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Special Issue
Assistantships and Fellowships in the Mathematical Sciences 1987–1988

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MATHEMATICAL REVIEWS

Since 1940, Mathematical Reviews has been the recognized reviewing and abstracting journal covering published mathematical research literature. Over 40,000 reviews or abstracts, by 12,000 international reviewers, are published each year. The reviews in each issue are arranged according to the 1980 Mathematics Subject Classification (1985 Revision). Subscriptions include annual author and subject indexes. Published monthly.

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CURRENT MATHEMATICAL PUBLICATIONS

This current awareness journal, which is published every three weeks, is a subject index of recent and forthcoming mathematical publications which have been classified by the editors of Mathematical Reviews. (The classification scheme used is the 1980 Mathematics Subject Classification (1985 Revision), published in the most recent annual index of Mathematical Reviews.) Each issue contains an author and key index; author and key indexes covering a half year are included in issues 9 and 17. Each issue contains a list of the serials represented in that issue and a separate listing of serial additions and changes, as well as a section containing the tables of contents of certain journals. Volume 19 is the 1987 volume.

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Volume 33, Number 7, December 1986

Special Issue
Assistantships and Fellowships in the Mathematical Sciences 1987–1988

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Statement by AMS Committee on Employment and Educational Policy

Current and prospective graduate students in mathematics and their advisors should be informed of employment prospects in the profession.


Committee on Employment and Educational Policy

(December 1986)

Stefan A. Burr
Edward A. Connors
Donald C. Rung, chairman

Data Subcommittee

Philip C. Curtis, Jr.
Gerald J. Janusz
Audrey A. Terras

Lida K. Barrett
Edward A. Connors, chairman
Lincoln K. Durst

Charlotte Lin
James W. Maxwell
Donald E. McClure

Stefan A. Burr, chairman

Donald C. Rung

The information about assistantships and fellowships on the following pages was supplied by 386 departments of mathematics, applied mathematics, statistics, computer science, and related mathematical disciplines representing 271 colleges and universities. Institutions in the United States are listed alphabetically by state, followed by Canadian institutions.

This year the information on the number of assistantships and fellowships in the mathematical sciences is presented in a modified format. In the section on “number anticipated,” the first number refers to the total number of assistantships and fellowships in the program. The second number following the colon is the number available to NEW students (first year or above). A dash is used to indicate “information not supplied by the department.”

The number following “Faculty” is the number of faculty members in the department who are full time employees in the institution and at least half-time in the department; the number following “Published” is the number of those reported who have published a technical paper or book in the last three years.

The section on “Graduate Students” refers to the number of graduate students in the department who are full-time (including teaching assistants), full-time first year, and part-time. Information not supplied in any of these categories is indicated by a dash.

Under the DEGREES AWARDED column the following terms have been used:

- Bachelor’s by inst. . . . . . . Number of bachelor’s degrees awarded by the institution
- Bachelor’s by dept. . . . . . . Number of bachelor’s degrees awarded by the department
- Master’s by dept. . . . . . . Number of master’s degrees awarded by the department

**Abbreviations used**

- ANT . . . Algebra or Number Theory
- AFA . . . Analysis or Functional Analysis
- GT . . . Geometry or Topology
- L . . . . Logic
- P . . . . Probability
- S . . . . Statistics
- CS . . . . Computer Science
- OR . . . Operations Research
- AM . . . . Applied Mathematics
- ME . . . . Mathematics Education

Under the SERVICE REQUIRED column, hours per week section, “c” denotes contact hours.
Mathematical Sciences Assistantships and Fellowships

for Graduate Study at Universities in 1987-1988 for new students, first year or above

Alabama

Alabama A&M University, Normal 35762

MATHEMATICS
Jerry R. Shipman, Chairman

Applications due: 10/17/86
Faculty 13; Published 2
Graduate Students: full-time 10; full-time first year 0; part-time 10

Teaching Assistantship (1:1)  4250  9 20  Teaching

University of Alabama in Birmingham 35294

BIOSTATISTICS AND BIOMATHEMATICS
Alfred A. Bartolucci, Chairman

Applications due: 3/20/87
Faculty 14; Published 14
Graduate Students: full-time 15; full-time first year 3; part-time 4

Fellowship (4:0)  6600  12 15  Research

MATHEMATICS
Roger T. Lewis, Chairman

Applications due: 3/1/87
Faculty 22; Published 10
Graduate Students: full-time 6; full-time first year 3; part-time 3

Teaching Assistantship (7:7)  5700  9
Research Assistantship (1:1)  6100  12 1200
Scholarship (2:1)  1000  9 1200

University of Alabama in Huntsville 35899

MATHEMATICS AND STATISTICS
Peter M. Gibson, Chairman

Applications due: 3/1/87
Faculty 19; Published 15
Graduate Students: full-time 12; full-time first year 5; part-time 32

Teaching Assistantship (8:4)  6000-11000  9  Waived  20  Teaching, assisting
Research Assistantship (4:2)  6000-11000  9  Waived  20  Research

University of Alabama, Tuscaloosa 35487

MANAGEMENT SCIENCE AND STATISTICS
F. H. Barron, Head

Applications due: Open
Faculty 15; Published 14
Graduate Students: full-time 35; full-time first year 10; part-time 14

Teaching Assistantship (14:5)  5500-6000  9  6  Teaching
Research Assistantship (4:1)  5500-7500  9  20  Research

MATHEMATICS
Alan Hopewasser, Chairman

Applications due: 6/30/87
Faculty 36; Published 27
Graduate Students: full-time 22; full-time first year 9; part-time 1

Teaching Assistantship (19.5:10)  7104-7829*  9  200  20  Teaching
*Includes tuition grant of $652 per semester and out-of-state fees are waived.

University of South Alabama, Mobile 36688

MATHEMATICS AND STATISTICS (Ad on p. 1036)
Suzanne McGill, Chair

Applications due: 4/1/87
Faculty 28; Published 15
Graduate Students: full-time 2; full-time first year 2; part-time 3

Fellowship (4:3)  5300  9  135  12-15  Grading, tutoring

Bachelor's by inst.  375
Bachelor's by dept.  5
Master's by dept.  0

Bachelor's by inst.  1363
Bachelor's by dept.  16
Master's by dept.  0

Bachelor's by inst.  641
Bachelor's by dept.  14

Bachelor's by inst.  2263
Bachelor's by dept.  31
Master's by dept.  6

Ph. D. (83/86) S 3. Total: 3

Bachelor's by inst.  2263
Bachelor's by dept.  19
Master's by dept.  2

Bachelor's by inst.  1025
Bachelor's by dept.  5
Master's by dept.  0
TYPE OF ASSISTANCE | STIPEND | FEES | SERVICE REQUIRED | DEGREES AWARDED
---|---|---|---|---
(Total no.: no. anticipated) | paid to student | paid by student ($) | hours | type

**Alaska**

University of Alaska, Fairbanks 99775

MATHEMATICAL SCIENCES
Cliff Lando, Head

Applications due: Open
Faculty 22; Published 12
Graduate Students: full-time 14, full-time first year 4; part-time -

Teaching Assistantship (12.5) 7200 9 1414* 15 Teaching and/or lab assistance

*In-state tuition.

**Arizona**

Northern Arizona University, Flagstaff 86011

MATHEMATICS
John Hagood, Chairman

Applications due: 4/1/87
Faculty 35; Published 18
Graduate Students: full-time 8; full-time first year 5; part-time 18

Teaching Assistantship (7:9) 5000-5500 9 * 41/4 Teaching, tutorial
5* Teaching

*In-state: under 6 hours $60 per hour, over 6 hours $113; out-of-state: under 6 hours $80 per hour, from 7-12 hours $2626-$3692.

**UNIVERSITY OF SOUTH ALABAMA**

The Department of Mathematics and Statistics offers a program leading to the M.S. degree in mathematics. The program combines a basic graduate education in mathematics with options for study in computer science, operations research, statistics, and the more traditional areas of mathematics.

Financial assistance is available through graduate assistantships. The current stipend is $5,300 for three quarters plus a waiver of tuition and fees. Duties consist of grading and tutoring in the Department's tutor lab for a combined total of 12-15 hours per week.

The Department consists of 24 full-time faculty members. The University, located in the historic city of Mobile, has an enrollment of 9,900. Mobile Bay and the nearby Gulf of Mexico provide an attractive setting for many recreational activities.

For further information, please write to: Dr. Richard Hitt, Graduate Coordinator
Department of Mathematics and Statistics
University of South Alabama
Mobile, AL 36688

The University of South Alabama provides equal educational opportunities to and is open and accessible to all qualified students without regard to race, color, creed, national origin, sex or qualified handicapped, with respect to all of its programs and activities.

**NORTHERN ARIZONA UNIVERSITY**

The department offers programs of study leading to the M.S. and M.A.T. degrees. Faculty research interests include algebra, analysis, combinatorics, geometry, number theory, topology, approximation theory, differential equations, statistics, and mathematics education. Small classes permit close interaction with faculty.

The department is actively seeking qualified candidates for graduate study and teaching assistantships (stipends begin at $5000). For more information, write: Peter Horn, Department of Mathematics, Box 5717, Northern Arizona University, Flagstaff, AZ 86011.

Northern Arizona University is located in Flagstaff amidst pine forests at an altitude of 7000 feet in the mountains of Northern Arizona. NAU IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION. WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.
University of Arizona, Tucson 85721

Computer Science Applications due: 3/1/87
Gregory R. Andrews, Head Faculty 14; Published 12
Graduate Students: full-time 87; full-time first year 17; part-time 70

Teaching Assistantship (13:12) 6500-6870 9 60/unit* 20 Teaching
Research Assistantship (15:0)** 7414-9132 9-12 60/unit* 20-40 Research

*Less than 7 units.
**Research grant supported.

Mathematics (Ad on p. 1038) Applications due: 3/5/87
Alan C. Newell, Head Faculty 52; Published 39
Graduate Students: full-time 58; full-time first year 1; part-time 1

Fellowship (2:2) 1000-2000 9 4260
Teaching Assistantship (55:) 7592-11388 9 1136 4
Research Assistantship (5:5) 3487-8999 9 1136 10-20

Arkansas

University of Arkansas, Fayetteville 72701

Computer Science Applications due: 2/17/87
Greg Starling, Chairman Faculty 7; Published 6
Graduate Students: full-time 30; full-time first year 15; part-time 5

Teaching Assistantship (6:2) 6000 9 20 Grading, teaching

Mathematical Sciences Applications due: 3/1/87
B. L. Madison, Chairman Faculty 25; Published 17
Graduate Students: full-time 36; full-time first year 11; part-time 4

Teaching Assistantship (37:15) 6000-6400 9 6

California

California Institute of Technology, Pasadena 91125

Mathematics Applications due: 1/1/87
David B. Wales, Executive Officer Faculty 24; Published 22
Graduate Students: full-time 24; full-time first year 6; part-time -

Fellowship (3:-) 8400 12 1
Teaching Assistantship (21:) 6799-7723 9 4

California State University, Fresno 93740

Mathematics Applications due: 4/25/87
Noel C. Harberton, Chairman Faculty 21; Published 9
Graduate Students: full-time 25; full-time first year 14; part-time 4

Teaching Assistantship (4:1) 7474-8126 9 240-360 20 Teaching, grading
Graduate Assistantship (4:1) 5720-5930 9 240-360 20 Teaching, grading

California State University, Hayward 94542

Mathematics and Computer Science Applications due: Open
William R. Nico, Chair Faculty 39; Published 14
Graduate Students: full-time 11; full-time first year 7; part-time 47

Teaching Assistantship (12:6) 1966/qtr. 9 222/qtr. 4 Teaching
Grading Assistantship (12:6) 6.50/hr. 12 222/qtr. 6-9 Grading

Statistics Applications due: Open
Michael Orkin, Chairman Faculty 8; Published 5
Graduate Students: full-time 54; full-time first year 1; part-time -

Graduate Assistantship (4:2) 341-512/mo. By qtr. 10-15 Grading, tutoring

1037
FELLOWSHIPS $15,000

The University of Arizona's Department of Mathematics and Program in Applied Mathematics are looking for outstanding graduate students. The stipend will be $15,000 for twelve months and will be available for at least three years. Applications should be received by January 15, 1987. For more information please write to:

Dr. Alan C. Newell
Department of Mathematics
University of Arizona
Tucson, Arizona 85721

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<th>TYPE OF ASSISTANCE</th>
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<td>California State University, Los Angeles 90032</td>
<td>Applications due: 3/15/87</td>
<td>Graduate Students: full-time 20, full-time first year 6; part-time 25</td>
<td>Bachelor's by inst. 4050</td>
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<td>WAYNE BISHOP, Chair</td>
<td>Faculty 35; Published 20</td>
<td>6600-14500</td>
<td>12</td>
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<td>California State University, Northridge 91330</td>
<td>Applications due: 7/1/87</td>
<td>Graduate Students: full-time 6; full-time first year 0; part-time 30</td>
<td>Bachelor's by inst. 3213</td>
<td>Bachelor's by dept. 19</td>
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<td>D. H. Potts, Chairman</td>
<td>Faculty 40; Published 8</td>
<td>6150</td>
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<td>Claremont Graduate School, Claremont 91711</td>
<td>Applications due: 2/15/87</td>
<td>Graduate Students: full-time 19; full-time first year 11; part-time 11</td>
<td>Master's by dept. 4</td>
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<td>1000-5000</td>
<td>9</td>
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<td>Applications due: 4/1/87</td>
<td>Graduate Students: full-time 26; full-time first year 26; part-time 154</td>
<td>Bachelor's by inst. 4444</td>
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<td>David H. Carlson, Chair</td>
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<td>Bachelor's by dept. 23</td>
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<td>California State University, Los Angeles 90032</td>
<td>Applications due: 3/15/87</td>
<td>Graduate Students: full-time 20, full-time first year 6; part-time 25</td>
<td>Bachelor's by inst. 4050</td>
<td>Bachelor's by dept. 100</td>
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<td>Master's by dept. 4</td>
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**CALIFORNIA STATE UNIVERSITY, LOS ANGELES**

**M.S. IN PURE OR APPLIED MATHEMATICS**

The Department of Mathematics and Computer Science offers programs leading to the masters degree in either pure or applied mathematics. Graduate Teaching Assistantships are available to all candidates who are eligible for classification into the graduate program and who maintain acceptable performance. Assistantship support is approximately $6,600 for teaching one course per quarter and up to $14,500 for teaching two courses for 4 quarters. For more information write:

WAYNE BISHOP, Chair
Department of Mathematics and Computer Science
California State University, L.A.
Los Angeles, California 90032

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY/HANDICAPPED/TITLE IX EMPLOYER
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San Jose State University, San Jose 95192

**MATHEMATICS AND COMPUTER SCIENCE**

Veril L. Philips, Chairman

Applications due: 5/1/87

Faculty 68; Published 35

Graduate Students: full-time 20; full-time first year 12; part-time 20

Teaching Fellowship (18-20:18-20) 4485-8970 9 782* 3-6 Teaching

*Nonresidents and foreign students pay an additional $141 per unit.

Stanford University, Stanford 94305

**ENGINEERING-ECONOMIC SYSTEMS**

David G. Luenberger, Chairman

Applications due: 2/15/87

Faculty 10; Published 10

Graduate Students: full-time 132; full-time first year 55; part-time 8

**Graduate Assistants serve for one quarter as Teaching Fellows, for one quarter as Course Assistants, and for one quarter as Research Assistants, or serve for three quarters as Course Assistants.**

**Teaching Fellows have three contact hours per week, and have sole responsibility for a class. Course Assistants have six contact hours per week. Research Assistants have no formal classroom duties.**

University of California, Berkeley 94720

**MATHEMATICS**

J. W. Addison, Chairman

Applications due: * Faculty 67; Published 67

Graduate Students: full-time 234; full-time first year 67; part-time 13

**Fellowships: 1/15/87; assistantships: 2/15/87.**


**Does not include appointments to supplement fellowship stipends.**

tCalifornia resident: $1406.50; nonresident: $5492.50. Nonresidents with teaching assistantships or research assistantships usually receive scholarships covering one-half to two-thirds of the nonresident tuition ($2043 per semester).

University of California, Davis 95616

**MATHEMATICS**

Marc Mangel, Chair

Applications due: * Faculty 33; Published 28

Graduate Students: full-time 58; full-time first year 21; part-time 1

**Fellowships: 1/15/87; assistantships: 2/15/87.**

**Plus fees.***

K-12 public schools.

1040
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<td><strong>STATISTICS</strong></td>
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<td>Fellowship**</td>
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<td>*All hold teaching assistantship also.&lt;br&gt;**Includes nonresident tuition awarded to some students.&lt;br&gt;***Nonresident tuition: $4086.</td>
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<tr>
<td>University of California, Los Angeles 90024</td>
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<tr>
<td>BIOMATHEMATICS</td>
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<tr>
<td>Kenneth Lange, Chair</td>
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<td>Graduate Students: full-time; full-time first year; part-time 2</td>
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<td>*California resident: $1346</td>
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<td>University of California, Riverside 92521</td>
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<td>MATHEMATICS AND COMPUTER SCIENCE</td>
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<td>David E. Rush, Chair</td>
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<td>Fellowship (2-3-3-3)</td>
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<td>1346</td>
<td>3-7 Teaching, research</td>
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<td>Research Assistantship (55:20-25)</td>
<td>10062-11214</td>
<td>9</td>
<td>1346</td>
<td>7 Teaching</td>
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<tr>
<td>Research Assistantship (30-15/20)</td>
<td>7800-12000</td>
<td>9-12</td>
<td>1346</td>
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<td>W. G. Cumberland, Chairman</td>
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<td>Special Reader (9-12)</td>
<td>1440-2880</td>
<td>3</td>
<td>1346</td>
<td>8-15 Assistance</td>
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<td>10404</td>
<td>12</td>
<td>Waived</td>
<td>20 Research</td>
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<td>Chancellor's Fellowship*</td>
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<td>Nonresident Tuition Waiver (6-12)</td>
<td>4086</td>
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<td></td>
<td>20 Research</td>
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<tr>
<td>*Application date: 1/15/87. Awarded to continuing graduate students. The number of awardees is usually ten to twelve. Fellows will also receive at least two additional years of support in the form of Teaching Assistantships, Research Assistantships or fellowship support, subject to continuing academic achievement.</td>
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1041
University of California at San Diego, La Jolla 92093

MATHMATICS

Hubert Halkin, Chairman

Applications due: 2/1/87

Faculty 47; Published 44

Graduate Students: full-time 91; full-time first year 33; part-time 17

Bachelor's by inst. 1968

Bachelor's by dept. 67

Ph. D. (83/86) ANT 6, AFA 2

Master's by dept. 13

Teaching GT 1, P 1, S 5, AM 1, Other 4.

Total: 20

Fellowship (5:3) 6750-11000 9-12

Teaching Assistantship (50:20) 10062 9 * 3-4 Teaching

Research Assistantship (12:3) 8000-10404 9-12

Scholarship (13:6) Fees and/or tuition **

In 1986-1987 all graduate students (resident and nonresident) pay per quarter $480.50. Nonresident graduate students pay per quarter $1362 tuition in addition to the above. Health insurance ($78 per quarter) is mandatory for foreign students.

**The 13 Tuition and/or Fee Scholarships are given in addition to the Teaching Assistantships mentioned above.

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Programs. The Department offers the degrees Master of Arts (M.A.), Master of Arts in Teaching (M.A.T.) and Doctor of Philosophy (Ph.D.) in Mathematics. Students have the option of working within an interdisciplinary program in applied mathematics.

Financial support. Currently 70% of all full-time graduate students receive full financial support and another 20% receive partial support, through a mixture of fellowships, research assistantships and teaching assistantships. Normally admission to the Ph.D. program is accompanied by an offer of financial support, guaranteed for four years if the student is making satisfactory progress towards the doctorate.

Full-time teaching assistants teach four hours of class and hold three office hours each week and they help proctor and grade examinations.

APPLIED AND COMPUTATIONAL MATHEMATICS AT UCLA

UCLA has been awarded a grant under the University Research Initiative to expand its research and teaching program in Applied and Computational Mathematics. As a result there are vacancies for suitably qualified applicants wishing to join the program as graduate student research assistants. These assistantships carry a salary of at least $8500 per academic year plus all tuition and fees.

Areas of special interest include computational fluid dynamics, scientific computation, nonlinear waves, perturbation methods, magnetohydrodynamics, bifurcation methods and exploration seismology.

For further information on our programs write to Professor Charles G. Lange, Graduate Vice-Chairman, Department of Mathematics, University of California, Los Angeles, CA 90024.

UNIVERSITY OF CALIFORNIA, RIVERSIDE

The department has Masters and Ph.D. programs in Mathematics and a Masters program in Computer Science. Areas of specialization include: Applied Mathematics, Differential Equations, Functional Analysis, Approximation Theory, Commutative Algebra, General Topology, Algebraic Semi-lattices and semi-groups, Probability and Statistics, Differential Geometry, Several Complex Variables, Lie Algebras, Algebraic Geometry, and Geometric Topology. UCR has a total of about 4500 students, including approximately 1300 graduate students. The Department of Mathematics has a faculty of 23 and about 65 graduate students, a ratio which enables faculty members to work closely with each student. Excellent computing facilities are being regularly expanded and updated. Write to:

Graduate Advisor
Department of Mathematics and Computer Science
University of California, Riverside, CA 92521
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<tr>
<th>TYPE OF ASSISTANCE</th>
<th>STIPEND</th>
<th>FEES</th>
<th>SERVICE REQUIRED</th>
<th>DEGREES AWARDED</th>
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<td>paid to student</td>
<td>paid by</td>
<td>hours type</td>
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<td>dollars months</td>
<td>student ($)</td>
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<td>Fellowship (3:3)</td>
<td>2690-6776</td>
<td>9+</td>
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<td>Ph. D. (83/86)</td>
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<td>10062-11214</td>
<td>9+</td>
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<td>4000-10404</td>
<td>12+</td>
<td>* 15-20* Research</td>
<td>GT 1, S 4, CS 3, AM 2.</td>
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<td>Tuition Waiver (16 qtrs:9 qtrs.)</td>
<td>1805-5422.50**</td>
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<td>Total: 17</td>
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*California resident: $1336; nonresident: $5422.20.
**Non-California residents only.

GRADUATE MATHEMATICS AT LA JOLLA, CALIFORNIA

PROGRAMS: (i) M.A. and Ph.D. degrees in pure mathematics offer studies in all major fields of pure mathematics, and in probability, statistics, combinatorics and numerical analysis. A new group in geometric topology, differential geometry and partial differential equations has formed around Professors Shing-Tung Yau and Michael Freedman. We anticipate that it will be a major force during the next few years. (ii) The M.A. in applied mathematics and the M.S. in statistics are special one to two year courses of study emphasizing applicable mathematics. The latter concentrating on statistics and related subjects.

FINANCIAL AID: Research Assistantships (approximately $867.00 per month + Tuition and/or Fees). Teaching Assistantships (approximately $1,118.00 per month for 9 months). San Diego Fellowship (for educationally disadvantaged students; approximately $750.00 per month + Fees and/or Tuition for 9 months). Powell Fellowship (approximately $12,000.00 for 12 months, including Fees).

Department of Mathematics - UNIVERSITY OF CALIFORNIA, SAN DIEGO
La Jolla, California 92093

UNIVERSITY OF CALIFORNIA, SANTA BARBARA
GRADUATE PROGRAMS IN MATHEMATICS

PROGRAMS: Masters of Arts in Mathematics, Applied Mathematics, Ph.D. in Mathematics, Ph.D. in Mathematics with an emphasis in Science applications.

FINANCIAL AID: Teaching Assistantships (approx. $10,062) and a number of Research Assistantships and Tuition Fellowships are available. Additional fellowships are awarded on the basis of academic merit.

The Department is interested in the advancement of women and minorities in the field of mathematics. We especially encourage applications from women and minorities, for whom need-based and merit-based fellowships are available.

For full information and application forms, write to:
Ms. Leslie Buxton
GRADUATE AFFAIRS ASSISTANT
Department of Mathematics
University of California
Santa Barbara, Ca. 93106
(805) 961- 4348
STIPEND FEES SERVICE REQUIRED DEGREES AWARDED
(Total no. : no. anticipated) paid to student paid by student ($) hours type Academic year
OF ASSISTANCE dollars months

STATISTICS AND APPLIED PROBABILITY Applications due: 1/31/87 Bachelor's by dept. 0
J. Gani, Chairman Faculty 10; Published 10 Master's by dept. 4
J. Gani, Chairman Graduate Students: full-time 33; full-time first year 8; part-time 9 Ph. D. (83/86) S 4. Total: 4
Fellowship (1:1) 4515
Teaching Assistantship (8:4) 10062 9 15-20 Grading, teaching
Research Assistantship (1:1) 10404 9 15-20 Grading, research
Annual Tuition Waiver (5:5) 19068 9 15-20 Grading, teaching

University of Southern California, Los Angeles 90089
MATHMATICS Applications due: 5/1/87 Bachelor's by inst. 2732
Ronald E. Bruck, Chairman Faculty 36; Published 36 Bachelor's by dept. 13
Graduate Students: full-time 90; full-time first year 35; part-time 3 Master's by dept. 17
Fellowship (6:*) 3600 9 Ph. D. (83/86) ANT 1, AFA 3,
Teaching Assistantship (76:30) 7452-8256 9 98 6 GT 1, Other 1. Total: 6
Teaching Assistantship (3:3) 7452-8256 9 98
*Dean's Fellowship supplements other support for all who qualify.

Colorado
Colorado School of Mines, Golden 80401
MATHMATICS Applications due: 7/1/87 Bachelor's by inst. 521
Ardel J. Boes, Head Faculty 17; Published 13 Bachelor's by dept. 29
Graduate Students: full-time 15; full-time first year 4; part-time 10 Master's by dept. 3
Fellowship (1:-) 700-750 9 0-8
Teaching Assistantship (10:8) 650-750 9 12 Grading, teaching
Research Assistantship (5:2-4) 650-750 9 12 Research

Graduate Mathematics at the University of Southern California


Graduate study is enhanced by an outstanding faculty, a vigorous schedule of seminars and colloquia, and an extensive program of Distinguished Lecturers and visitors. From Oktoberfest (hosted by our German students), through the daily teas, to the end-of-year pizza party, graduate students participate fully in the Department's social as well as mathematical life.

Almost all graduate students receive financial aid. The most common form is a Teaching Assistantship, which in 1986-87 carries a nine-month salary between $7,452 and $8,256, plus full tuition remission (12 units/semester) and a bonus 12 units of remission for the Summer. Additional support is available for summer teaching. All students who meet specific G.P.A. and GRE criteria receive a $3,600 Dean's Fellowship, in addition to any other form of support. Several Research Assistantships are available to (usually senior) students working in various areas of Applied Mathematics, and a limited number of Fellowships are available through the Graduate School.

For more information, write to:

Graduate Vice-Chairman
Department of Mathematics
University of Southern California
Los Angeles, CA 90089-1113
<table>
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<tr>
<th>Type of Assistance</th>
<th>Stipend</th>
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<th>Service Required</th>
<th>Degrees Awarded</th>
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*Some summer Research and Teaching Assistantships available.

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<td>Research Assistantship (2:1)</td>
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<td>Other (5:2)</td>
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<td>Consulting</td>
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<td>15-20</td>
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<td>Master's by dept.</td>
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<td>15-20</td>
<td>Research</td>
<td>Master's by dept.</td>
<td>8</td>
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<td>Graduate Students: full-time 5; full-time 1; part-time 4</td>
<td>Total: 10</td>
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</table>

The University of Colorado at Denver announces a new Ph.D. in Applied Mathematics

Computational Mathematics • Operations Research • Applied Statistics • Discrete Mathematics
Home of the Computational Mathematics Group
Research in supercomputing, algorithms for advanced and parallel architectures.
CU-Denver, located on the Front Range of the Colorado Rockies, is emerging as one of the leading
applied mathematics centers in the West.
Teaching and research assistantships available.

Write or call: Graduate Program, Mathematics Department, Campus Box 170,
University of Colorado at Denver, 1100 14th St., Denver, CO 80202, (303) 556-8442.

CU-Denver is an affirmative action/equal opportunity institution.
University of Northern Colorado, Greeley 80639

MATHMATICS AND APPLIED STATISTICS

Applications due: 4/1/87

Faculty 18; Published 8

Graduate Students: full-time 21; full-time first year 8; part-time 0

Teaching Assistantship (4:4) 4800-5400 9 4275 6 Teaching

Scholarship* 480–5400

*Negotiable, if any.

Connecticut

Central Connecticut State University, New Britain 06050

MATHMATICS AND COMPUTER SCIENCE

Applications due: 6/15/87

Faculty 33; Published 5

Graduate Students: full-time 13; full-time first year 6; part-time 49

Teaching Assistantship (3:3) 4400 9 1225* 6 Teaching

*Out-of-state: $3034.

University of Connecticut, Storrs 06268

MATHMATICS

Applications due: Open

Faculty 34; Published 30

Graduate Students: full-time 51; full-time first year 26; part-time 5

Fellowship (3:2) 7135-8870 9

Teaching Assistantship (3:2) 7135-8870 9

Research Assistantship (3:2) 7444 9

Lecturer (10:2) 7135-8870 9

The University of Connecticut

Department of Mathematics

Graduate Studies in Pure and Applied Mathematics and Actuarial Science

Degree Programs. The Department offers strong programs of study leading to the M.S. and Ph.D. degrees in a wide variety of areas of pure and applied mathematics and an excellent full program in Actuarial Science leading to the M.S. degree. Flexible plans of study are individually tailored to meet each student's needs and interests. Small classes and an active research faculty provide the opportunity for graduate students to work closely with individual faculty members.

Financial Aid. Full financial support is readily available. Teaching assistants for 1987-88 will receive a stipend ranging from $7,500 to $9,200, depending on academic progress. All teaching assistants receive a tuition waiver. The usual teaching load for first-year assistants is four contact hours per week. Highly qualified applicants are eligible for supplemental fellowships of $500 to $1,000. In addition, summer fellowships and lectureships are available and cooperative job opportunities exist with nearby companies.

Location. The University is within easy reach of the major metropolitan areas of New England and New York City, but is located in an unspoiled rural area surrounded by picturesque forests and farmlands. A full range of recreational and cultural activities is available on campus and close by.

For further information and application forms, please write to:

Graduate Chairman
Department of Mathematics, U-9
The University of Connecticut
Storrs, CT 06268
The Mathematics Department offers a program of study and research leading to the M.A. and Ph.D. degrees. Emphasis is on pure mathematics and theoretical computer science. The small size of the program, with roughly one faculty member per graduate student, contributes to an atmosphere of accessibility and informality. Students receive financial support and tuition waivers.

For further information:
Graduate Education Committee
Department of Mathematics
Wesleyan University
Middletown, CT 06457
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<td><strong>University of Delaware, Newark 19716</strong></td>
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<td>MATHEMATICAL SCIENCES</td>
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<tr>
<td>Ivar Stakgold, Chairman</td>
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<tr>
<td>H. D. Junghenn, Chairman</td>
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<td>Teaching Assistantship (15:8)</td>
<td>6000-9000</td>
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<td>1100</td>
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<tr>
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<td>Graduate Students: full-time 120; full-time first year 50; part-time 20</td>
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<td>300</td>
<td>20 Research</td>
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<td>Minority (3:2)</td>
<td>10000</td>
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</tbody>
</table>

1048
**MATHEMATICS**

Applications due: *Faculty 33; Published 25*

Graduate Students: full-time 55; full-time first year 14; part-time 2

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>Stipend Fees</th>
<th>Service Required</th>
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<td>Fellowship (3:2)</td>
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<tr>
<td>Teaching Fellowship (2:2)</td>
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<td>12 **</td>
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<tr>
<td>Teaching Assistantship (70:30)**</td>
<td>8400-11200†</td>
<td>9-12†</td>
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<td>Research Assistantship (6:2)</td>
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<td>Minority (2:2)</td>
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*Fellowships: 1/15/87; assistantships: 4/1/87.*

**Resident: $323; nonresident: $452, under normal availability of waivers.***

**New foreign teaching assistants to begin in June or July.***

Stipend proportional to months of service.

Service reduced to 13 hours per week first semester.

**STATISTICS**

Applications due: 2/15/87

Faculty 16; Published 16

Graduate Students: full-time 21; full-time first year 12; part-time 3

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>Stipend Fees</th>
<th>Service Required</th>
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</thead>
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<tr>
<td>Research Assistantship (5:0)</td>
<td>8700</td>
<td>12 *</td>
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</table>

*In-state: $57.46 per hour; out-of-state: $170.86 per hour, unless waived.

University of Central Florida, Orlando 32816

**MATHEMATICS**

Applications due: 3/15/87

Faculty 16; Published 12

Graduate Students: full-time 12; full-time first year 6; part-time 13

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>Stipend Fees</th>
<th>Service Required</th>
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<td>Teaching Assistantship (12:15)</td>
<td>6500-7000</td>
<td>9 756.24 20 Teaching, research, grading</td>
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</table>

University of Florida, Gainesville 32611

**INDUSTRIAL AND SYSTEMS ENGINEERING**

Applications due: 1/15/87

Faculty 18; Published 13

Graduate Students: full-time 29; full-time first year 11; part-time 27

<table>
<thead>
<tr>
<th>Type of Assistance</th>
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<th>Service Required</th>
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<td>5600-8400</td>
<td>9 63.60/cr. 10-20 Grading, teaching</td>
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<td>Research Assistantship (5:0)</td>
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<td>9 63.60/cr. 10-20 Research</td>
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**MATHEMATICS**

Applications due: 3/15/87

Faculty 44; Published 35

Graduate Students: full-time 61; full-time first year 20; part-time 3

<table>
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<tr>
<td>Teaching Assistantship (70:25)</td>
<td>7200-8200</td>
<td>9 500* 4*</td>
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</tbody>
</table>

*Tuition waivers available.

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**GRADUATE STUDY IN OPERATIONS RESEARCH**

**AT DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING**

**UNIVERSITY OF FLORIDA, GAINESVILLE, FL**

We invite applications from students with a solid mathematical background for graduate work in operations research and related disciplines. We offer curricula leading to the M.S. and Ph.D. degrees in which programs of study may be tailored to emphasize the individual interests of students. There are excellent opportunities for M.S. students, as well as for Ph.D. candidates, to work closely with the faculty on theoretical or applied research topics.

Application forms and additional information are available from:

**GRADUATE COORDINATOR**

**DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING**

**UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611**

1049
University of Miami, Coral Gables 33124
MATHEMATICS AND COMPUTER SCIENCE
Shair Ahmad, Chairman
Fellowship (2:1)
Graduate Students: full-time 45; full-time first year 18; part-time 21
Teaching Assistantship (24:12)

Applications due: 3/15/87
Bachelor's by inst. 1612
Bachelor's by dept. 45
Ph. D. (83/86) ANT 1, AFA 3,
GT 3, Other 1. Total: 8

University of North Florida, Jacksonville 32216
MATHEMATICAL SCIENCES
Leonard J. Lipkin, Chairperson
Fellowship (2:1)
Graduate Students: full-time 4; full-time first year 3; part-time 40
Teaching Assistantship (5:5)

Applications due: 3/15/87*
Bachelor's by inst. 792
Bachelor's by dept. 5
Master's by dept. 5

University of South Florida, Tampa 33620
MATHEMATICS
Kenneth L. Pothoven, Chairman
Fellowship (2:2)
Graduate Students: full-time 44; full-time first year 17; part-time 16
Teaching Assistantship (50:20)

Applications due: 3/15/87
Bachelor's by inst. 4034
Bachelor's by dept. 22
Ph. D. (83/86) ANT 1, AFA 3,
P 3. Total: 7

University of West Florida, Pensacola 32514
MATHEMATICS AND STATISTICS
David L. Sherry, Chairman
Fellowship (2:3) 3
Teaching Assistantship (3:2)

Faculty; Published 7
Graduate Students: full-time 2; full-time first year 1; part-time 10

Faculty 31; Published 19

Faculty 35; Published 19

Faculty 13; Published 12

Faculty 31; Published 19

Faculty 35; Published 19

Faculty 35; Published 19

Faculty 13; Published 12

Faculty 35; Published 19

Faculty 35; Published 19

Faculty 35; Published 19

Faculty 35; Published 19

Faculty 35; Published 19

Applications due: 3/15/87
Bachelor's by inst. 1200
Bachelor's by dept. 25
Master's by dept. 2

Teaching Assistantship (3:2)

5000-6500 9 15 Grading, teaching

University of South Florida — Tampa, Florida
Graduate Studies in Mathematics Leading to M.A. and Ph.D. Degrees

Our 31 full-time faculty members represent most areas of pure and applied mathematics and statistics. Programs leading to M.A. and Ph.D. degrees are available in Analysis, Applied Mathematics, Approximation Theory, Differential Equations, Number Theory, Probability, Computational Statistics, Statistics, Theoretical Computer Science, and other areas. Inter-disciplinary programs with the College of Engineering and the College of Medicine are available. The special facilities of the department include an Institute for Constructive Mathematics, and a Center for Mathematical Services in which qualified students and faculty can become involved in consulting services to business, industries, hospitals, and schools in the Tampa Bay Area. The University has over 27,000 students and three branch campuses. The main campus is located at the north edge of the city of Tampa. The area is a resort area boasting of a warm climate, and many recreational and cultural attractions.

Financial aid is available to qualified students in the form of Fellowships and Teaching Assistantships. Teaching Assistantships carry a stipend of between $7,500 and $9,900 for nine months. Tuition waivers are also available to qualified students. In addition, the Department nominates students each year to compete for Graduate Council Fellowships, These awards range between $5,500 and $6,000 for one year, plus tuition. For further information, write to:

Dr. K. L. Pothoven, Chairman — Department of Mathematics — University of South Florida — Tampa, FL 33620

Georgia
<table>
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<td>Ray A. Kunze, Head</td>
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**Emory University**

**Department of Mathematics and Computer Science**

The Department offers programs leading to the M.A., M.S., and Ph.D. degrees in Mathematics and to the M.S. degree in Mathematics-Computer Science and Statistics-Computer Science. Ph.D. students in Mathematics may specialize in many areas including algebra, analysis and combinatorics. Advanced study is supported by excellent library holdings and computing facilities.

**Financial Aid** — The Department offers aid in the form of teaching assistantships, fellowships, and tuition waivers. Awards carry a stipend of between $7,200 and $10,000 for nine months, plus tuition. Assistants typically teach one class per semester.

**Woodruff Fellowships** — The University also offers a number of Woodruff Fellowships carrying a $10,000 award and full tuition for three academic years. The Department may nominate five students to compete for these awards. Students with outstanding undergraduate records are particularly urged to apply for these awards.

**Additional summer support is also available for interested students.**

For information contact: Ronald J. Gould
Department of Mathematics and Computer Science
Emory University
Atlanta, Georgia 30322

1051
<table>
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<tr>
<th>TYPE OF ASSISTANCE</th>
<th>Stipend</th>
<th>Fees</th>
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<td>Lynne Billard, Head</td>
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<td>Assistantship (29:29)</td>
<td>Graduate Students: full-time 31; full-time first year 4; part-time 18</td>
<td>6046–6450*</td>
<td>1662*</td>
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Hawaii

University of Hawaii, Honolulu 96822

MATHEMATICS
Ronald P. Brown, Chairman

Applications due: 3/1/87
Faculty 36; Published 30
Graduate Students: full-time 18; full-time first year 3; part-time 0

Teaching Assistantship (11:1) 5444–7164
9 3 Teachers Ph. D. (83/86) AFA 2, L 1; Other 2. Total: 5

Idaho

Idaho State University, Pocatello 83209

MATHEMATICS
Richard D. Hill, Chairperson

Applications due: 3/15/87*
Faculty 14; Published 8
Graduate Students: full-time 17; full-time first year 5; part-time 2

Fellowship (5:-) 5800
Teaching Assistantship (7:-) 4600

*Late applications considered.

University of Idaho, Moscow 83843

MATHEMATICS AND APPLIED STATISTICS
James Calvert, Chairman

Applications due: 3/15/87
Faculty 19; Published 12
Graduate Students: full-time 20; full-time first year 10; part-time 0

Teaching Assistantship (20:8) 7300
9 672 20

Illinois

Eastern Illinois University, Charleston 61920

MATHEMATICS
Alphonso J. DiPietro, Chairman

Applications due: 3/2/87
Faculty 26; Published 10
Graduate Students: full-time 19; full-time first year 10; part-time 5

Teaching Assistantship (–12) 4725
9 5

Graduate Assistantship (–2) 3600
9 10

*Tutorial or computer programming laboratory.

M. A. AND PH.D. PROGRAMS AT HAWAII

The University of Hawaii Mathematics Department has an excellent faculty of 36 members. The Ph.D. program is relatively new, and the small number of graduate students makes for an extremely favorable student-faculty ratio. The academic, living, and recreational environments are very agreeable. Teaching assistantships are available starting at $6,444 plus a tuition waiver. Additional compensation is available for summer teaching. For details write:

W. P. Hanf, Graduate Chairman — Department of Mathematics
University of Hawaii at Manoa — Honolulu, HI 96822

AN EQUAL OPPORTUNITY EMPLOYER
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<tr>
<th>TYPE OF ASSISTANCE</th>
<th>STIPEND FEES</th>
<th>SERVICE REQUIRED</th>
<th>DEGREES AWARDED</th>
<th>ACADEMIC YEAR</th>
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<td>Illinois Institute of Technology, Chicago 60616</td>
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<td>Graduate Students: full-time 13, full-time first year 4; part-time 5</td>
<td>Bachelor’s by inst.</td>
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<td>M. J. Frank, Chairman</td>
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<td>Bachelor’s by dept.</td>
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<td>Teaching Assistantship (7:3)</td>
<td>5800–6400</td>
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<td>6000</td>
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<td>APPLIED COMPUTER SCIENCE</td>
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<td>Graduate Students: full-time 9; full-time first year 9; part-time 13</td>
<td>Bachelor’s by inst.</td>
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<td>Lawrence C. Eggen, Chair</td>
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<td>Bachelor’s by dept.</td>
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<td>Teaching Assistantship (6:4)</td>
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<td>Graduate Students: full-time 31; full-time first year 14; part-time 13</td>
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<td>Bachelor’s by dept.</td>
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<td>Instructorship (15:3)</td>
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<td>12-14&quot; Teaching</td>
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<td>*Eight hours of tuition and fees waived.</td>
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<td>Loyola University, Chicago 60626</td>
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<tr>
<td>MATHMATICAL SCIENCES</td>
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<td>Faculty 25; Published 13</td>
<td>Graduate Students: full-time 12; full-time first year 7; part-time 68</td>
<td>Bachelor’s by inst.</td>
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<td>W. Cary Huffman, Chairman</td>
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<td>Bachelor’s by dept.</td>
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<td>Teaching Assistantship (8:6)</td>
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<td>Barry Dayton, Chair</td>
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<td>Bachelor’s by dept.</td>
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<td>Applications due: 3/1/87</td>
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<td>Graduate Students: full-time 49; full-time first year 21; part-time 12</td>
<td>Bachelor’s by inst.</td>
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<td>John L. Selfridge, Chair</td>
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<td>ENGINEERING SCIENCES</td>
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<td>Graduate Students: full-time 24; full-time first year 10; part-time 1</td>
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<td>R. A. Klipphardt, Chairman</td>
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<td>Arthur P. Hurter, Jr., Chairman</td>
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**Southern Illinois University, Carbondale 62901**

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Applications due: 3/1/87
Faculty: 14; Published: 14
Graduate Students: full-time 60; full-time first year 26; part-time 0

Yaakov L. Varol, Chairperson

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**Northern Illinois University**

DeKalb, Illinois

The Department of Mathematical Sciences offers graduate programs of instruction and research leading to the degrees of Master of Science and Doctor of Philosophy. There are 65 graduate students enrolled in these programs and the department has 40 graduate faculty. The major areas of research strength are algebra, analysis, differential equations, mathematics education, number theory, numerical analysis, and statistics.

The Master of Science degree is offered in pure, applied, and computational mathematics, mathematics education, and applied probability and statistics. Each student’s program is tailored to his or her background and career objectives.

The department has recently instituted a Ph.D. program which is of a nontraditional nature. The program speaks to today’s needs and prepares researchers in the mathematical sciences who possess a unique blend of knowledge in the mathematical sciences and awareness of applications of that knowledge. Students develop a perspective which sees the mathematical sciences as an integrated whole with appropriate roles played by pure and applied considerations. The required combination of course work and experience enables the student who completes the program to pursue a career in either the academic or nonacademic world.

The department currently has 48 graduate teaching assistants and anticipates that this number will increase next year. Anticipated nine month stipends range from $5,700 for first year students to $7,500 for Ph.D. students beyond the second year.

For information contact: William D. Blair, Director of Graduate Studies, Department of Mathematical Sciences, Northern Illinois University, DeKalb, Illinois 60115-2888.

Northern Illinois University is an Equal Opportunity/Affirmative Action institution.

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**APPLIED MATHEMATICS AT NORTHWESTERN UNIVERSITY**

Applied Mathematics is concerned with the solution of problems in the physical, engineering, life and social sciences which can be formulated as mathematical models. The curriculum encompasses courses in mathematical methods and in areas of application. Students are trained for careers in fields where mathematical tools play an essential role, including teaching, basic and industrial research.

The campus is located immediately north of Chicago adjacent to Lake Michigan. This location provides the combined advantages of a lovely suburban community and the many cultural opportunities of the metropolitan area.

Fellowships and assistantships ($6800–$9000, for nine months with full remission of tuition) are available with additional opportunity for summer support. Health service, hospitalization and surgical benefits are available.

For further information about M.S. and Ph.D. degrees in Applied Mathematics write to:

Professor R. A. Kliphardt, Department of Engineering Sciences and Applied Mathematics
Northwestern University, Evanston, Illinois 60201
<table>
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<tr>
<td>Ronald B. Kirk, Chair</td>
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<td>Fellowship (54:2)</td>
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<td>Research Assistantship (2:1)</td>
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<td>**20 hours total, only 3 contact hours.</td>
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**Southern Illinois University, Edwardsville 62026**

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<td>Robert N. Pendergrass, Chairman</td>
<td>Faculty 51; Published 33</td>
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<td>Fellowship (16:7-10) 4275</td>
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<td>Competitive Graduate Awards (25:25)</td>
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**University of Chicago, Chicago 60637**

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<td>J. Peter May, Chairman</td>
<td>Faculty 48; Published 48</td>
<td>Bachelor's by dept. 26</td>
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<td>Graduate Students: full-time 48; full-time first year 23; part-time 0</td>
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<td>Fellowship (28:28) 7500</td>
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<td>Research Assistantship (9:9) 4500-7500</td>
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<td>NSF (4:4) 1000-11000</td>
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<td>McCormick (11:11) 1000-11000</td>
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<td>Lectureship (32:32) 7500</td>
<td>9 20 Teaching</td>
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**STATISTICS**

| Stephen M. Stigler, Chairman | Faculty 13; Published 13 | |
| Graduate Students: full-time 14; full-time first year 4; part-time |
| Fellowship (14:-) 10200 | 9 10 |
| Ph. D. (83/86) S 5. Total: 5 |

**University of Illinois, Chicago 60680**

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<td>Faculty 83; Published 67</td>
<td>Bachelor's by dept. 175</td>
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<td>Graduate Students: full-time 121; full-time first year 109; part-time 22</td>
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<td>Teaching Assistantship (98:20**) 6200-9200***</td>
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<td>Research Assistantship (5-- ) 6500-6850</td>
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<tr>
<td>**Varies.</td>
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<tr>
<td>***Expected.</td>
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<td>†Ph.D. only.</td>
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**University of Illinois at Urbana-Champaign, Urbana 61801**

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<td>C. W. Gear, Head</td>
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<td>Bachelor's by dept. 311</td>
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<td>Graduate Students: full-time 425; full-time first year 130; part-time 0</td>
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<td>Fellowship (17:2) 7740-10000</td>
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<td>Teaching Assistantship (52:25) 7740-8820</td>
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<td>Research Assistantship (100:25) 7740-8820</td>
<td>9 20 Research</td>
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**MATHMATICS**

| Heini Halberstam, Head | Faculty 96; Published 65 | |
| Applications due: 2/15/87 | Bachelor's by inst. 6029 |
| Graduate Students: full-time 193; full-time first year 63; part-time 3 |
| Fellowship (4:4) 8100 | 9 224 3 Teaching |
| Teaching Fellowship (10:5) 8500-12500 | 9 224 5 Teaching |
| Teaching Assistantship (150:60) 7000-7500 | 9 224 5 Teaching |

1055
Western Illinois University, Macomb 61455

**COMPUTER SCIENCE**

David Ballew, Chair

- **Teaching Assistantship (4:2)**: 5400 dollars, paid to student for 9 months; anticipated 15 hours type. Graduate Students: full-time 61; full-time first year 23; part-time 11.
- **Research Assistantship (8:4)**: 3600 dollars, paid to student for 9 months; anticipated 15 Lab. work. Graduate Students: full-time 18; full-time first year 10; part-time 3.

MATHEMATICS

Larry Morley, Chair

- **Teaching Assistantship (7-10:5)**: 4125 dollars, paid to student for 115/term; anticipated 20 Grading, tutoring, research. Graduate Students: full-time 17; full-time first year 8; part-time 7.

Indiana State University, Terre Haute 47809

**MATHEMATICS AND COMPUTER SCIENCE**

Donald F. Reynolds, Chairman

- **Regular (7-)**: 2800-3600 dollars, paid to student for 9/8 sem. hr.; anticipated 20 Teaching, grading. Graduate Students: full-time 115; full-time first year 38; part-time 10.

Indiana University, Bloomington 47405

**COMPUTER SCIENCE**

Edward L. Robertson, Chairman

- **Fellowship (10:10)**: 4940 dollars, paid to student for 9/2 sem. hr.; anticipated 20 Teaching. Graduate Students: full-time 140; full-time first year 40; part-time 0.
- **Teaching Assistantship (10:2)**: 4000 dollars, paid to student for 9 months; anticipated 325. Graduate Students: full-time 115; full-time first year 38; part-time 1.
- **Research Assistantship (15:5)**: 8500 dollars, paid to student for 9 months; anticipated 325. Graduate Students: full-time 115; full-time first year 38; part-time 1.
- **System Assistantship (2:2)**: 8200 dollars, paid to student for 9 months; anticipated 325. Graduate Students: full-time 115; full-time first year 38; part-time 1.

**MATHMATICS**

John Ewing, Chairman

- **Fellowship (4:4)**: 8600-10600 dollars, paid to student for 9/2 sem. hr.; anticipated 15-18. Graduate Students: full-time 115; full-time first year 38; part-time 1.
- **Teaching Assistantship (140:40)**: 6600-7500 dollars, paid to student for 9/2 sem. hr.; anticipated 15-18 Teaching, grading, assisting. Graduate Students: full-time 115; full-time first year 38; part-time 1.
- **Research Assistantship (1:0)**: 6000-6700 dollars, paid to student for 9/2 sem. hr.; anticipated 15-20 Research. Graduate Students: full-time 115; full-time first year 38; part-time 1.
- **Summer Teaching Assistantship (50:10)**: 1200-1600 dollars, paid to student for 9/2 sem. hr.; anticipated 15-18 Teaching, grading, assisting. Graduate Students: full-time 115; full-time first year 38; part-time 1.

*Estimate.

Indiana University – Purdue University at Fort Wayne 46805

**MATHEMATICAL SCIENCES**

M. J. Mansfield, Chairman

- **Teaching Assistantship (2:1)**: 4940 dollars, paid to student for 9 months; anticipated 246 Teaching. Graduate Students: full-time 115; full-time first year 38; part-time 1.

*These figures are tentative. Stipends vary with teaching assignment. **Teaching and research assistantships are accompanied by a full fee remission which exempts the student from paying all fees except approximately $15 per credit hour.

Indiana
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<th>Stipend</th>
<th>Fees</th>
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<td>*Additional support through summer teaching is available.</td>
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<td>*$152 per semester; $76 per summer.</td>
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<td>MATHEMATICS (Ad on p. 1058)</td>
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<td>411.50/sem.</td>
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<td>Iowa</td>
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1057
TEACHING FELLOWSHIPS
PURDUE UNIVERSITY

The Department of Mathematics of Purdue University is offering a limited number of Teaching Fellowships to outstanding new graduate students. The stipend for two semesters will be at least $10,000 plus a reduction in fees to approximately $150 per semester. The Fellowships are renewable and Fellows will usually teach four hours per week. Please read our other advertisement for more details concerning our programs.

PURDUE UNIVERSITY
DEPARTMENT OF MATHEMATICS

GRADUATE PROGRAMS: The department invites applications for graduate study in programs leading to the M.S. and Ph.D. degrees in pure or applied mathematics, and the Master of Arts in Teaching degree. A special M.S. program in applied mathematics specifies seven core courses and suggests elective courses in numerical analysis, statistics, or mathematical physics, with the majority of graduates finding employment in industry, research laboratories, or government. The Departments of Mathematics, Statistics, and Computer Science offer a wide range of courses that can also be supplemented by courses in engineering and science.

GRADUATE FACULTY: The Department of Mathematics currently has 135 graduate students. The research faculty is distributed according to the following mathematical areas: Algebra & Algebraic Geometry, Applied Mathematics, Complex Analysis, Differential Equations, Differential Geometry & Lie Groups, Functional Analysis, Harmonic Analysis, Logic, Mathematics Education, Numerical Analysis, Probability & Statistics, and Topology.

HALF-TIME ASSISTANTS: Assistants usually teach four hours per week. The salary range for two semesters (August 24 to May 7) will be $6700 to $10,000 plus a reduction in fees to approximately $150 per semester. Most successful applicants who can be assigned to classroom teaching will be offered a minimum salary of $7500 for two semesters.

FELLOWSHIPS: Purdue University Fellowships ($6000 for twelve months in 1986-87) and Black and Other Minorities Fellowships ($5000 for twelve months in 1986-87 plus allowances for dependents and for research)

SUMMER ASSISTANTSHIPS: Positions are available for assistants whose performance in course work and assistantship duties is satisfactory. The stipend is one fifth of the student's academic year salary.

FEES: For holders of half-time assistantships and fellowships, fees for 1986–87 are reduced from $2563 ($863 for a state resident) to $152 per semester and to $76 for summer.

APPLICATIONS: For application forms and information write to:
GRADUATE OFFICE – Department of Mathematics – Mathematical Sciences Building – Purdue University – West Lafayette, IN 47907
GRADUATE STUDIES IN MATHEMATICS

The purpose of the graduate program in mathematics is to give students the opportunity to develop into educated and creative mathematicians. In most instances the doctoral program starts with two years of basic training, including introductory and advanced course work in the fundamentals of algebra, analysis, geometry, and topology. This is followed by thesis work done in close association with one or more members of the faculty. Limited enrollment and the presence of several active groups of research mathematicians provide thesis opportunities in many areas of algebra, algebraic geometry, complex analysis, differential geometry, logic, partial differential equations, and topology.

All new students receive a stipend of up to $8300 and have no teaching duties the first year. They then become teaching assistants with a stipend of over $7300 and begin the three stages of supervised teaching provided by the department. A teaching assistant usually starts by doing tutorial work in freshman and sophomore calculus courses (4 classroom hours per week); this is followed by a variety of duties in advanced undergraduate courses; the final, lecturing stage involves independent teaching in the classroom. All doctoral students in mathematics also receive a full tuition fellowship. Support is available for citizens and noncitizens.

All applicants are urged to take the General Test and the mathematics test of the Graduate Record Examination. Application for these tests should be made to Educational Testing Service in Princeton, New Jersey 08541, or at 1947 Center Street, Berkeley, California 94705. While there is no final application date, completed forms should be filed before February 15. All applicants are considered without regard to race, sex, or religious affiliation.

Professor William G. Dwyer, Chairman—Department of Mathematics University of Notre Dame—P.O. Box 398—Notre Dame, Indiana 46556
<table>
<thead>
<tr>
<th>TYPE OF ASSISTANCE</th>
<th>STIPEND</th>
<th>FEES</th>
<th>SERVICE REQUIRED</th>
<th>DEGREES AWARDED</th>
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<td>paid by student ($)</td>
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**MATHEMATICS**

| Fellowship (1:1) | 9000 | 9 | 1104-1646 | Bachelor's by inst. 3623 |
| Teaching Fellowship (1:--) | 6450 | | | Bachelor's by dept. 18 |
| Teaching Assistantship (88:85) | 7800-8800 | 9 | 1104-1646 | Ph. D. (83/86) ANT 2, AFA 3, |
| Research Assistantship (4:4) | 7500-8600 | 9 | 1104-1646 | GT 4, AM 1. Total: 10 |

**STATISTICS AND ACTUARIAL SCIENCES**

| Fellowship (1:0) | 6450 | 9 | | Bachelor's by inst. 3623 |
| Teaching Assistantship (23:6-8) | 8050-9000 | 9 | 1600 | Bachelor's by dept. 18 |
| Research Assistantship (5:0) | 8050-9000 | 9 | 1600 | Master's by dept. 16 |

**University of Northern Iowa, Cedar Falls 50614**

**MATHEMATICS AND COMPUTER SCIENCE**

| Graduate Assistantship (4:4) | 4250 | 9 | 15 | |

**Kansas**

**Kansas State University, Manhattan 66506**

**COMPUTER SCIENCE**

| Teaching Assistantship (32:10) | 700-900/mo. | 350/sem. | 18-20 | Grading, teaching |
| Louis Pigno, Head | Applications due: 3/1/87 | Faculty 26; Published 9 | Graduate Students: full-time 4; full-time first year 3; part-time 11 |

**MATHMATICS**

| Teaching Assistantship (30:10) | 7290 | 9 | 974* | Grading, teaching |
| Research Assistantship (2:1) | 7290 | 9 | 974* | Research |

**STATISTICS AND STATISTICAL LABORATORY**

| Teaching Assistantship (22:8) | 6884-6660 | 9 | 974* | Grading, teaching |
| Research Assistantship (5:2) | 7488-10560 | 12 | 1422* | Research |


**Pittsburg State University, Pittsburg 66762**

**MATHMATICS**

| Teaching Assistantship (4:4) | 4000 | 9 | 450 | |

**University of Kansas, Lawrence 66045**

**COMPUTER SCIENCE**

| Fellowship (1:1) | 5000-8000 | 9 | 20 | Teaching |
| Teaching Fellowship (1:--) | 5000-8000 | 9 | 20 | Teaching |
| Teaching Assistantship (32:16) | 8800-9350 | 11 | 225/sem. | Teaching |
| Research Assistantship (10:3) | 9350 | 11 | 675/sem. | Research |
| Class Assistantship (20:10) | 6300 | 9 | 675/sem. | Grading |

Graduate Students: full-time 95; full-time first year 40; part-time 25 |

Bachelor's by inst. 739|

Bachelor's by dept. 19|

Master's by dept. 0|

Ph. D. (83/86) CS 4. Total: 4
TYPE OF ASSISTANCE (Total no.: no. anticipated) STIPEND FEES SERVICE REQUIRED DEGREES AWARDED

MATHEMATICS (Ad on p. 1062)
Charles J. Himmelberg, Chairman

Teaching Assistantship (50:15) 7325–8000 9 27/cr.hr. 20 Teaching
Other**

*For first consideration.
**NSF grant support available.

Wichita State University, Wichita 67208

MATHEMATICS AND STATISTICS
Dharam Vir Chopra, Chairman

Applications due: 3/15/87*
Faculty 38; Published 38
Graduate Students: full-time 47; full-time first year 22; part-time 20
Ph. D. (83/86) AFA 2, GT 1.

Teaching Fellowship (6:3)* 8000*
Teaching Assistantship (18:12) 6500

*Likely to increase.

Kentucky

Eastern Kentucky University, Richmond 40475

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE
Charles H. Franke, Chair

Applications due: 4/15/87*
Faculty 39; Published 22
Graduate Students: full-time 8; full-time first year 5; part-time 7
Ph. D. (83/86) AFA 2, GT 1.

Teaching Assistantship (10:6) 3100–6000 9 3–6* Teaching

*Late applications considered.

KANSAS STATE UNIVERSITY

Graduate Study in Mathematics

We offer a varied program of graduate study leading to the M.S. and Ph.D. degrees in mathematics.

Particular strengths of the department are harmonic analysis, applied mathematics, algebra, and finite geometry. We also have faculty actively pursuing such other research areas as categorical topology, global analysis, group theory, lattice theory, and number theory. We offer teaching assistantships that pay at least $810 per month and also have a substantial endowment for scholarships, fellowships, and colloquia.

All graduate students are afforded close contact with the senior faculty. For additional information and application forms write to:

Director of Graduate Studies
Department of Mathematics
Cardwell Hall
Kansas State University
Manhattan, KS 66506

Academic year 1985–1986
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<td>Donald Bennett, Chairman</td>
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| University of Kentucky, Lexington 40506 | | | | |
| **COMPUTER SCIENCE** | | | | |
| Yuri Breitbart, Chairman | Applications due: 2/1/87 | | | |
| Graduate Students: full-time 60; full-time first year 14; part-time 5 | Bachelor's by inst. | 2672 | |
| Fellowship (2:2)* | 5600-8000 | 9 | 50 | |
| Teaching Assistantship (28:8) | 7000-7200 | 9 | 50 | 20 | Teaching, grading |
| Research Assistantship (2:0) | 7000-7200 | 9 | 1442 | Research |
| *Fellowships are competitive university-wide. |

| **MATHEMATICS** | | | | |
| Ronald Gariepy, Chairman | Applications due: 2/1/87 | | | |
| Graduate Students: full-time 49; full-time first year 11; part-time 4 | Bachelor's by inst. | 2672 | |
| Teaching Fellowship (2:2) | 9800 | 9 | 50 | 20 | Teaching |
| Teaching Assistantship (42:8) | 7000 | 9 | 50 | 20 | Teaching |
| Research Assistantship (2:0) | 7000-7400 | 9 | 1452 | Research |
| Presidential Fellowship (1:1) | 11500 | 9 | 50 | 10 | Teaching |

| **STATISTICS** | | | | |
| David M. Allen, Chairman | Applications due: 2/1/87 | | | |
| Graduate Students: full-time 28; full-time first year 9; part-time 1 | Bachelor's by inst. | 2672 | |
| Fellowship (1:1) | 5600 | 9 | 467 | |
| Teaching Assistantship (16:4) | 7100-8000 | 10 | 20 | Teaching |
| Research Assistantship (4:2) | 7100-8000 | 10 | 1402 | 20 | Research, consulting |

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### UNIVERSITY OF KANSAS

**Graduate Study in Mathematics**

#### DEGREE PROGRAMS

The Department of Mathematics offers graduate programs leading to the M.A. and Ph.D. degrees. Programs for these degrees can be designed to emphasize either pure or applied mathematics or statistics. A broad range of programs is possible, as the faculty is actively engaged in research in a variety of areas including algebra, analysis, functional analysis, operator theory, set theory, number theory, topology, combinatorics, differential equations, control theory, theoretical physics, numerical analysis, probability and statistics.

#### FINANCIAL AID

Teaching assistantships will have stipends between $7300 and $8000 per academic year. Outstanding students may either supplement or replace teaching assistant stipends through scholarships or faculty NSF grants. Summer support is also available from teaching assistantships, scholarships and grants.

#### FEES

Approximately $27.00 per semester credit hour. Outstanding applicants may have their fees paid by a fee scholarship.

#### APPLY TO:

Director of Graduate Studies
Department of Mathematics
University of Kansas
Lawrence, KS 66045-2142

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1062
University of Louisville, Louisville 40292

MATHEMATICS
Michael S. Jacobson, Chairperson

Applications due: 6/30/87
Faculty 17; Published 13

Graduate Students: full-time 12; full-time first year 7; part-time 25

Teaching Assistantship (6:4) 6400-7500 9 6-10 Teaching
Other (6:2) 8500-9200 9 1200 9 Teaching

Western Kentucky University, Bowling Green 42101

MATHEMATICS
Robert C. Bueker, Head

Applications due: 3/20/87
Faculty 29; Published 6

Graduate Students: full-time 3; full-time first year 0; part-time 2

Teaching Fellowship (4:3) 4000-5000 9 1130 12 Teaching, tutorials

Louisiana State University, Baton Rouge 70803

MATHEMATICS (Ad on p. 1064)
J. R. Dorroh, Chairman

Applications due: 6/15/87
Faculty 45; Published 42

Graduate Students: full-time 48; full-time first year 16; part-time 2

Fellowship (5:2) 10000 12 200 Ph. D. (83/86) ANT 2, GT 2, L 1, Other 1. Total: 6
Teaching Fellowship (1:2) 8000 9 200 6
Teaching Assistantship (60:20) 6800-7000 9 200 6


PRESIDENTIAL FELLOWSHIPS IN MATHEMATICS
University of Kentucky
$11,500/9 months plus paid tuition

These fellowships are offered to applicants of exceptional promise and include a half-time teaching assignment of one course (3-4 contact hours per week) per semester. Applications are invited for the academic year 1987-88.

The Mathematics Department offers programs of graduate study in the traditional fields of pure and applied mathematics leading to the Ph.D. degree or the Master's degree. In addition, a Master's degree in Operations Research is offered jointly by the departments of Mathematics, Statistics, and Computer Science.

For more information and applications materials, call (606) 257-4653 or write:

Director of Graduate Studies
Department of Mathematics
University of Kentucky
Lexington, KY 40506-0027
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<td>MATHEMATICS AND STATISTICS</td>
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<td>Nicholls State University, Thibodaux 70310</td>
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**MATHEMATICS GRADUATE PROGRAM AT LSU**

The LSU Department of Mathematics offers a traditional plan of doctoral studies providing a background in modern mathematics and requiring a dissertation which makes an original and interesting contribution to mathematics research. Such a program may involve a minor outside mathematics.

Flexible Master's programs (Master of Science, Master of Arts, Master of Natural Science) preparing students for entry into a doctoral program or for a variety of employment opportunities.

**FINANCIAL AID**

Graduate teaching assistantships are available with a stipend of $4,800 per year for the 1987-88 academic year. Duties involve teaching six hours of freshman-level mathematics per week. Applications for assistantships should be received by March 15.

Alumni Federation Graduate Fellowships

Applicants with excellent credentials are placed in a University-wide competition for 30 LSU Alumni Federation Graduate Fellowships. The fellowships pay $10,000 per year (tax-free) and carry no teaching duties. Graduate assistants and fellows are exempt from all tuition and University fees except for a normal activity fee each semester. The application deadline including the receipt of three letters of recommendation for fellowship consideration is February 15, 1987.

**GRADUATE FACULTY AND RESEARCH AREAS**

Particularly strong research areas at LSU include:

- **ALGEBRAIC AND ANALYTIC GEOMETRY**: W. Adams (Oregon), C. N. Delzell (Stanford), J. W. Duffin (Carnegie); R. F. Lak (U. of T.), A. Mobile (U. of T.), K. Miller (Princeton)
- **ALGEBRAIC AND DIFFERENTIAL TOPOLOGY**: P. E. Conner (Princeton), P. Gilmer (Berkeley), R. K. Steinmetz (Princeton), G. H. Weiss (Princeton), R. P. Lichtenstein (Cambridge)
- **COMBINATIONS AND GRAPH THEORY**: D. Bollobas (Budapest, Cambridge), J. G. Oxley (Oxford), R. B. Reid (Illinois), Y. Cheng (Yale)
- **COMPUTATIONAL ALGEBRA AND ALGEBRAIC NUMBER THEORY**: T. A. Barrs (Ohio State), C. W. Undergraduate (Maryland), J. Hurrelbrink (Göttingen), J. Morales (Texas), R. Schilling (Irvine), J. Fox (Berkeley)
- **FUNCTIONAL ANALYSIS**: M. Alsen (Tasukent), R. Bollobas (Budapest, Cambridge), R. Collins (Tulane), J. R. Dorroh (Texas), J. R. Hetherford (Florida State), L. Weis (Berkeley)
- **HARMONIC ANALYSIS**: R. C. Fabec (Colorado), O. C. S.McCabe (Yale), L. F. Richardson (Yale), J. Cygan (Wrocław), M. Davidson (Irvine), J. Fox (Berkeley)
- **INFINITE DIMENSIONAL TOPOLOGY**: D. W. Curtis (Iowa State)
- **DIFFERENTIAL EQUATIONS**: J. R. Duffin (Texas), G. Ferrari (Philadelphia), A. Keiser (Tulane), R. Schilling (Arizona)
- **PROBABILITY**: H. H. Kuo (Cornell), A. Russek (Ohio)
- **TOPOLOGICAL ALGEBRA**: J. A. M. J. Attebery (Tulane), J. D. Lawson (Tulane)

For more information and an application form write to: Professor Robert P. Perle, Director of Graduate Studies, Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803-4918

1064
University of Southwestern Louisiana, Lafayette 70506

Applications due: 2/15/87
Faculty 41; Published 22
Graduate Students: full-time 26; full-time first year 5; part-time 2

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MATHMATICS
Victor Schneider, Chairman

Applications: 2/15/87
Faculty: 41; Published: 22
Graduate Students: Full-time 26; Full-time first year 5; part-time 2

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<th>TYPE OF ASSISTANCE</th>
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<td>6</td>
<td>Teaching</td>
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$12,000 Fellowships

The University of Southwestern Louisiana has a number of duty-free fellowships for students seeking a Ph.D. in Mathematics. The stipend is $12,000 per fiscal year and the fellowship can be renewed for up to three years. High GRE scores and high GPA are required. Qualified black students are encouraged to apply. For further information contact:

Bradd Clark
Department of Mathematics
University of Southwestern Louisiana
Lafayette, LA 70504

1065
Maine

University of Maine at Orono 04469

MATHEMATICS
Grattan Murphy, Chairman
Teaching Assistantship (7:4) 5000 9 15-17 Grading, math. lab.

Maryland

Johns Hopkins University, Baltimore 21218

MATHEMATICAL SCIENCES
Robert J. Serfling, Chairman
Applications due: 2/15/87*
Graduate Students: full-time 12; full-time first year 9; part-time 2
Fellowship (1:-) 13400 12 5
Teaching Fellowship (2:2) 10000 9 6
Teaching Assistantship (12:4) 8600 9 13
Research Assistantship (3:2) 11000-13500 12 13
*For first round consideration.

University of Maryland, College Park 20742

COMPUTER SCIENCE
Victor R. Basili, Chairman
Applications due: *
Graduate Students: full-time 94; full-time first year 50; part-time 55
Fellowship (6:-) 100-1000 9 **
Teaching Assistantship (55:-) 7350-8300 9 10-20 Teaching
Research Assistantship (90:-) 8820-9960 ** Research

Massachusetts

Babson College, Babson Park 02157

MATHEMATICS AND SCIENCE
John C. Saber, Chairman
Teaching Assistantship (12:12) 10
Graduate Study in Mathematics at
UNIVERSITY OF MARYLAND, COLLEGE PARK

Ph.D. and M.A. degrees are available in each of the three Graduate Programs:

○ MATH  The Mathematics Program
  The Department is strongly represented in Analysis, Topology, Geometry, Number Theory, Logic, Differential Equations, and Numerical Analysis, allowing the student to develop expertise in a variety of areas.

○ MAPL  The Interdisciplinary Applied Mathematics Program
  The Program is sponsored by 12 departments and offers a flexible course of study which combines mathematics with an area of application (such as Physics, Operations Research, Fluid Dynamics, Computer Software, Continuum Mechanics, Systems and Control Theory, etc.)

○ STAT  The Mathematical Statistics Program
  This is a flexible program enabling students to emphasize either mathematical aspects (such as Asymptotic Theory, Stochastic Processes) or applications of statistics (such as Biostatistics, Time Series, Analysis of Variance).

MATH—STAT FACULTY: There are about 100 faculty members, including a number of Guggenheim and Sloan fellows. Many of the faculty members are internationally recognized in their field.

MAPL FACULTY: There are over 100 participating faculty members, drawn from the Departments of Mathematics; Aerospace, Chemical, Civil, Electrical, and Mechanical Engineering; Computer Science; Meteorology; Physics; Economics; Business and Management; as well as the Mathematical Statistics Program, the Public Management Program and the Institute for Physical Science and Technology. Again, this faculty is comprised of many highly distinguished members.

RESEARCH CLIMATE: There is an active seminar program which features a number of distinguished visitors from throughout the world, as well as internal speakers. In addition, each year is designated a “Special Year” in a particular area of mathematics.

FINANCIAL AID: Teaching assistantships are readily available to qualified students. Fellowships to outstanding applicants are available.

FOR FURTHER INFORMATION, PLEASE WRITE TO:
Office of Graduate Studies
Department of Mathematics
UNIVERSITY OF MARYLAND
College Park, MD 20742
Boston College, Chestnut Hill 02167

MATHEMATICS
Robert J. Bond, Chairman

Applications due: 3/15/87
Faculty 22; Published 16
Graduate Students: full-time 16; full-time first year 7; part-time 1

Teaching Fellowship (12:8) 6800-7200 9 6 Teaching
Scholarship (~4) *

*Partial tuition remission.

Boston University, Boston 02215

COMPUTER SCIENCE
Steve Homer, Chair

Faculty 15; Published 13
Graduate Students: full-time 80; full-time first year 24; part-time -

Teaching Fellowship (14:4) 6000-7500 9 130 18 Grading, teaching
Research Assistantship (5:2) 6000-7500 9 130 18 Research

*Stipend fee service required.

Brandeis University, Waltham 02254

MATHEMATICS
Gerald Schwarz, Chairman

Applications due: 2/15/87
Faculty 21; Published 20
Graduate Students: full-time 39; full-time first year 11; part-time 0

Teaching Fellowship (40:14) 6500-7000 9 8-10 Teaching, grading
Research Assistantship (5:2) 6000-7500 9 130 18 Research

Harvard University, School of Public Health, Boston 02115

BIOSTATISTICS
Marvin Zelen, Chairman

Applications due: 2/1/87
Faculty 36; Published 36
Graduate Students: full-time 43; full-time first year 17; part-time 1

Fellowship (20:2) 6000-11000 12 9950 8 Teaching, research
Research Assistantship (4:—) 6000-11000 12 20 Research

Harvard University, Cambridge 02138

MATHEMATICS
Barry Mazur, Chairman

Faculty 29; Published 24
Graduate Students: full-time 53; full-time first year 10; part-time 0

Fellowship (25:10) 1370-20850 10 8 Variates
Teaching Fellowship (21:0) 2955-6690 5-10 10-12 Teaching
Research Assistantship (22:-) 3000-9000 5-10-12 10-12 Teaching

*$11850 for first and second years, $1250 for third and fourth years, $1370 for fifth year.

Boston College Graduate Programs in Mathematics

The Department of Mathematics at Boston College offers a flexible M.A. program. Courses are offered in pure and applied math and in computer science. In addition, the Department offers a program leading to the Master of Science in Teaching (M.S.T.) degree in cooperation with the University's Department of Education. Financial aid, including full-time teaching fellowships, is available. For information and applications, contact:

W. J. Keane
Chairman, Graduate Committee
Department of Mathematics
Boston College
Chestnut Hill, Mass. 02167

1068
**HARVARD UNIVERSITY**

**SCHOOL OF PUBLIC HEALTH**

**DEPARTMENT OF BIOSTATISTICS**

Harvard’s Department of Biostatistics is one of the country’s leading centers of biostatistical research and education. We offer graduate programs leading to Masters and Doctoral degrees in Biostatistics, Biomedical Computing, and Health Decision Sciences. Research interests of the faculty include survival and sequential analysis, longitudinal studies, statistical computing, and cost-effectiveness of medical therapies. Primary areas of collaborative research include the etiology, diagnosis, and treatment of cancer, problems of environmental health, and emerging issues such as the AIDS epidemic and health promotion. The Department consists of more than 25 full-time faculty and about 40 full-time students, creating a favorable environment for faculty–student interaction. Students are encouraged to participate actively in the Department’s research activities.

Financial aid opportunities are excellent, and include traineeships from the National Institutes of Health, tuition scholarships from the School, and research assistantships. Applications should be submitted no later than February 1, 1986, and early applications are considered upon receipt. For further information, contact

**Admissions Committee**

Harvard School of Public Health
Department of Biostatistics
677 Huntington Avenue
Boston, MA 02115
<table>
<thead>
<tr>
<th>TYPE OF ASSISTANCE</th>
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Tufts University, Medford 02155

**MATHEMATICS**  
Marjorie Hahn, Acting Chairman  
Applications due: 3/15/87  
Graduate Students: full-time 9; full-time first year 2; part-time 1  
Teaching Assistantship (9:3)  
7000-7500  9  *  6-8  Teaching and/or grading  
Ph. D. (83/86) P I. Total: 1

*About $10000 tuition remission to cover this also available.

University of Lowell, Lowell 01854

**MATHEMATICS**  
Alan W. Doerr, Chairman  
Applications due: 5/1/87  
Graduate Students: full-time 86; full-time first year 41; part-time 198  
Teaching Assistantship (11:11)  
6000  9  20  Grading, teaching

University of Massachusetts, Amherst 01003

**MATHEMATICS AND STATISTICS**  
Larry N. Mann, Head  
Applications due: 2/1/87  
Graduate Students: full-time 62; full-time first year 16; part-time 2  
Fellowship (3:2)  
3000-6000  9  568  10  Grading, teaching  
Teaching Assistantship (45:15)  
6800-7400  9  568  10  Grading, teaching  
Research Assistantship (2-3:-)  
7400-10200  12  568  10

Worcester Polytechnic Institute, Worcester 01609

**MATHEMATICAL SCIENCES**  
Gordon Branche, Chairman  
Applications due: 3/1/87  
Graduate Students: full-time 10; full-time first year 3; part-time 4  
Fellowship (6:6)  
12000  12  207  6  Grading, teaching  
Teaching Assistantship (6:6)  
7425  9  207  6

*Ten fellowships campus-wide; open competition among U.S. citizens only.

Michigan

Central Michigan University, Mt. Pleasant 48859

**MATHEMATICS**  
Richard J. Fleming, Chairman  
Applications due: 3/1/87  
Graduate Students: full-time 10; full-time first year 3; part-time 4  
Fellowship (-12)  
4200  12  6

Teaching Assistantship (10:6)  
5200-5500  9  6*

University of Massachusetts at Amherst

**GRADUATE STUDIES.** M.A. and Ph.D. programs in pure and applied mathematics and statistics. Active departmental and interdisciplinary research environment.

**TEACHING ASSISTANTSHIPS.** 3-4 contact hours/week. Tuition waiver. Possible summer teaching. Fellowships for qualified applicants.

**ATTRACTIVE LOCATION.** Five college area in the beautiful Pioneer Valley. Easy access to Boston and New England ski and recreation areas. University housing available. Free local bus system. For information write

Director of Graduate Admissions  
Department of Mathematics and Statistics  
University of Massachusetts  
Amherst, Massachusetts 01003
Michigan State University, East Lansing 48824

MATHEMATICS
Kyung Whan Kwun, Chairman
Fellowship (4:3)
Fees: 9000
Stipend: 9000
Graduate Students: full-time 116; full-time first year 40; part-time 0
Fees: 1885
Stipend: 1885
Service: 4-8 Grading, teaching
*Summer before first year.

STATISTICS AND PROBABILITY
Dennis Gilliland, Chairman
Fellowship (2:2)
Fees: 9000-12000
Stipend: 9000-12000
Graduate Students: full-time 85; full-time first year 22; part-time 4
Fees: 1700
Stipend: 1700
Service: 7-14 Teaching, grading
*1/4 time Teaching Assistantship.

Michigan Technological University, Houghton 49931

MATHEMATICAL AND COMPUTER SCIENCES
Martyn R. Smith, Head
Teaching Assistantship (18:10)
Fees: 6600
Stipend: 6600
Graduate Students: full-time 26; full-time first year 11; part-time 1
Fees: 15
Stipend: 15
Service: Teaching

Oakland University, Rochester 48063

MATHEMATICAL SCIENCES
Donald E. G. Malm, Chairperson
Teaching Assistantship (3:1)
Fees: 6000-6500
Stipend: 6000-6500
Graduate Students: full-time 9; full-time first year 1; part-time 14
Fees: 20
Stipend: 20
Service: Teaching

University of Michigan, Ann Arbor 48109

BIOSTATISTICS
Morton B. Brown, Chairman
Fellowship (3:3)
Fees: Full tuition
Stipend: Full tuition
Graduate Students: full-time 43; full-time first year 19; part-time 4
Fees: 15
Stipend: 15
Service: Teaching

MASTERS IN APPLIED MATHEMATICS
WORCESTER POLYTECHNIC INSTITUTE

Industrial demand for applied mathematicians with graduate degrees is strong and growing.

Practical experience in modeling is an important component of WPI's applied mathematics program.

Financial aid in the form of teaching assistantships is available to qualified applicants. These opportunities include tuition remission and a monthly stipend.
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<td>D. J. Lewis, Chairman</td>
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<td>Edward D. Rothman, Chairman</td>
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**Wayne State University, Detroit 48202**

**MATHMATICS**

Clarence Wilkerson, Jr., Chairman

Applications due: 3/1/87

Graduate Students: full-time 32; full-time first year 8; part-time 11

Fellowship (4:2) | 6000-7500** | 9 | *** | 6^ Teaching |

Teaching Assistantship (22:7) | 6300-7500** | 9 | *** |

Research Assistantship (2:2) | 7000-8000** | 12 | *** |

*Late applications will be accepted.
**Plus hospitalization and, in some cases, housing.
***Application fee.

GRADUATE STUDY IN MATHEMATICS

The Mathematics Department offers graduate programs leading to the M.A. and Ph.D. degrees. Master's degrees are offered in mathematics, applied mathematics, and statistics. Doctoral students may specialize in a variety of areas, including combinatorics, algebra, classical and functional analysis, differential equations, geometry and topology, probability and statistics, and applied mathematics. The department presently includes forty-three full-time faculty, and a favorable student/faculty ratio allows for individual attention.

Financial support includes teaching assistantships with stipends in the range $6,300-$7,500 together with a waiver of tuition up to 10 credit hours and health insurance. Fellowships and housing allowances are also available to well-qualified students. The suggested deadline for completion of applications is Feb. 25; applicants meeting this deadline will be notified in time to respond by April 15. Late applications, however, will be accepted as long as openings remain.

Direct inquiries to: Clarence W. Wilkerson, Chairman
Department of Mathematics
Wayne State University
Detroit, Michigan 48202

Wayne State University is an Equal Opportunity/Affirmative Action Employer.
Western Michigan University, Kalamazoo 49008

COMPUTER SCIENCE
J. Donald Nelson, Chairperson

Fellowship (Varies:Varies) 5000 9
Teaching Assistantship (18:10) 5500 9 4* Grading, teaching

MATHEMATICS AND STATISTICS
Joseph T. Buckley, Chair

Fellowship (5:--) 5000-7000 8 *
Teaching Assistantship (26:--) 6250-8000 8 * 6-8*
Internship (3:--) 2500-4500 4 * 40
Spring or Summer Teaching Assistantship or Fellowship (25:--) 1000-1250 2 * 6

*Resident: $65.50 per credit hour; nonresident: $158.25 per credit hour.

Bemidji State University, Bemidji 56601

MATHEMATICS AND COMPUTER SCIENCE
Elaine Bohanon, Chairman

Teaching Assistantship (2:2) 4000 9 * 4*

*Depends on credits taken and resident or nonresident.

Minnesota


card

The Department of Mathematics and Statistics at Western Michigan University consists of 35 full-time faculty members with specialists in most areas of mathematics and statistics.

DEGREE PROGRAMS
WMU offers master's degrees in Mathematics, Biostatistics, Statistics, (Applied or Theoretical options available), Applied Mathematics and Mathematics Education. In addition to the Ph.D. in Mathematics, the department also offers a Ph.D. in Mathematics with a concentration in Statistics, a concentration in Graph Theory and Computer Science, and a concentration in college mathematics teaching.

SPECIAL OPPORTUNITIES
The Department is internationally acclaimed in the field of graph theory. In 1984 the Department hosted the Fifth International Research Conference on the Theory and Applications of Graphs with special emphasis on algorithms and computer science applications.

A unique Master's in Biostatistics, developed in cooperation with the pharmaceutical industry, trains graduates to meet needs of prospective employers. Paid internships are included in programs in Biostatistics and Applied Statistics.

FINANCIAL ASSISTANCE
In 1987 Graduate Teaching Assistantships with a stipend of $6,250 are available for the academic year. A limited number of Senior Assistantships with a stipend of $8,000 and Doctoral Fellowships of $6,000 are also available. Additional $1,250 assistantships are available for Spring or Summer session. Applications for Fellowships and Assistantships are due by February 15. Late applications for assistantships will be accepted if openings remain. For additional information contact:
Dr. Joseph Buckley
Department of Mathematics and Statistics
Western Michigan University
Kalamazoo, MI 49008-3899

WMU is an Equal Opportunity/Affirmative Action institution.
Mankato State University, Mankato 56001

**MATHEMATICS, ASTRONOMY AND STATISTICS**  
Applications due: 6/1/87  
Francis T. Hannick, Chairperson  
Faculty 22; Published 7  
Graduate Students: full-time 75; full-time first year 35; part-time 10  
Teaching Assistantship (20:15)  
2500-5000  
9  
10-15 Teaching, grading

Moorhead State University, Moorhead 56560

**COMPUTER SCIENCE AND INFORMATION SYSTEMS**  
Applications due: 4/1/87  
Curtis Bring, Chairman  
Faculty 11; Published 4  
Graduate Students: full-time 30; full-time first year 10; part-time 10  
Teaching Assistantship (10:6)  
2000-4000  
9  
10-20

St. Cloud State University, St. Cloud 56301

**MATHEMATICS AND STATISTICS**  
Applications due: 3/1/87  
Gail A. Earles, Chairperson  
Faculty 29; Published 5  
Graduate Students: full-time 0; full-time first year 0; part-time 18  
Teaching Assistantship (3:3)  
4000  
9  
550  
10 Teaching

University of Minnesota, Minneapolis 55455

**BIOMETRY**  
Applications due: 4/15/87  
M. Kjelsberg, Head  
Faculty 9; Published 7  
Graduate Students: full-time 20; full-time first year 11; part-time 8

Fellowship (9-)  
1000-3000  
9  
Ph. D. (83/86) S 6, Other 2.  
Total: 8

Teaching Assistantship (9:2)  
10-20 Grading

Research Assistantship (4:1)  
10-20 Research

**MATHEMATICS**  
Applications due: *  
Richard McGehee, Head  
Faculty 80; Published 71  
Graduate Students: full-time 180; full-time first year 62; part-time 10

Teaching Fellowship (4-6:4-6)  
11800**  
9  
549  
2 Teaching

Teaching Assistantship (138:30)  
8600-9300**  
9  
549  
4-5* Teaching

Research Assistantship (4-6-*** )  
8600-9300  
9  
549  
2-3* Research, teaching

Summer Teaching Assistantship (34:9-10)  
2400-2500  
1.5  
88  
10* Teaching

Summer Fellowship (50-60:15-20)  
2000-2200  
2  
88  
Research

*Fellowships: 2/1/87; assistantships: 3/1/87.  
**1986 figures.  
***Not available to first year students.

**STATISTICS**  
Applications due: 3/15/87  
Seymour Geisser, Director  
Faculty 18; Published 18  
Graduate Students: full-time 56; full-time first year 15; part-time 13

Fellowship (3-- )  
5000  
*  

Teaching Assistantship (27--)**  
7850  
9  
*  
Research Assistantship (15--)**  
7850  
9  
*  
Alumni Scholarship (1--)  
3000  
9  
*  
*7-15 credits: resident $799, nonresident $1596.  
**All student appointments of at least 25% will receive Tuition Fellowships equal to twice the percent of their appointment.

Mississippi

Mississippi State University, Mississippi State 39762

**MATHEMATICS AND STATISTICS**  
Applications due: 4/15/87*  
J. L. Solomon, Head  
Faculty 38; Published 19  
Graduate Students: full-time 18; full-time first year 10; part-time 1

Fellowship (1:1)  
5400-6600  
9  
1400  
20 Grading, teaching

Teaching Assistantship (15:10)  
5400-6600  
9  
1400  
20 Grading, teaching  
*To be sure of full consideration.
| UNIVERSITY OF MINNESOTA SCHOOL OF MATHEMATICS |

The School of Mathematics offers programs leading to the M.S. and Ph.D. degrees. Our 80 full-time faculty members have wide-ranging interests covering most areas of mathematics. The school offers many advantages, including a faculty-student ratio of 1:2 and an excellent library. Teaching assistantships and fellowships are available.

The Institute for Mathematics and Its Applications, located in the same building as the School of Mathematics, invites graduate students to participate in its activities. Extensive opportunities also exist for interaction with various engineering, science, and social science departments.

A good transit system, beautiful parks and lakes, and friendly neighborhoods make the Twin Cities a great place to live.

For more information write to:

Professor Naresh Jain  
School of Mathematics  
127 Vincent Hall  
206 Church St. S.E.  
University of Minnesota  
Minneapolis, MN 55455

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**Table: University of Mississippi, University 38677**

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<td><strong>University of Southern Mississippi, Hattiesburg 39406</strong></td>
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<td><strong>Mathematics</strong></td>
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<td>Applications due:</td>
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<tr>
<td>Graduate Students:</td>
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<td>Part-Time Instructor (*)</td>
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<td>*Several: Several.</td>
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<td><strong>In-state: $1800; out-of-state: $2782.</strong></td>
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**University of Minnesota, School of Mathematics**

1075
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<td>Mathematics and Computer Science</td>
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<td>Lanny Morley, Chairman</td>
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| Saint Louis University, St. Louis 63103 |         |      |                  |                 |
| Mathematics and Computer Science | Faculty 13; Published 8 | Bachelor’s by inst. | 950 |
| John Cantwell, Chairman | Graduate Students: full-time 8; full-time first year 2; part-time 5 | Bachelor’s by dept. | 33 |
| | | Master’s by dept. | 3 |
| Teaching Assistantship (11:6) | 4400-4600  | 9    | 6' | *Six hours tuition remission. |

| Southeast Missouri State University, Cape Girardeau 63701 |         |      |                  |                 |
| Mathematics | Applications due: 3/1/87 | Bachelor’s by inst. | 1464 |
| Harold W. Hager, Chairman | Faculty 22; Published 4 | Bachelor’s by dept. | 34 |
| | Graduate Students: full-time 4; full-time first year 2; part-time 9 | Master’s by dept. | 3 |
| Teaching Fellowship (5:3) | 4000  | 9    | Waived | 6' |

| Southwest Missouri State University, Springfield 65804 |         |      |                  |                 |
| Mathematics | Faculty 24; Published 3 | Bachelor’s by inst. | 1709 |
| Simon J. Bernau, Chairman | Graduate Students: full-time 3; full-time first year 0; part-time 0 | Bachelor’s by dept. | 21 |
| | | Master’s by dept. | 0 |
| Teaching Fellowship (5:4) | 4750  | 9    | 20 | Assisting, teaching |

---

**NORTHEAST MISSOURI STATE UNIVERSITY**

**THE LIBERAL ARTS AND SCIENCES INSTITUTION OF MISSOURI**

**Division of Mathematics and Computer Science**

**Graduate Studies in Pure and Applied Mathematics**

**Degree Programs:** The Division offers a program of study leading to the Master of Arts degree with emphasis in either pure or applied mathematics. The program has, as its primary purpose and goal, the preparation of graduates who will be able to enter and excel either in strong mathematics Ph.D. programs or in professional careers demanding the abilities and qualities developed in a strong masters program. Organized around an extensive central core of traditional and contemporary areas of mathematics and a substantial emphasis area in pure or applied mathematics, the program is designed to insure breadth, depth, and a significant research experience.

**Financial Aid:** There are available several forms of financial aid: teaching instructorships, fellowships, graduate assistantships, and graduate student employment. The instructorships, fellowships, and assistantships also cover the recipient’s fees up to 12 hours.

**Location:** The university is located in a peaceful, rural area of northeast Missouri, approximately 150 miles from Kansas City and 200 miles from St. Louis. The Thousand Hills State Park is only about 3 miles away. Kirksville is a town of 18,000, home of the first college of osteopathic medicine, two modern, well-equipped hospitals, and several light industries.

**Application:** For additional information and application forms, write to:
- Graduate Committee
- Division of Mathematics and Computer Science
- Northeast Missouri State University
- Kirksville, MO 63501

To assure consideration for financial aid, applicants should submit all forms by April 1, 1987. International students should inquire early.
<table>
<thead>
<tr>
<th>UNIVERSITY OF MISSOURI-COLUMBIA 65211</th>
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<tr>
<td>Keith Schrader, Chair</td>
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<td>Scholarship (10°-10)</td>
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<td>John E. Hewett, Chairperson</td>
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**UNIVERSITY OF MISSOURI-Rolla 65401**

**ENGINEERING MECHANICS**

Peter G. Hansen, Chairman

| Teaching Assistantship (12-4) | 8700* |
| Research Assistantship (4-2)  | 8700* |
| *Half-time.                   |       |

**MATHMATICS AND STATISTICS**

Louis Grimm, Chairman

| Teaching Assistantship (32-12) | 9000  |
| Research Assistantship (1-0-1) | 4500  |
| Chancellor's Fellowship (0-6-.) | 12    |
| *Late applications considered if positions are still available. |

**WASHINGTON UNIVERSITY, ST. LOUIS 63130**

**COMPUTER SCIENCE**

Jerome R. Cox, Chairman

| Teaching Fellowship (4-5) | 6300  |
| Teaching Assistantship (15-5) | 10500 |
| Special D.Sc. Research Assistantship (3-5) | 1200  |
| *$440 per hour beyond 18. |

**MS in Applied Mathematics MA and PhD in Mathematics**

The most comprehensive campus of the University is located midway between St. Louis and Kansas City. Graduate Teaching Assistantships available to those admitted to the graduate program include waiver of tuition, payment of all fees, and a current stipend of $8,500. Summer session support is additional. Women and minorities are encouraged to apply.

For information write: Dr. C.W. Morris, Associate Chair

201 Math Science Building

Columbia, MO 65211
**Type of Assistance**

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<td>Graduate Professional Opportunity Fellowships</td>
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**Applications due: 2/87**

**Graduate Students:** full-time 34; full-time first year 13; part-time 7

- **Ph.D. (83/86) AFA 7, GT 1, P 1. Total: 9**

*Plus tuition.

---

**Montana State University, Bozeman 59717**

**Computer Science**

- J. Denbigh Starkey, Head

**Applications due: 4/1/87**

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<td>Research Assistantships</td>
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**Applications due: 4/1/87**

**Graduate Students:** full-time 20; full-time first year 10; part-time 9

- **Ph.D. (83/86) AFA 7, GT 1, P 1. Total: 9**

**MATHEMATICAL SCIENCES**

- K. Tiahrt, Head

**Applications due: 4/1/87**

**Graduate Students:** full-time 30; full-time first year 6; part-time -

- **Ph.D. (83/86) AFA 7, GT 1. Total: 2**

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**University of Montana, Missoula 59812**

**Mathematical Sciences**

- Keith Yale, Chair

**Applications due: 4/1/87**

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<th>Type of Assistance</th>
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<tr>
<td>Research Assistantships</td>
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**Applications due: 4/1/87**

**Graduate Students:** full-time 21; full-time first year 3; part-time 0

- **Ph.D. (83/86) AFA 7, GT 1, P 1. Total: 2**

---

**Graduate Mathematical Sciences at the University of Montana**

**Ph.D. Program.** This program for the advanced training of college mathematics teachers and other mathematical "generalists" has been developed with aid of a grant from the Advanced Training Projects, NSF Division of Graduate Education. It emphasizes breadth of knowledge, skill in the communication of mathematical thought, an awareness of the influence of mathematics on modern society and intellectual life, and the development of a sense of vocation as teacher and scholar. The program provides the opportunity for both traditional and interdisciplinary thesis work and boasts of a one hundred percent success rate in placing its graduates in positions in 4-year colleges and universities. For details, please write for the "Ph.D. Packet".

**INTERDISCIPLINARY APPLIED MATHEMATICS MASTERS PROGRAM.** This new option in the MA program is intended to prepare students to undertake careers as applied mathematicians, knowledgeable and experienced in the mathematical modeling of scientific phenomena. The program is intended for students whose undergraduate degree is in science or mathematics. It includes an individually tailored course of study, emphasizing the process of modeling and its role in scientific inference, and including some practical experience in model building. The student may choose an emphasis in physical science, biological science, or economic theory and operational analysis. For details, please ask for the "Interdisciplinary Masters Packet". Write to:

Chairman, Graduate Committee - Mathematics Department, University of Montana, Missoula, MT 59812

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1078
Nebraska

Kearney State College, Kearney 68849

MATHMATICS AND STATISTICS

Applications due: 4/1/87

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University of Nebraska–Lincoln 68588

COMPUTER SCIENCE

Faculty 15; Published 14

Graduate Students: full-time 73; full-time first year 20; part-time -

Teaching Assistantship (22: varies) 7500–9000 9 Waived 18-22 Teaching

Research Assistantship (4: varies) 7500–9000 9 Waived 18-22 Research

3000 Bachelor's by inst. 33 Bachelor's by dept. 3 Master's by dept.

MATHMATICS AND STATISTICS

Applications due: *

Faculty 38; Published 34

Graduate Students: full-time 65; full-time first year 24; part-time -

Teaching Assistantship (48:20) 6600–8400 9 210 4-6 Teaching

Ph. D. (83/86) S 1, CS 1, OR 1, AM 1. Total: 4

*Open, but most decisions are made by 4/1/87.

University of Nebraska, Omaha 68182

MATHMATICS AND COMPUTER SCIENCE

Applications due: 3/15/87

Faculty 28; Published 8

Graduate Students: full-time 8; full-time first year 2; part-time 35

Teaching Assistantship (4:4) 4600 9 Waiver 20 Teaching

1151 Bachelor's by inst. 78 Bachelor's by dept. 7 Master's by dept.

Nevada

University of Nevada, Reno 89557

MATHMATICS

Applications due: 3/1/87

Faculty 15; Published 6

Graduate Students: full-time 21; full-time first year 10; part-time 3

Teaching Assistantship (6:2-3) 5600–6500 9 20 Teaching

1177 Bachelor's by inst. 21 Bachelor's by dept. 2 Master's by dept.

University of Nebraska-Lincoln

Department of Mathematics and Statistics

The Department. The department offers study in a broad range of areas including algebraic geometry, applied mathematics, combinatorics, commutative algebra, differential equations, modern analysis, operator theory, optimization, semigroups, and statistics, leading to the M.S., M.A.T., and Ph.D. degrees. A joint Ph.D. program with the Computer Science Department is also available.

Financial Aid. Stipends range from $660 to $840 per month for four to six contact hours. All assistantships include tuition waiver. Summer support is available and outstanding students may be considered for an additional fellowship stipend.

Location. Lincoln, the state capital, is a progressive community of 200,000 with an excellent cultural climate and modest cost of living. The University has 24,000 students and is located on an attractive campus adjacent to downtown.

For information write: Graduate Committee Chair, Department of Mathematics and Statistics
University of Nebraska-Lincoln, Lincoln, NE 68588-0323
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<td>New Hampshire</td>
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Dartmouth College, Hanover 03755

**MATHEMATICS AND COMPUTER SCIENCE**

Richard H. Crowell, Chair

Applications due: 3/1/87

Faculty 31; Published 19

Graduate Students: full-time 17; full-time first year 5; part-time 0

Teaching Fellowship (17:17) 7875 9-12

University of New Hampshire, Durham 03824

**MATHEMATICS**

Richard H. Balomenos, Chairman

Applications due: 4/1/87

Faculty 22; Published 18

Graduate Students: full-time 22; full-time first year 6; part-time 0

Teaching Assistantship (17:6) 5300-6000 9 70 10

Graduate Associates (3:1) 6000-7200 9 70 10

New Jersey

Fairleigh Dickinson University, Madison 07940

**MATHEMATICS, COMPUTER SCIENCE, AND PHYSICS**

Peter Falley, Chairperson

Applications due: 4/15/87

Faculty 8; Published 2

Graduate Students: full-time 1; full-time first year 9; part-time 9

Teaching Assistantship (1:1) 3600 9 54 6

Glassboro State College, Glassboro 08028

**MATHEMATICS AND COMPUTER SCIENCE**

Francis E. Masat, Chairperson

Applications due: 6/15/87

Faculty 30; Published 5

Graduate Students: full-time 2; full-time first year 12; part-time 12

General Assistantship (2.2) 3000 12 20

Clerical

Montclair State College, Upper Montclair 07043

**MATHEMATICS AND COMPUTER SCIENCE**

Kenneth C. Wolff, Chairman

Applications due: 3/15/87

Faculty 30; Published -

Graduate Students: full-time 15; full-time first year 20; part-time 225

Teaching Assistantship (7:7) 3100 9 Waived

New Jersey Institute of Technology, Newark 07102

**MATHEMATICS**

Daljit Singh Ahluwalia, Chairman

Applications due: 2/5/87

Faculty 31; Published 17

Graduate Students: full-time 18; full-time first year 6; part-time 4

Teaching Assistantship (96:9) 5500-7000 9 250 6 Teaching, grading

Princeton University, Princeton 08544

**MATHEMATICS**

Elias M. Stein, Chairman

Applications due: 1/5/87

Faculty 42; Published 32

Graduate Students: full-time 58; full-time first year 12; part-time -

Fellowship (27-3) 6500-12500 9-12

Teaching Assistantship (29:29) 7800-9900 10 20

Research Assistantship (29:29) 6800-7400 10
Rutgers University, New Brunswick 08903

COMPUTER SCIENCE
Casimir A. Kulikowski, Chairman
Applications due: 3/1/87
Bachelor's by inst. 6433
Graduate Students: full-time 107, full-time first year 41, part-time 145
Master's by dept. 55
Ph. D. (83/86) CS 10. Total: 10
Fellowship (4:5:1:2)
Teaching Assistantship (65:30-35)
Research Assistantship (25:--)

MATHMATICS
Joseph D'Atri, Chairman
Applications due: 3/1/87
Bachelor's by inst. 6433
Graduate Students: full-time 86; full-time first year 21; part-time 35
Ph. D. (83/86) ANT 10, AFA 2, GT 6, L 2, AM 6. Total: 26
Fellowship (26:*)
Teaching Assistantship (50:*)
Research Assistantship (6:*)
*Figures not available at this time.

STATISTICS
Robert Berk, Chairman
Applications due: 3/15/87
Bachelor's by inst. 6433
Graduate Students: full-time 47; full-time first year 23; part-time 9
Ph. D. (83/86) S 6. Total: 6
Fellowship (8:3)
Teaching Assistantship (11:2)
Research Assistantship (3:0)

Seton Hall University, South Orange 07079

MATHEMATICS AND COMPUTER SCIENCE
John J. Saccoman, Chairman
Applications due: 5/21/87
Bachelor's by inst. 1027
Graduate Students: full-time 3; full-time first year 1; part-time 7
Master's by dept. 0
Teaching Fellowship (3:3)

Stevens Institute of Technology, Hoboken 07030

PURE AND APPLIED MATHEMATICS
Milos Dostal, Head
Applications due: 4/1/87
Bachelor's by inst. 345
Graduate Students: full-time 12; full-time first year 3; part-time -
Master's by dept. 3
Fellowship (2:--)
Teaching Assistantship (10:--)

NEW JERSEY INSTITUTE OF TECHNOLOGY

Graduate Programs: The Department offers an M.S. degree in applied mathematics.

Financial Aid: There are Teaching Assistantships available to qualified students which carry a stipend of $5,500—7,000 plus tuition remission.

Faculty: Now numbers more than thirty and growing. Areas of research activities: wave propagation, asymptotics, functional analysis, nonlinear dynamics, computational mathematics and differential geometry. Much of the research activity is associated with our new Center for Nonlinear Science and Mathematical Computation.

For further information write to: Daljit S. Ahluwalia
CHAIRMAN-Math Dept.
323 King Blvd.
Newark, NJ 07102.
New Mexico

Eastern New Mexico University, Portales 88130

MATHMATICAL SCIENCES

Ira Thurman Elder, Chairman

Faculty 13; Published 3

Graduate Students: full-time 15; full-time first year 5; part-time 2

Teaching Assistantship (8:8) 4800 9 590 9

New Mexico Highlands University, Las Vegas 87701

MATHMATICS

Jon Schlosser, Chairman

Applications due: 5/15/87

Faculty 7; Published 1

Graduate Students: full-time 3; full-time first year 3; part-time 2

Teaching Assistantship (3:3) 6800 9 15 Grading

New Mexico Institute of Mining and Technology, Socorro 87801

MATHMATICS

Allan Gutjahr, Chairman

Applications due: 4/1/87

Faculty 10; Published 5

Graduate Students: full-time 7; full-time first year 4; part-time 1

Teaching Assistantship (7:3) 6100–6300 9 Waived 20 Teaching, grading, tutoring

Research Assistantship (2:1) 8500–10000 12 Waived 20 Research

New Mexico State University, Las Cruces 88003

MATHMATICAL SCIENCES

Carol L. Walker, Head

Applications due: 3/15/87

Faculty 34; Published 26

Graduate Students: full-time 35; full-time first year 6; part-time 15

Teaching Fellowship (5:0) 7724–10386 9 380.25–513 15–20 Teaching

Teaching Assistantship (22–28:6–10) 6614–6924 9 380.25 20 Teaching

Research Assistantship (3–5:1–3) 6614–6924 9 380.25 20 Research

University of New Mexico, Albuquerque 87131

COMPUTER SCIENCE

Edward Angel, Chairman

Applications due: 6/30/87

Faculty 16; Published 12

Graduate Students: full-time 50; full-time first year 25; part-time 56

Teaching Assistantship (13–5) 5250–6750 9 Waived 20 Teaching

Research Assistantship (Varies–5) 5000–10000 9–12 Waived 20 Research

MATHMATICS

Richard J. Griego, Chairman

Applications due: 3/31/87

Faculty 41; Published 28

Graduate Students: full-time 54; full-time first year 12; part-time 9

Teaching Assistantship (25–5) 5700–6200 9 Waived 5* Teaching

*Grant Graduate Professional Fellowship Program (minority/women).

New York

City University of New York, City College, New York 10031

MATHMATICS

Jack Barshay, Chairman

Applications due: 5/1/87

Faculty 49; Published 15

Graduate Students: full-time 9; full-time first year 4; part-time -

Fellowship (3–5) 1000–2000 9 650–1600 3 Grading, research

Teaching Assistantship (12–5) 4600–9200 9 650–1600 4–8 Teaching

1082
STIPEND FEES SERVICE REQUIRED
(Total no.: no. anticipated) paid to student
hours
paid by
student (($) type

Clarkson University, Potsdam 13676
MATHMATICS AND COMPUTER SCIENCE
Athanasios S. Fokas, Chairman

Teaching Assistantship (15:6) 9000-11000 12 Graduate Students: full-time 32; full-time first year 8; part-time 14
Research Assistantship (5:1) 12 20

Applications due: 3/15/87
Faculty 22, Published 17 Bachelor's by inst. 1085
Graduate Students: full-time 32; full-time first year 8; part-time 14 Bachelor's by dept. 84
Ph. D. (83/86) AFA 2, CS 1,
AM 4, Other 2. Total: 9

Columbia University, New York 10027
COMPUTER SCIENCE
J. L. Gross, Vice-Chairman

Fellowship (61:15) 9810 9

Applications due: 1/20/87
Faculty 22; Published 22 Bachelor's by inst. 1317
Graduate Students: full-time 156; full-time first year 88; part-time 145 Bachelor's by dept. 69
Ph. D. (83/86) CS 8. Total: 8

MATHEMATICS
John W. Morgan, Chairman

Fellowship (35:10)** 8000 9 ***

Applications due: 1/15/87*
Faculty 29; Published 27 Bachelor's by inst. 1317
Graduate Students: full-time 44; full-time first year 10; part-time 1 Bachelor's by dept. 12
Ph. D. (83/86) ANT 8, AFA 2, GT 9. Total: 19

*Late applications considered.
**All supported students are regarded as Fellows by the Department. Of these Fellows, approximately 5 per academic year receive their stipends through the National Science Foundation in the form of Graduate Research Assistantships. All students are funded equally. All students are required to serve as teaching assistants for three of the four years of support. Services include helping students with class work, grading, leading recitation sections. Teaching assistants do not serve as course instructors.
***All graduate students are currently fully funded for four years. Such funding includes a stipend plus tuition and fees.

NEW MEXICO STATE UNIVERSITY


* Financial Support. Teaching Assistantships available. Also support for work in mathematical aspects of AI, including Computer Vision, Pattern Recognition, Neural Network Modeling. Development work in CAI and Technical Text Editors.

Direct inquiries to: Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003

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<td>John van Ryzin, Chairman</td>
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<td>Cornell University, Ithaca 14853</td>
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**For information, call 516-560-5570 or write Department of Mathematics HOFSTRA UNIVERSITY HEMPSTEAD, NEW YORK 11550**

**Hofstra University is an equal educational opportunity institution.**

1084
Polytechnic Institute of New York, Brooklyn 11201

MATHMATICS
Harry Hochstadt, Chairman

Teaching Fellowship (4:–) Applications due: 3/1/87
Graduate Students: full-time 6; full-time first year 1; part-time 28
Ph. D. (83/86) AFA 3, S 3.
Total: 6

COMPUTER SCIENCE
Joseph E. Flaherty, Chairman

Teaching Assistantship (32:20) Applications due: 2/15/87
Graduate Students: full-time 130; full-time first year 50; part-time 40
Ph. D. (83/86) CS 5. Total: 5

MATHMATICAL SCIENCES
Joseph E. Flaherty, Chairman

Teaching Assistantship (27:10) Applications due: 2/15/87
Graduate Students: full-time 74; full-time first year 22; part-time 5
Ph. D. (83/86) OR 2, AM 10.
Total: 12

State University College at Brockport 14420

MATHMATICS AND COMPUTER SCIENCE
Kazumi Nakano, Chairperson

Teaching Assistantship (3:3) Applications due: 5/15/87
Graduate Students: full-time 22; full-time first year 7; part-time 30
Ph. D. (83/86) ANT 7, AFA 5,
Total: 21

State University of New York at Albany 12222

MATHMATICS AND STATISTICS
Joe W. Jenkins, Chairman

Teaching Assistantship (3:3) Applications due: 3/1/87
Graduate Students: full-time 35; full-time first year 18; part-time 20
Ph. D. (83/86) ANT 1, AFA 3,
Total: 11

State University of New York at Buffalo 14214

MATHMATICS
Lewis A. Coburn, Chairman

Teaching Assistantship (3:3) Applications due: *
Graduate Students: full-time 61; full-time first year 17; part-time 5
Ph. D. (83/86) ANT 1, AFA 3,
Total: 11

STATISTICS
Peter Enis, Chairman

Teaching Assistantship (6:2) Applications due: 3/15/87
Graduate Students: full-time 25; full-time first year 12; part-time 3
Ph. D. (83/86) P 1, S 2.
Total: 3

State University of New York at Stony Brook 11794

APPLIED MATHMATICS AND STATISTICS
Alan Tucker, Chairman

Teaching Assistantship (10:3) Applications due: 3/1/87
Graduate Students: full-time 75; full-time first year 25; part-time 30
Ph. D. (83/86) S 4, OR 8,
Total: 25

1085
Teaching Assistantship (2-3) Partial
STATISTICS
Teaching Fellowship (2-3:2) 7000-8000 9 60-320 5 Teaching
Teaching Assistantship (48-50:15) 7000-8000 9 60-320 10 Teaching
Research Assistantship (12-15:--) 7000-8000 9 60-320 10 Research

*Syracuse University, Syracuse 13210

Applications due: 2/15/87

FOURTH, 1000-1100 2

Research Assistantship (30:--) 6000 9 15-20 Research
Research Assistantship (30:--) 6000 9 15-20 Research

Applications due: 3/15/87

Applications due: 2/15/87

Applications due: 2/15/87

MATHMATICS
Irwin Kra, Chairman
Fellowship (4-6:3) 7500-9500 9 60-320 5 Teaching
Teaching Fellowship (2-3:2) 7000-8000 9 60-320 5 Teaching
Teaching Assistantship (68:20) 7225-9000 8.5-10.5 46 4.6 Teaching, grading

SUMMER FELLOWSHIP

SUMMER FELLOWSHIP

*Late applications considered.

University of Rochester, Rochester 14627

Applications due: 2/15/87

Applications due: 2/15/87

Applications due: 2/15/87

Applications due: 2/15/87

Applications due: 3/15/87

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APPLICATIONS DUE: 2/15/87

APPLICATIONS DUE: 2/15/87
North Carolina

Appalachian State University, Boone 28608

MATHEMATICAL SCIENCES
H. William Paul, Chairman

Applications due: 4/1/87
Faculty 30; Published 2
Graduate Students: full-time 11; full-time first year 4; part-time -

Teaching Assistantship (12:8) 3400-5100 9 12 Teaching, grading

Duke University, Durham 27706

COMPUTER SCIENCE
Donald J. Rose, Chairman

Applications due: 2/1/87
Faculty 24; Published 24
Graduate Students: full-time 52; full-time first year 12; part-time 2

Fellowship (4:10) 8100 9 Waived
Teaching Assistantship (11:2) 8100 9 Waived 20 Consultant to students
Research Assistantship (18:2) 8100 9 Waived 20 Research
MCNC Fellow (2:2) 12600 12 Waived
Von Neuman (1:1) 13600 12 Waived
JBD (1:2) 13600 12 Waived

MATHEMATICS
Michael C. Reed, Chairman

Applications due: 1/31/87
Faculty 31; Published 26
Graduate Students: full-time 28; full-time first year 12; part-time 1

Fellowship (4:2) 15900-17400 9 7404 9 5352 4* Gradning, teaching
Teaching Fellowship (7:7) 13952 9 5352 6* Gradning, teaching
Teaching Assistantship (20:-) 13952 9 5352 6* Research
Research Assistantship (3:-) 13952 9 5352 6* Research

East Carolina University, Greenville 27834

MATHEMATICS
Robert L. Bernhardt, Chairman

Applications due: 4/15/87
Faculty 38; Published 18
Graduate Students: full-time 12; full-time first year 3; part-time 20

Teaching Fellowship (13:6-7) 3700-7400 9 * 5-10* Teaching
Computer & Office (Math Lab Asst.) (2:1) 3700-5180 9 * 12.5-15 **

*In-state: $778 per year; out-of-state: $4026 per year; special talent, out-of-state: $778 per year.
**Assist in Computer Center and Mathematics Lab.

GRADUATE STUDY IN MATHEMATICS AT DUKE

The Department of Mathematics of Duke University offers courses and thesis direction leading to the degrees of Master of Arts, and Doctor of Philosophy. The Department and University offer fellowships, teaching assistantships, and research assistantships. There are 27 graduate faculty members representing many areas of mathematics, especially nonlinear partial differential equations and geometry. Excellent library facilities as well as office space are available in the mathematics building. For further information write to:

Professor Lawrence C. Moore
Director of Graduate Studies, Department of Mathematics
Duke University
Durham, North Carolina 27706

1087
North Carolina State University, Raleigh 27695

MATHMATICS
E. E. Burniston, Head

Applications due: 4/1/87
Faculty: 74; Published: 46
Graduate Students: full-time 76; full-time first year 19; part-time 8

Teaching Assistantship (70:20) 7200-7800 9 840 20 Teaching, grading
Research Assistantship (7:2) 8500-12000 12 840 15-20 Research

STATISTICS
Daniel L. Solomon, Head

Applications due: 3/1/87
Faculty: 36; Published: 32
Graduate Students: full-time 81; full-time first year 24; part-time 0

Fellowship (3:3) 8100 9
Teaching Assistantship (22:12) 7000 9 856 20 Teaching, grading
Research Assistantship (25:5) 9000-12000 12 856 20 Research

Graduate Students:
full-time 9; full-time first year 16; part-time 2

Teaching, grading
Research

University of North Carolina, Chapel Hill 27514

MATHMATICS
John A. Pfaltzgraff, Chairman

Applications due: 2/1/87
Faculty: 30; Published: 24
Graduate Students: full-time 31; full-time first year 16; part-time 2

Fellowship (1:1) 8000 9 770
Teaching Fellowship (1:1) 8000 9 770 3-6'
Teaching Assistantship (44:10) 6500-8500 9 770 4-6'

NORTH CAROLINA STATE UNIVERSITY

The Department of Mathematics offers flexible programs of study leading to M.S. and Ph.D. degrees in pure and applied mathematics. A graduate faculty of more than 50 represents a wide variety of research interests with strengths in abstract algebra, linear algebra, analysis, functional analysis, differential equations, applied mathematics, numerical analysis, control theory, biomathematics, topology, mathematical physics, category theory and geometric programming. The Department has close ties with several other departments on the campus; namely, Computer Science, Operations Research, Physics, Statistics and several engineering departments.

N. C. State is located in Raleigh, capital of North Carolina and one of the vertices of the Research Triangle. Cultural, scholastic, and recreational opportunities abound.

Teaching and research assistantships and scholarships are available. Summer support is also possible. For detailed information concerning the Department admission and degree requirements, and financial assistance together with application forms write to:

PROFESSOR JOHN FRANKE — Department of Mathematics — Box 8205
North Carolina State University — Raleigh, N.C. 27695-8205

UNIVERSITY OF NORTH CAROLINA

The Department of Mathematics offers programs leading to the degrees Master of Arts, Master of Science, and Doctor of Philosophy. Faculty members are active in research especially in the fields of classical analysis, algebra, combinatorics, differential geometry, dynamical systems, algebraic topology, foliation theory, algebraic geometry, several complex variables, numerical analysis, and partial differential equations. Financial assistance is available and can be obtained by writing to address below. There is great flexibility in arranging the masters degree program to include course work in Operations Research and Systems Analysis, Statistics, Computer Science and other areas related to mathematical sciences.

Department of Mathematics
University of North Carolina at Chapel Hill
Chapel Hill, N.C. 27514

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<td>Charles J. Martin, Head</td>
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<td>Applications due: 3/31/87</td>
<td>Ronald M. Mathsen, Chair</td>
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<td>Milton E. Winger, Chairperson</td>
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<td>Bowling Green State University, Bowling Green 43403</td>
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<td>APPLIED STATISTICS AND OPERATIONS RESEARCH</td>
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<td>James A. Sullivan, Chair</td>
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<td>Teaching Assistantship (9:10-3-6)</td>
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<td>Arjun K. Gupta, Chairman</td>
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<td>Graduate Students: full-time 49; full-time first year 20; part-time 16</td>
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<td>EPIDEMIOLGY AND BIOSTATISTICS</td>
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<td>Harold B. Houser, Chairman</td>
<td>Faculty 17; Published 17</td>
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<td>Graduate Students: full-time 7; full-time first year 2; part-time 10</td>
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<td>Bachelor's by inst. 600</td>
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<td>Wojbor A. Woyczynski, Chairman</td>
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<td>Bachelor's by dept. 15</td>
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<td>Graduate Students: full-time 11; full-time first year 3; part-time 6</td>
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<td>Teaching Assistantship (7:2)</td>
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<td>6185</td>
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<td>Arnold Reisman, Chairman</td>
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<td>Thomas W. Hungerford, Chairman</td>
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<td>*Tutoring and grading; teaching is possible.</td>
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<td>Olaf P. Stackelberg, Chairman</td>
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<tr>
<td>David J. Lutzer, Chair</td>
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<td>Teaching Assistantship (24:24)</td>
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<td>Summer Fellowship (24:12)</td>
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1090
Ohio State University, Columbus 43210

MATHMATICS

Joseph Ferrar, Chairman

Fellowship (8:20) 8600 12 5388*
Teaching Fellowship (10:10) 250-1000* 9 Teaching
Teaching Assistantship (175:100) 7000-7800 9 5-6 Teaching
Research Assistantship (2:2-5) 7000-7800 9 20 Research
Summer Fellowship (82:75) 1800 3

*Augmentation is in addition to a teaching assistantship stipend.

Ohio University, Athens 45701

MATHMATICS

Shih-liang Wen, Chairman

Fellowship (6:4) 9120 12 5388*
Teaching Fellowship (4:-) 6255-6525 9 5388 Teaching, grading
Research Assistantship (2:-) 6255-6525 9 5388* Research

*Includes out-of-state tuition.

Further information and application materials are available from:

THE OHIO STATE UNIVERSITY
Department of Mathematics, 231 West 18th Avenue
Columbus, Ohio 43210

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<td>Research</td>
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**University of Akron, Akron 44325**

**MATHEMATICAL SCIENCES**

Applications due: 3/1/87

Faculty 39, Published -

Graduate Students: full-time 19, full-time first year 5, part-time 27

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**University of Cincinnati, Cincinnati 45267**

**BIOSTATISTICS**

Applications due: 5/87

Faculty 6, Published 6

Graduate Students: full-time 10, full-time first year 3, part-time 12

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**University of Cincinnati, Cincinnati 45221**

**MATHEMATICAL SCIENCES**

Applications due: 2/15/87

Faculty 40; Published 34

Graduate Students: full-time 80, full-time first year 23, part-time 10

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<td>Ph. D. (83/86) ANT 1, AFA 2, S 1, AM 2. Total:</td>
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**UNIVERSITY OF CINCINNATI**

**Degree Programs:** The department offers programs leading to the M.S., M.A.T., and Ph.D. degrees in a variety of areas. The Master's program is primarily intended to prepare students for employment as mathematicians in business, industry or government. Ph.D. candidates can choose from a variety of faculty research interests including algebra, complex analysis, dynamical systems, functional analysis, numerical analysis, ordinary and partial differential equations, probability, statistics and topology.

**Financial Aid:** Both Fellowships and Teaching Assistantships are available to qualified students. The current level of support is $6,200 to $7,200 for 9 months. Tuition remission is included with all financial aid. It is anticipated that stipends will be raised for the 1987-88 academic year.

**R.J. Macintyre Teaching Fellowships:** Two teaching fellowships are available to outstanding new applicants and may be renewed for one year upon superior performance. The present stipend is $7,200 for 9 months and includes tuition remission and reduced teaching load.

**Summer Research Assistantships:** Continuing students with excellent records are considered for summer research assistantships that pay $1,000 for 2 months.

For more information contact: **Professor David Minda**  
**Graduate Program Director**  
**Department of Mathematical Sciences**  
**University of Cincinnati**  
**Cincinnati, OH 45221-0025**
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<th>Type of Assistance</th>
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<th>Fees</th>
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<td>Applications due: 3/15/87</td>
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<td>Graduate Students: full-time 30; full-time first year 10; part-time -</td>
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<td>James R. Evans, Head</td>
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<td>COMPUTER SCIENCE</td>
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<td>Faculty 12; Published 2</td>
<td>Graduate Students: full-time 25; full-time first year 8; part-time 110</td>
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<td>Jack E. Kester, Chairman</td>
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<td>Bachelor's by dept. 64</td>
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<td>John W. McCloskey, Chairman</td>
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<td>MATHEMATICS</td>
<td>Applications due: Open</td>
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<td>Graduate Students: full-time 27; full-time first year 8; part-time 7</td>
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<td>Harvey Wolff, Chairman</td>
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<td>Bachelor's by dept. 11</td>
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<td>Applications due: 4/15/87</td>
<td>Faculty 28; Published 9</td>
<td>Graduate Students: full-time 6; full-time first year 5; part-time 20</td>
<td>Bachelor's by inst. 84</td>
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<td>Richard L. Burden, Chairman</td>
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<td>Oklahoma State University, Stillwater 74078</td>
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<tr>
<td>COMPUTING AND INFORMATION SCIENCE</td>
<td>Applications due: 3/1/87</td>
<td>Faculty 10; Published 7</td>
<td>Graduate Students: full-time 99; full-time first year 25; part-time 0</td>
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<td>G. E. Hedrick, Head</td>
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<td>*In addition to assistantship stipend.</td>
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<td>STATISTICS</td>
<td>Applications due: 4/15/87</td>
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<td>Graduate Students: full-time 31; full-time first year 10; part-time 5</td>
<td>Bachelor's by inst. 3207</td>
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<td>J. Leroy Folks, Head</td>
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<td>Bachelor's by dept. 2</td>
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<td>Teaching Assistantship (13:8)</td>
<td>6300-6570</td>
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<td>8400-8760</td>
<td>12</td>
<td>600</td>
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Oklahoma
University of Oklahoma Health Science Center, Oklahoma City 73190

BIOSTATISTICS AND EPIDEMIOLOGY
Judy A. Bean, Chairperson

Applications due: Open
Faculty 7; Published 7
Graduate Students: full-time 14; full-time first year 9; part-time 40

General Purpose Traineeship (4:2) 3600
12 *
*Tuition not paid separately by traineeship award.

Ph. D. (83/86) S 2, Other 5.
Total: 7

University of Oklahoma, Norman 73019

MATHEMATICS
Stanley B. Eliason, Chairman

Applications due: 4/30/87
Faculty 29; Published 26
Graduate Students: full-time 49; full-time first year 15; part-time 0

Teaching Assistantship (33:8) 6500
9 33.90/hr. 6 Teaching
Research Assistantship (4:2) 6500
9 33.90/hr. 20 Research

Ph. D. (83/86) ANT 2, GT 1,
ME 1. Total: 4

University of Tulsa, Tulsa 74104

MATHEMATICAL AND COMPUTER SCIENCES
William A. Coberly, Chairman

Applications due: 3/1/87
Faculty 17; Published 11
Graduate Students: full-time 22; full-time first year 5; part-time 24

Fellowship (3:3) 5200
9 Waived Grading, teaching
Teaching Assistantship (4:2) 5200
9 Waived Grading, teaching
Research Assistantship (8:4) 5200
9 Waived 15-20 Research
Industry Intern (4:2) 8000
9 3870 15-20 Research

The University of Oklahoma
Graduate Studies in Mathematics

The Department has a vigorous and expanding research faculty. All the major mathematical disciplines are represented, with special strengths in algebra, applied mathematics, control theory, convexity, differential geometry and topology.

Pure Mathematics. The Department offers both the M.A. and Ph.D. degrees.

Mathematics Education. The Department cooperates with the College of Education to offer both M.A. and Ph.D. degrees in Mathematics Education.

Applied Mathematics. The Department offers the M.S. degree designed to allow the student to specialize in any of a broad range of applications, including, for example, statistics, computer-related mathematics and applied differential equations. In addition, the Department offers a joint M.S. degree in cooperation with the College of Business.

Financial Aid. In addition to Teaching Assistantships and Research Assistantships, the Department offers fee waivers and Karcher Endowed Fellowships.

For information write: William O. Ray
Director of Graduate Studies
Department of Mathematics
The University of Oklahoma
Norman, Oklahoma 73019

1094
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<td>Walter G. Rudd, Chairman</td>
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<td><strong>MATHEMATICS</strong> (Ad on p. 1096)</td>
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<td>C. R. B. Wright, Head</td>
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<tr>
<td><strong>M.A., M.S. and Ph.D. in Mathematics</strong></td>
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<tr>
<td>Courses of study for the Ph.D. and M.S. degrees are available in all of the principal branches of mathematics: algebra, analysis, applied mathematics, geometry, probability, and topology. In addition, there is a program in mathematics education leading to an M.A. or an M.S. degree with a teaching emphasis, and a career program featuring an occupational internship leading to an M.A. or M.S. for students planning government or industrial careers in mathematics. Teaching Assistantships $5484–$6397 plus tuition remission. For application materials write:</td>
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<tr>
<td>Professor Harold Parks</td>
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<tr>
<td>Department of Mathematics</td>
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<tr>
<td>Oregon State University, Corvallis, OR 97331</td>
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</table>

1095
Western Oregon State College, Monmouth 97361

MATHMATICS

Applications due: 9/1/87

James Barnard, Chairman

Faculty 9; Published 1

Graduate Students: full-time 2; full-time first year 1; part-time 15

Inst. Assistantship (2-)

1500 9 12-15

Pennsylvania

Bucknell University, Lewisburg 17837

MATHMATICS

Applications due: 3/1/87

David S. Ray, Head

Faculty 18; Published 15

Graduate Students: full-time 2; full-time first year 1; part-time -

Fellowship (2-)

925 9

Teaching Assistantship (5-)

3000 9 15 Grading, tutoring

Scholarship (3-)

9

Carnegie-Mellon University, Pittsburgh 15213

MATHMATICS

Applications due: 2/10/87

William O. Williams, Acting Head

Faculty 28; Published 24

Graduate Students: full-time 59; full-time first year 16; part-time 4

Teaching Assistantship (40:14)

7500-8100 9 4 Grading

Research Assistantship (9:0)

10200-10440 12 24 Grading

STATISTICS

John P. Lehoczky, Head

Applications due: 3/87

Faculty 11; Published 11

Graduate Students: full-time 28; full-time first year 12; part-time 1

Fellowship (1-)

1100 9 10500

Teaching Fellowship (18:3)

6075-6750 9 10500 12 Grading, teaching, research

Teaching Assistantship (5:3)

2250-2700 9 8400-10500 6 Grading

Research Assistantship (2-)

6552 12 10500

Scholarship (2-)

2250-2700 9 6 Grading

Drexel University, Philadelphia 19104

MATHMATICS AND COMPUTER SCIENCE

Applications due: 3/15/87

Loren N. Argebright, Head

Faculty 39; Published 30

Graduate Students: full-time 45; full-time first year 16; part-time 100

Teaching Assistantship (40:18)

5000-6000 9 Waived 6

Research Assistantship (5:2)

5000-6000 9 Waived 20

THE UNIVERSITY OF OREGON

Graduate Programs. The Department of Mathematics offers established programs leading to the M.S. and Ph.D. degrees in pure and applied mathematics, numerical analysis, mathematical statistics, and mathematics education.

Graduate classes are small and there is a tradition of personal contacts among faculty and students. Facilities include nearby computing services and a mathematics library housed adjacent to the offices.

Graduate Teaching Fellowships involve 4 contact hours per week, leaving time for carrying a full graduate program. Students find the cost of living in Eugene to be moderate and have access to ocean and mountain recreation areas a short distance away.

For further information and application materials write or telephone:

Charles R.B. Wright, Head, Department of Mathematics
University of Oregon, Eugene, Oregon 97403
Phone (503) 686-4705

The University of Oregon is an Equal Employment/Affirmative Action Employer.
Pennsylvania State University, University Park 18602

COMPUTER SCIENCE

Applications due: 2/1/87

Joseph M. Lambert, Head
Faculty 31; Published 24

Graduate Students: full-time 112, full-time first year 22, part-time 27

Fellowship (1-3:1-3) 7100-7580 9* 7100-7580 9* 7100-7580 9*
Teaching Assistantship (42:15-20) 7100-7580 9* 7100-7580 9* 7100-7580 9*
Research Assistantship (11:2) 7100-7580 9* 7100-7580 9* 7100-7580 9*

*Additional support may be available in the summer session.

STATISTICS

Applications due: 2/1/87

Graduate Students: full-time 20, full-time first year 9, part-time 4

Fellowship (1:3) 7100-7580 9* 7100-7580 9* 7100-7580 9*
Teaching Assistantship (32:15) 7100-7580 9* 7100-7580 9* 7100-7580 9*
Research Assistantship (2-2) 7100-7580 9* 7100-7580 9* 7100-7580 9*

*Additional support may be available in the summer session.

Shippensburg State University, Shippensburg 17257

MATHEMATICS AND COMPUTER SCIENCE

Applications due: 3/1/87

Howard T. Bell, Chairman
Faculty 23; Published 7

Graduate Students: full-time 2, full-time first year 0, part-time 48

Graduate Assistantship (9:9) 2840 9 20 Grading, teaching, research

Temple University, Philadelphia 19122

MATHEMATICS (Ad on p. 1098)

Applications due: 3/1/87

Louis Raymon, Chairman
Faculty 45; Published 32

Graduate Students: full-time 40, full-time first year 18, part-time 5

Fellowship (4:3) 6000-10000 12 6000-10000 12 6000-10000 12
Teaching Fellowship (4:-) 10000 9 Varies 6-8* 10000 9 Varies 6-8*
Teaching Assistantship (26:10) 6000-7000 10 6000-7000 10 6000-7000 10

STATISTICS

Applications due: 3/1/87

William Wei, Chairman
Faculty 24; Published 19

Graduate Students: full-time 29, full-time first year 9, part-time 19

Fellowship (2:1) 6000-10200 9-12 6000-10200 9-12 6000-10200 9-12
Teaching Fellowship (1:1) 8000 9 20 Teaching 8000 9 20 Teaching 8000 9 20 Teaching
Teaching Assistantship (9:9) 6000 9 20 Teaching 6000 9 20 Teaching 6000 9 20 Teaching
Research Assistantship (10:10) 5000 9 20 Research 5000 9 20 Research 5000 9 20 Research

University of Pennsylvania, Philadelphia 19104

MATHEMATICS

Applications due: 2/15/87

Frank W. Warner, Chairman
Faculty 34; Published 30

Graduate Students: full-time 40, full-time first year 9, part-time 0

Fellowship (10:8) 6500 9* 6500 9* 6500 9*
Teaching Assistantship (38:10) 6500 9* 696 12 Grading, teaching 6500 9* 696 12 Grading, teaching

*In some cases, summer support is available.

**Full-time, research, course work.

STATISTICS

Applications due: 2/15/87

David K. Hildebrand, Chairman
Faculty 14; Published 13

Graduate Students: full-time 15, full-time first year 4, part-time 9

Fellowship (2:2) 3000-10000 9 3000-10000 9 3000-10000 9
Teaching Assistantship (12:5) 6000-7500 9 650 12 6000-7500 9 650 12

Ph. D. (83/86) S 5. Total: 5

1097
TEMPLE UNIVERSITY

ARE YOU LOOKING FOR:

A department of over 40 members actively involved in research in pure and applied mathematics?
Small classes and close contact with faculty, together with the rich resources of a large university?
Stimulating seminars and colloquia?
The cultural, social and recreational facilities of a major metropolitan center?

IF SO: The Mathematics Department of Temple University may be the place for you

For more information about our M.A. and Ph.D. programs in pure and applied mathematics, write to Graduate Chairman, Box N, Department of Mathematics 038-16
Temple University, Philadelphia, Pa. 19122
Puerto Rico

University of Puerto Rico, Mayaguez 00708

Mathematics

Applications due: 8/15/87

Graduate Students: full-time 15; full-time first year 6; part-time 4

Teaching Assistantship (30:15) 3500-5250 10 100 6

University of Puerto Rico, Rio Piedras 00931

Mathematics

Applications due: 3/1/87

Graduate Students: full-time 44; full-time first year 14; part-time 4

Teaching Assistantship (30:10) 350 10 810 18 Grading, teaching
Research Assistantship (3:0) 350 10 810 18 Research

Rhode Island

Brown University, Providence 02912

Applied Mathematics

Applications due: 1/2/87

Graduate Students: full-time 56; full-time first year 18; part-time 4

Fellowship (11:20) 6500-9000 9
Teaching Assistantship (14:2) 6500-7000 9 20 Teaching
Research Assistantship (20:4) 6500-6900 9 20 Research
Proctors, Title IX (4:2) 6500-6900 9

Mathematics

Applications due: 1/2/87

Graduate Students: full-time 36; full-time first year 18; part-time 4

Fellowship (-16) 6000-7200 9-12
Teaching Assistantship (-18) 3100-7000 9 4 Teaching
Research Assistantship (-2) 3100-6200 9 4 Research

Rhode Island College, Providence 02908

Mathematics and Computer Science

Applications due: 4/15/87

Graduate Students: full-time 4; full-time first year 0; part-time 15

Teaching Assistantship (2:-) 4000 9 20 *

*Three hours per week in-class teaching, seven hours per week preparing and 10 hours per week tutoring.

University of Rhode Island, Kingston 02881

Computer Science and Statistics

Applications due: 4/15/87

Graduate Students: full-time 60; full-time first year 17; part-time 16

Fellowship (1-2-1-2) 5900-6700 9 20 Grading, teaching
Research Assistantship (2-3-1-2) 5900-6700 9 20 Research

1099
South Carolina

Clemson University, Clemson 29634

MATHEMATICAL SCIENCES
John D. Fulton, Head

Applications due: * Faculty 45; Published 26 Graduate Students: full-time 81; full-time first year 37; part-time 7

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<td>8160-8850</td>
<td>12 600** 20 Research</td>
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<td>Programming (4:2)</td>
<td>8500</td>
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*Fellowships: 2/1/87; assistanceships: 4/1/87.

**Full-time.

University of South Carolina, Columbia 29208

MATHEMATICS
Colin Bennett, Chairman

Applications due: 3/15/87 Graduate Students: full-time 54; full-time first year 27; part-time 22

<table>
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STATISTICS
W. J. Padgett, Chairman

Applications due: 3/1/87 Graduate Students: full-time 23; full-time first year 9; part-time 6

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UNIVERSITY OF SOUTH CAROLINA
DEPARTMENT OF MATHEMATICS

The Department offers programs of study leading to the M.S., M.A., and Ph.D. degrees in Mathematics. In addition, there are two teaching-oriented nonthesis degrees — the Master of Mathematics and Master of Arts in Teaching.

Students may specialize in pure or applied mathematics. Specific areas of specialization in pure mathematics include algebra, analysis, differential geometry, discrete mathematics, logic, number theory and topology. Specialization in applied mathematics is offered in approximation theory, differential equations and numerical analysis. Students in applied mathematics are encouraged to undertake study in a cognate discipline to which their specialization is directly applicable.

The broad spectrum of advanced study is supported by excellent library holdings and computing facilities within the department.

FINANCIAL AID

The primary source of financial aid is the graduate assistantship. The Department offers teaching assistantships, grading assistantships, and service assistantships with the computing laboratory. In addition, a number of research assistantships are available through faculty grants. Full-time teaching assistantships typically require 3—5 contact hours per week and carry a stipend of $7200 to $8000 for the academic year. In addition, graduate assistants receive a substantial reduction in tuition and fees. Summer stipends range from $1200 to $2000, for those who desire summer support.

For further information and application materials, contact the Director of Graduate Studies, Department of Mathematics, University of South Carolina, Columbia, South Carolina 29208.
<table>
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**Tennessee**

East Tennessee State University, Johnson City 37614

| Mathematics | Applications due: 3/1/87 | Bachelor's by inst. | 582 |
| George D. Poole, Chairman | Faculty 17; Published 6 | Bachelor's by dept. | 20 |
| Graduate Students: full-time 10; full-time first year 4; part-time - | |
| Teaching Assistantship (3:3-4) | 4100-4300 | 9 | 6 |

Memphis State University, Memphis 38152

| Mathematical Sciences | Applications due: 3/1/87 | Bachelor's by inst. | 1679 |
| Ralph J. Fadrowe, Chairman | Faculty 35; Published 24 | Bachelor's by dept. | 41 |
| Graduate Students: full-time 58; full-time first year 28; part-time 66 | Master's by dept. | 51 |
| Teaching Assistantship (34:20) | 6600-8800 | 9 | 1200 | 20 | Grading, teaching |

Middle Tennessee State University, Murfreesboro 37132

| Mathematics | Applications due: 4/15/87 | Bachelor's by inst. | 1427 |
| Harold S. Spraker, Chairman | Faculty 24; Published 12 | Bachelor's by dept. | 25 |
| Graduate Students: full-time 18; full-time first year 7; part-time 3 | Master's by dept. | 5 |
| Teaching Fellowship (8:8) | 4676-4922 | 9 | 20 |

University of Tennessee, Knoxville 37996

| Mathematics | Applications due: 3/1/87* | Bachelor's by inst. | 3357 |
| John S. Bradley, Head | Faculty 44; Published 38 | Bachelor's by dept. | 23 |
| Graduate Students: full-time 52; full-time first year 8; part-time 5 | Master's by dept. | 15 |
| Teaching Fellowship (2:2) | 9000** | 9*** | 195 | 4 |
| Teaching Assistantship (33:13) | 7000-7900** | 9*** | 195 | 6-8 |
| Research Assistantship (2:0) | 11500 | 12 | 2020 | 20 |
| Science Alliance Teaching Assistantship (10:0) | 9200-11238** | 9*** | 195 | 4-8 |
| Science Alliance Associateship (3:3) | 10000-10900** | 9*** | 195 | 6-8 |

*Late applications accepted.  
***Summer support normally available.

1101
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<th>FEES</th>
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<td>20 Consulting</td>
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<td>Rice University, Houston 77251</td>
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<td>F. R. Harvey, Chairman</td>
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TEACHING FELLOW STIPENDS FOR 1986–87
WILL RANGE FROM $7,200 TO $10,000

The University: North Texas State University is located in Denton, Texas, a city of 50,000 residents just 35 miles north of the Dallas-Fort Worth metroplex and about 25 miles north of the D/FW Airport. The North Central Texas climate is mild and the University's location offers many cultural, recreational, and economic opportunities to students. The University enrolls more than 21,000 students with nearly one-third of these engaged in graduate study. Our school of Music is the second largest in the country.

The Mathematics Library: The University maintains one of the nation’s finest library collections in the mathematical sciences with more than 17,000 volumes. The library currently subscribes to 554 mathematics journals, has 388 complete runs, and 729 journal titles represented.

The Department: The Department offers programs of instruction and research leading to the Master of Arts, Master of Science and Doctor of Philosophy degrees. It is one of only a very few departments in the world which furnishes a research and an educational experience for its students in the “Texas Tradition”, a method of learning and doing mathematics used by Professors R. L. Moore and H. S. Wall of the University of Texas. This method is widely used by our faculty along with a variety of other techniques which enable the students to have excellent research and educational training in mathematics. The department has 20 faculty members and 50 teaching fellow positions. There are approximately 60 graduate students in mathematics. We have been fortunate to have as our guests in recent years S. Kakutani, Stan Ulam, Paul Erdos, W. Zelazko, S. Graf, and Gian-Carlo Rota.

Financial Assistance: Teaching fellow stipends are $2000 per class for students with a master’s degree and $1800 per class for students with a Baccalaureate degree in mathematics. A class generally has 30–40 students and most graduate students teach two and some teach three classes each semester. Out-of-state fees are waived for teaching fellows and spouses. The state pays most of the teaching fellow’s share of social security. The only other deduction is for federal income tax.

Write for additional information and application forms.

Dr. John Ed Allen, Chairman
Department of Mathematics
North Texas State University
Denton, Texas 76203

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
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*According to resident status.

| MATHEMATICS AND STATISTICS | Applications due: 4/1/87 | Bachelor's by inst. | 1590 |
| T. A. Atchison, Chairman | Faculty; 23; Published 8 | Bachelor's by dept. | 18 |
| Graduate Students: full-time 5, full-time first year 3, part-time - | Master's by dept. | 10 |
| Teaching Assistantship (10:8) | 4725 | 9 | 541 | 6 | Teaching |

Texas A&M University, College Station 77843

| MATHEMATICS | Applications due: 3/1/87* | Bachelor's by inst. | 6230 |
| H. E. Lacey, Head | Faculty; 78; Published 85 | Bachelor's by dept. | 26 |
| Graduate Students: full-time 51; full-time first year 23; part-time 1 | Master's by dept. | 7 |
| Minority Fellowship (45:25) | 8100 | 12 | 750 | |
| University-wide Fellowship (37:37) | 9000-9600 | 12 | 750 | |
| Teaching Assistantship (45:20) | 9000-12000 | 12 | 750 | 20 | Teaching |
| Research Grants (3:2) | 9600 | 12 | | |
| Assistant Lecturer (6:6) | 9450-15000 | 10.5 | 750 | 20 | Teaching |

*First round offers.

| STATISTICS | Applications due: 5/1/87 | Bachelor's by inst. | 6230 |
| Larry J. Ringer, Interim Head | Faculty; 15; Published 15 | Bachelor's by dept. | 12 |
| Graduate Students: full-time 31; full-time first year 8; part-time 8 | Master's by dept. | 8 |
| Minority Fellowship (45:25) | 8100 | 12 | 750 | |
| University-wide Teaching Fellowship (37:37) | 9000-9600 | 12 | 750 | |
| Teaching Assistantship (30:10) | 7500-8100 | 12 | 750 | 20 | Teaching |
| Research Assistantship (4:2) | 8000-12000 | 12 | 750 | |
| Lecturer (6:0) | 12000-14000 | 12 | 750 | 27 | Teaching |

SOUTHERN METHODIST UNIVERSITY
Dallas, Texas

M.S. and Ph.D. — In Applied Mathematics, Numerical Analysis, and Scientific Computation

Particular strengths of the department include ordinary and partial differential equations, mathematical modeling, biomedical systems, asymptotic and perturbation methods, nonlinear waves, solitons, and various areas of numerical analysis such as nonlinear optimization, numerical bifurcation, numerical linear algebra, convection-diffusion problems, parameter estimation and identification, composite meshes and free-surface fluid problems. In addition, the mathematical software specialist L. F. Shampine has been appointed to the Betty Clements Chair in Applied Mathematics. Courses are also available in the departments of Computer Science, Operations Research, and Statistics.

Teaching assistantships are available, requiring the equivalent of one course per semester. The stipend for 1986-87 was $6,250 a year with the waiver of tuition and fees. Outstanding prospects are eligible for a Dean’s Award, $5,000 additional per academic year and a $3,000 summer research support. This results in a total stipend of $14,250.

For more information call (214) 692-2506 or write:
Graduate Director — Department of Mathematics — Southern Methodist University — Dallas, Texas 75275

1104
Texas A&M University
Department of Mathematics

Graduate Studies

The Department of Mathematics offers graduate studies leading to the M.S. and Ph.D. degrees in mathematics. Graduate students in mathematics can design their programs from a diverse set of courses in the following areas: algebra, applied analysis, functional analysis, mathematical physics, probability, and topology.

The Department of Mathematics has strong research groups in approximation theory, functional analysis, and probability theory. The recruitment of new faculty during the last five years has resulted in a significant upgrading of the research programs in these areas. Special augmentation stipends for graduate students of exceptional promise are available for students pursuing research in these areas.

The University has recently created within the Department the Center for Approximation Theory. The Center has become a focal point for research in approximation theory in this country, and, as such, is attracting many researchers from around the world. The Center provides unique opportunities for graduate students who are interested in approximation theory.

Financial Aid

Financial assistance is available on a competitive basis to all qualified applicants in the form of Graduate Assistantships awarded by the Department. Current stipends range from $750 to $1000 per month and are usually awarded for a 12 month period. Preference for Assistantships is given to those who complete their applications by March 1, 1987.

In addition, University fellowships are available on a competitive basis to highly qualified applicants. Individuals who wish to be considered for fellowships should have their applications completed by February 1, 1987.

Most advanced graduate students are supported as Assistant Lecturers with stipends ranging from $900 to $1030 per month for half-time appointments.

For additional information, address inquiries to:

Chairman, Graduate Studies Committee
Department of Mathematics
Texas A&M University
College Station, Texas 77843-3368
Texas Tech University, Lubbock 79409  

**MATHEMATICS**  
John T. White, Chairman  

Applications due: 4/15/87  
Faculty 45; Published 39  
Graduate Students: full-time 66; full-time first year 14; part-time –  

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</table>

Ph. D. (83/86) ANT 1, AFA 1, S 3, AM 1. Total: 6

University of Houston–University Park, Houston 77004  

**MATHEMATICS**  
Garret J. Etgen, Chairman  

Applications due: 2/15/87*  
Faculty 49; Published 34  
Graduate Students: full-time 40; full-time first year 11; part-time 28  

<table>
<thead>
<tr>
<th>TYPE OF ASSISTANCE</th>
<th>STIPEND</th>
<th>FEES</th>
<th>SERVICE REQUIRED</th>
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<td>Teaching Fellowship (36:20)</td>
<td>$6200-$7214</td>
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<td>Research Assistantship (2:2)</td>
<td>$6200-$6600</td>
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<td>Instructorship (1:--)</td>
<td>$8000-$12000</td>
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Teaching: 6; Research: 6  
Ph. D. (83/86) AFA 2, GT 1, AM 2. Total: 5

*Late applications considered if positions available.

University of Texas at Arlington 76019  

**MATHEMATICS**  
George Fix, Chairman  

Applications due: 4/15/87  
Faculty 38; Published 25  
Graduate Students: full-time 38; full-time first year 3; part-time 19  

<table>
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<td>Research Assistantship (3:3)</td>
<td>$8400-$9600</td>
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<td>40</td>
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</table>

Ph. D. (83/86) AFA 2, S 2, AM 2, Other 6. Total: 12

The University: Texas Tech University is located in Lubbock, Texas, a city of 200,000. Lubbock is in the South Plains of West Texas at an altitude of 3,250 feet. Dry, crisp air and sunny days throughout practically the entire year provide a healthful and invigorating climate. Texas Tech University is a multipurpose university and offers graduate work in most areas. A School of Medicine and a School of Law are housed on campus. Since 1952, approximately 1,650 doctorates have been awarded. The university enrolls 23,500 students with 3,200 graduate students.

The Department: The department offers graduate study in a broad range of areas, including applied mathematics, probability and statistics, analysis, algebra and topology leading to the M.S. and Ph.D. degrees. A special M.S. degree with emphasis in computer science and a M.A. degree designed for pre-college teachers are also offered. The department has 46 faculty members and 54 supported teaching assistants. Active research is carried out in such areas as solar power, pattern recognition and video tracking, flow in porous media, three-dimensional seismic interpretation, wave propagation, transport theory, numerical analysis, nonlinear systems and control theory, coding theory, several complex variables, statistics, topology, partial differential equations, geometric function theory, recursive function theory, and theoretical computer science. Sixty-eight Ph.D.'s have been awarded by the department since 1967.

Financial Aid: Teaching assistant stipends for the academic year 1987-88 are expected to range from $6650-$7150. Summer support is usually available for those who want it. The State of Texas pays most of the employee's share of social security. Out-of-State tuition is waived for teaching assistants; the cost of tuition and fees is approximately $250 per semester.

Contact:  
Dr. T. G. McLaughlin, Graduate Advisor  
Department of Mathematics  
Texas Tech University  
Lubbock, Texas 79409.
University of Texas at Austin 78712

MATHEMATICS

Applications due: 2/1/87

John D. Dollard, Chairman

Faculty 58; Published 40

Graduate Students: full-time 147; full-time first year 50; part-time 5

Teaching Fellowship (6:2) 10500 9 640 *
Teaching Assistantship (102:20) 6000-9000 9 640 6**
Research Assistantship (5:--) 6000-9000 9 640 20 Research

*Half the duties of teaching assistant.
**Recitation sections and related duties.

University of Texas at Dallas, Richardson 75080

MATHEMATICAL SCIENCES

Applications due: *

John W. Van Ness, Head

Faculty 10; Published 10

Graduate Students: full-time 28; full-time first year 7; part-time 43

Teaching Assistantship (23:--)

Research Assistantship (1:--)

University of Texas at El Paso 79968

MATHEMATICAL SCIENCES

Applications due: 4/15/87

V. K. Srinivasan, Chairman

Faculty 26; Published --

Graduate Students: full-time 19; full-time first year 14; part-time 3

Teaching Assistantship (15:5)

University of Texas at San Antonio 78285

MATHEMATICS, COMPUTER SCIENCE

Applications due: 12/1/86

J. P. Keating, Acting Division Director

Faculty 24; Published 11

Graduate Students: full-time --; full-time first year --; part-time --

Teaching Assistantship (5:--)

West Texas State University, Canyon 79016

MATHEMATICS AND PHYSICAL SCIENCES

Applications due: 12/1/86

Vaughn Nelson, Head

Faculty 16; Published 4

Graduate Students: full-time 4; full-time first year 1; part-time 5

Teaching Assistantship (4:4)

*For Texas residents.

THE UNIVERSITY OF TEXAS AT AUSTIN

Dodd Teaching Fellowship

Several Dodd Teaching Fellowships are available each year to graduate students new to UT Austin. They are renewable for one year upon (expected) superior performance. The stipend will be $10,500 for nine months beginning in September 1987; tuition is low but will not be waived. In addition to the large stipend, teaching duties are reduced compared to those of a standard teaching assistantship.

For further information and application materials write to:

Graduate Student Selection Committee
Mathematics Department
The University of Texas
Austin, Texas 78712

1107
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<tr>
<th>TYPE OF ASSISTANCE</th>
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Utah

Brigham Young University, Provo 84602

**MATHEMATICS**

Applications due: 7/87

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<tr>
<th>Teaching Fellowship*</th>
<th>1596-3285</th>
<th>8</th>
<th>**</th>
<th>10</th>
<th>Teaching</th>
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</thead>
</table>

| Teaching Assistantship (50:-) | 8625-8700 | 12 | 900 | 20 | Research, teaching |
| Research Assistantship* | 8625-8700 | 12 | 900 | 20 | Research, teaching |
| Scholarship (5-10,*** | † | 8 | ** | | |

*Currently under negotiation.

**No Figure not available at this time.

***No distinction made.

†Half tuition to full tuition.

University of Utah, Salt Lake City 84112

**MATHEMATICS**

Applications due: 3/15/87

| Teaching Fellowship (3:3) | 9075-9100 | 12 | 900 | 20 | Research, teaching |
| Teaching Assistantship (10:10) | 8625-8700 | 12 | 900 | 20 | Research, teaching |
| Research Assistantship (7:7) | 8625-8700 | 12 | 900 | 20 | Research |

Utah State University, Logan 84322

**APPLIED STATISTICS**

Applications due: 6/1/87

| Teaching Assistantship (3.5:3.5) | 4800 | 9 | * | 20 | Grading, consulting |

*About $1000 for ten credit hours.

Vermont

University of Vermont, Burlington 05405

**MATHEMATICS AND STATISTICS**

Applications due: 3/1/87

| Fellowship (14:-) | 6600 | 9 | 45 | 15-20 | Grading, teaching |

| Fellowship (14:-) | 6600 | 9 | 45 | 15-20 | Grading, teaching |
Virginia

College of William and Mary, Williamsburg 23185

COMPUTER SCIENCE
Richard H. Prosl, Chairman
Applications due: 3/1/87
Graduate Students: full-time 24; full-time first year 10; part-time 60

Teaching Assistantship (11:-) 7000 12 20*
Research Assistantship (3:-) 7000 12 20*

George Mason University, Fairfax 22180

MATHEMATICAL SCIENCES
Stephen H. Saperstone, Acting Chair
Applications due: 3/1/87
Graduate Students: full-time 6; full-time first year 3; part-time 30

Teaching Assistantship (3:2) 4500-5000 9 1260 6 Teaching

James Madison University, Harrisonburg 22807

MATHEMATICS AND COMPUTER SCIENCE
Diane M. Spresser, Head
Applications due: 4/30/87*
Graduate Students: full-time 8; full-time first year 7; part-time 3

Teaching Assistantship (7:3) 6000 9 20 Teaching, or lab assistants

*To receive priority.

Utah State University
Graduate Program in Mathematics

The mathematics department offers flexible programs of study leading to the Master’s and Doctor of Philosophy degrees. The PhD program in mathematical sciences features the following options:

Pure and Applied Mathematics Option
The Department offers graduate study in areas including applied mathematics, differential equations, numerical analysis, analysis, optimization, topology, geometry, matrix theory, algebra, and probability.

Interdisciplinary Mathematics Option
This program offers a flexible course of study which combines mathematics with an area of application.

College Teaching Option
This program trains teachers for two and four-year colleges. The student obtains a broad background in advanced mathematics, together with experience in teaching undergraduate mathematics.

Teaching assistantships are readily available for interested and qualified students. Assistantships will range from $7500-$8500.

Utah State University is located in Logan, a city of about 30,000 residents. Logan is about 80 miles north of Salt Lake City in the picturesque Wasatch Mountain Range. The University's location offers many recreational and cultural opportunities to students. There are about 12,000 students including about 2500 full-time graduate students.

For more information on the graduate programs and faculty research interests, contact the:

Graduate Recruitment Chairman
Department of Mathematics
Utah State University
Logan, Utah 84322-4125
(801) 750-2809

1109
Old Dominion University, Norfolk 23508

MATHEMATICS

Applications due: 5/1/87

John Tweed, Chairman

Faculty 29; Published 21

Graduate Students: full-time 33; full-time first year 10; part-time 20

Fellowship (7-5) 5000-10000 9
Teaching Assistantship (15.5) 5000-7000 9 20 Teaching, grading
Research Assistantship (3:1) 5000-8000 9 20 Research
Summer Teaching/Research (10:-) 2000

University of Virginia, Charlottesville 22903

APPLIED MATHEMATICS

Applications due: 2/1/87*

James M. Ortega, Chairman

Faculty 12; Published -

Graduate Students: full-time 20; full-time first year 8; part-time 0

Teaching Assistantship (8:8) 8500-10000 9 0-2500 20
Research Assistantship (8-10:2-4) 8500-10000 9 0-2500 20

*For initial round of offers.

THE DEPARTMENT OF MATHEMATICAL SCIENCES
OLD DOMINION UNIVERSITY

offers M.S. and Ph.D. programs in COMPUTATIONAL AND APPLIED MATHEMATICS. Emphasis areas include analytical and computational methods, numerical analysis, statistics, modeling, and applications (atmospheric sciences, oceanography, fluid and solid mechanics, ecosystem studies, economics and operations research).

ODU is a public, state-supported institution located in Norfolk, VA, heart of the historic Tidewater region. Scientific facilities of the region include the NASA-Langley Research Center, the Institute for Computer Applications in Science and Engineering (ICASE), and the Atlantic Marine Center of the National Oceanographic and Atmospheric Administration (NOAA).

Financial aid is available in the form of research and teaching assistantships and fellowships with stipends up to $10,000 per academic year.

Further information and application forms may be obtained by writing to:

GRADUATE PROGRAM DIRECTOR — Department of Mathematical Sciences
Old Dominion University — Norfolk, VA 23508

UNIVERSITY OF VIRGINIA

GRADUATE STUDIES IN APPLIED MATHEMATICS

The Department of Applied Mathematics offers masters and Ph.D. degrees in Applied Mathematics. The research strengths in the department are in the areas of scientific computing and numerical analysis with particular emphasis on parallel computing, in theoretical and computational fluid and solid mechanics, and in control theory. The Department has a close association with Computer Science and the location of the Department within the School of Engineering and Applied Science allows for programs of study which combine courses in Applied Mathematics with courses in Computer Science and in Engineering. Research and teaching assistantships are available, with possible tuition fellowships. For information write:

Department of Applied Mathematics
University of Virginia, Thornton Hall, Charlottesville, VA 22903

1110
Virginia Commonwealth University, Richmond 23284

**MATHEMATICAL SCIENCES**
- Applications due: 6/30/87
- Bachelor's by inst.: 888
- Bachelor's by dept.: 37
- Master's by dept.: 10
- **Teaching Assistantship (20:15)**
  - 6750-8000
  - 9 hours
  - 15
  - Varies

Virginia Polytechnic Institute and State University, Blacksburg 24061

**COMPUTER SCIENCE**
- Applications due: 3/1/87
- Bachelor's by inst.: 3689
- Bachelor's by dept.: 166
- Master's by dept.: 69
- **Fellowship (1:-)**
  - 8685-8865
  - 9
  - 2100
  - 20
  - Research

**MATHEMATICS**
- Applications due: 3/15/87
- Faculty 71; Published 47
- Bachelor's by inst.: 3689
- Bachelor's by dept.: 49
- Master's by dept.: 18
- **Teaching Assistantship (64:20)**
  - 8325-8865
  - 9
  - 0-2187
  - 20

Eastern Washington University, Cheney 99004

**COMPUTER SCIENCE**
- Applications due: 4/1/87
- Bachelor's by inst.: 1155
- Bachelor's by dept.: 46
- Master's by dept.: 1
- **Fellowship (1:-)**
  - 4500
  - 9

**MATHEMATICS**
- Applications due: 3/31/87
- Faculty 14; Published 3
- Bachelor's by inst.: 1155
- Bachelor's by dept.: 30
- Master's by dept.: 2
- **Teaching Assistantship (2:3)**
  - 5304
  - 9

University of Washington, Seattle 98195

**MATHEMATICS**
- Applications due: 2/15/87
- Bachelor's by inst.: 4803
- Bachelor's by dept.: 129
- Master's by dept.: 10
- **Fellowship (2:2)**
  - 2136
  - 3

**STATISTICS**
- Applications due: 4/15/87
- Bachelor's by inst.: 4803
- Bachelor's by dept.: 5
- Master's by dept.: 5
- **Teaching Assistantship (16:6)**
  - 936-1046
  - 11

Washington
Washington State University, Pullman 99164

**MATHMATICS**

Michael J. Kallaher, Chairman

<table>
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<th>Applications due:</th>
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<td>Research Assistantship (2:1)</td>
<td>6228-6660</td>
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**Western Washington University, Bellingham 98225**

**COMPUTER SCIENCE**

James L. Johnson, Chairman

<table>
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<th>Master's by dept.</th>
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<td>4/1/87</td>
<td>1729</td>
<td>86</td>
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| Teaching Assistantship (5:2) | 5400 | 9 | 1500-1800 | 20 | Varies |
| Other (2:2) | 5400 | 9 | 1500-1800 | 20 | Projects |

**MATHMATICS**

Thomas T. Read, Chairman

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<th>Master's by dept.</th>
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<td>3/1/87</td>
<td>1729</td>
<td>74</td>
<td>6</td>
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</table>

| Teaching Assistantship (18:10)* | 5441* | 9 | 1710* | 3-5 | Teaching |

*1986-1987 figures.

**West Virginia**

Marshall University, Huntington 25701

**MATHMATICS**

C. V. Peele, Chairman

<table>
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<th>Master's by dept.</th>
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<td>4/30/87</td>
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| Teaching Assistantship (5:2) | 3400 | 9 | 282 | 6 | Teaching |
| Tutor (3:2) | 2500 | 9 | 282 | 20 | Tutor, grading |

West Virginia University, Morgantown 26506

**MATHMATICS**

Alphonse Baartmans, Chairman

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<td>2750</td>
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</table>

| Teaching Assistantship (24:-) | 5400 | 9 | 45 | 15 | Grading, teaching |
| Research Assistantship (3:-) | 5400 | 9 | 45 | 15 | Research |

**STATISTICS AND COMPUTER SCIENCE**

Donald F. Butcher, Chairman

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<tr>
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<th>Master's by dept.</th>
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<td>4/15/87</td>
<td>2750</td>
<td>69</td>
<td>16</td>
</tr>
</tbody>
</table>

| Teaching Assistantship (16:-) | 6507 | 9 | 14 | Teaching |
| Research Assistantship (7:-) | 7200-9600 | 12 | 20 | Research |

---

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**WRITE:** Graduate Coordinator, Department of Mathematics
Eastern Washington University, Cheney, WA, 99004

$8500+ GRADUATE STIPEND

1112
### Wisconsin

**Marquette University, Milwaukee 53233**

**MATHEMATICS**

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>Stipend (Total no.: no. anticipated)</th>
<th>Fees (paid by student)</th>
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<td>Fellowship (1:1)</td>
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<td>3204 15 Grading, research</td>
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<td>Research Assistantship (3:3)</td>
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**University of Wisconsin--Eau Claire 54701**

**MATHEMATICS**

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<td>250-500/sem.</td>
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<td>915/sem. 20 *</td>
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*Assist with grading, research, and miscellaneous.

**University of Wisconsin, Madison 53706**

**MATHEMATICS**

<table>
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<td>3045 9-12 *</td>
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<td>Teaching Assistantship (184-35)</td>
<td>9939–11372</td>
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<td>2480 8-25 Teaching</td>
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<td>Research Assistantship (3/sem.**)</td>
<td>10182*</td>
<td>12</td>
<td>2256*</td>
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*Available for Fall semester; not available to first year students.

**University of Wisconsin–Milwaukee 53201**

**MATHEMATICAL SCIENCES**

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<th>Type of Assistance</th>
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*Rates subject to possible increase.

**University of Wisconsin–Oshkosh 54901**

**MATHEMATICS**

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<td>Research Assistantship (1:1)</td>
<td>5000</td>
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<td>1000 20</td>
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1113
University of Wyoming, Laramie 82071

MATHEMATICS
Robert Mena, Head

Applications due: 3/1/87
Faculty 31; Published 23
Graduate Students: full-time 35, full-time first year 15; part-time 2

Teaching Assistantship (24:6) 6000-11000 9-12 Waived 18-24 Teaching
Research Assistantship (6:2) 6000-11000 9-12 Waived 18-24 Research

Applications due: 3/1/87
Faculty 31; Published 23
Graduate Students: full-time 35, full-time first year 15; part-time 2

Teaching Assistantship (24:6) 6000-11000 9-12 Waived 18-24 Teaching
Research Assistantship (6:2) 6000-11000 9-12 Waived 18-24 Research

Applications due: 2/15/87
Faculty 9; Published 6
Graduate Students: full-time 23, full-time first year 2; part-time 3

Teaching Assistantship (7:-) 2970-5940 9 9-18 Teaching, grading
Research Assistantship (2-3:-) 2970-5940 9 9-18 Research

STATISTICS
Robert S. Cochran, Chairman

Applications due: 2/15/87
Faculty 9; Published 6
Graduate Students: full-time 23, full-time first year 2; part-time 3

Teaching Assistantship (7:-) 2970-5940 9 9-18 Teaching, grading
Research Assistantship (2-3:-) 2970-5940 9 9-18 Research

Applications due: 2/15/87
Faculty 9; Published 6
Graduate Students: full-time 23, full-time first year 2; part-time 3

Teaching Assistantship (7:-) 2970-5940 9 9-18 Teaching, grading
Research Assistantship (2-3:-) 2970-5940 9 9-18 Research

Dalhousie University, Halifax, Nova Scotia B3H 4H8

MATHEMATICS, STATISTICS, AND COMPUTING SCIENCE
Ken A. Dunn, Chairman

Applications due: 8/1/87
Faculty 41; Published 41
Graduate Students: full-time 25; full-time first year 7; part-time 3

Fellowship (5:*) 11000 12
Teaching Fellowship (4:*) 11000 12 10 Tutorial
Research Assistantship (2:2) 12600 12

*Total of six available between the fellowship and teaching fellowship.

McGill University, Montréal, Québec H3A 2K6

MATHEMATICS AND STATISTICS
Michael Herschorn, Chairman

Applications due: 2/1/87*
Faculty 45; Published 30
Graduate Students: full-time 45; full-time first year 17; part-time 0

Fellowship (5:*) 11000 12
Teaching Fellowship (4:*) 11000 12 10 Tutorial
Research Assistantship (2:2) 12600 12

*Loose deadline for assistantships.

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF WYOMING

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Laramie, WY 82071

1114
Memorial University of Newfoundland, St. John's, Newfoundland A1C 5S7

**MATHMATICS AND STATISTICS**

B. Shawyer, Head

Fellowship * 6000 12 ** 16
Teaching Assistantship* 2000
Research Assistantship* 3000

*No fixed number.

**Masters: $972; Ph.D.: $1215.

Queen's University, Kingston, Ontario K7L 3N6

**MATHMATICS AND STATISTICS**

L. L. Campbell, Head

University Scholarship (-:10) 1773.34-6500 12
Research/Teaching Assistantship (-:20) 2307.50-9700 8-12 * 0-5-10 Teaching, grading, research
Q.G.A. (-:11) 1000-2000 12
NSERC, Italian, Commonwealth (-:7) 4000-11600 4-12

*Canadian and landed immigrants: approximately $1513.40 per year; foreign students: approximately $6833.40 per year.

Simon Fraser University, Burnaby, British Columbia V5A 1S6

**MATHMATICS AND STATISTICS**

A. R. Freedman, Chairman

Fellowship (-:1) 11100 12 176-667/sem.
Teaching Assistantship (100;100) 3100 4 176-667/sem. 20 Teaching, grading
Research Assistantship (-:1) 3500 4 176-667/sem. 20 Research
Stipend (8:0) 2400-2900 4 176-667/sem.
Research Fellowship (4:4) 3000 4 176-667/sem.

*One month prior to start of the semester.

University of Alberta, Edmonton, Alberta T6G 2G1

**MATHMATICS**

H. I. Freedman, Acting Chairman

Fellowship (8:unlimited) 8364-9604 9 1068 12 Grading, lab, teaching
NSERC Summer Support (-:1) 2800 3

*The University of Alberta offers graduate programs leading to the M.Sc. degree with thesis, the M.Sc. non-thesis degree and the Ph.D. degree in most branches of Pure and Applied Mathematics represented by its 60 member Department of Mathematics. Opportunities for studies of an interdisciplinary nature are provided in co-operation with other departments, including the Departments of Statistics and Applied Probability, Computing Science and Physics. Teaching Assistantships are available carrying a stipend between $8364 and $6904 for 8 months. In addition summer support of about $2650 is generally available.

The University of Alberta, Canada's third largest University, is located in Edmonton, Alberta's capital city of 550,000 people, providing a wide variety of cultural and recreational attractions.

Inquiries are invited and should be addressed to:

The Graduate Committee, Department of Mathematics
The University of Alberta, Edmonton, Alberta, Canada T6G 2G1

1115
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<td>$1750 for first year, reduced for subsequent years.</td>
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Department of Statistics & Applied Probability
Graduate Studies
University of Alberta

Programmes and Facilities: The Department of Statistics and Applied Probability offers graduate programs leading to the M.Sc. degree with thesis, the M.Sc. non-thesis degree and the Ph.D. degree. The Mathematics and Statistics Library which is located in the same building as the Department, contains over 30,000 books and subscribes to 400 journals. The University of Alberta has one of the largest computer facilities in Canada operating an AMDAHL 5870 with 32 million bytes of memory under the Michigan Terminal System and with extensive auxiliary equipment and services.

Financial Assistance: Assistantships are available, carrying stipends of from $7,700 to $9,200 for 8 months. Summer support of about $2,000 for graduate students on thesis programs is generally available. Senior doctoral candidates may apply for a Dissertation Fellowship ($11,500), an Izaak Walton Killam Memorial Scholarship ($12,000) and other awards.

Inquiries and applications are invited and should be addressed to:

The Graduate Committee Chairman
Department of Statistics and Applied Probability
415 Central Academic Building
University of Alberta
Edmonton, Alberta
Canada
T6G 2G1
University of Calgary, Calgary, Alberta T2N 1N4

MATHEMATICS AND STATISTICS
M. G. Stone, Chairman

Applications due: * Bachelor's by inst. 1275
Faculty 41; Published 40 Bachelor's by dept. 17
Graduate Students: full-time 29, full-time first year 17, part-time 3 Master's by dept. 3
Ph. D. (83/86) GT 3, S 1, Other 3. Total: 7

Teaching Assistantship (44-52:30) 4293-5037
Research Assistantship (15:2) 3233
Scholarship (open:open) 9000-12000

*Full-time applicants are automatically considered.
**For 8 months of support.
***Varies with type.
†Depends on type of scholarship.

University of Manitoba, Winnipeg, Manitoba R3T 2N2

MATHEMATICS AND ASTRONOMY
Nathan S. Mendelsohn, Head

Applications due: 2/1/87 Bachelor's by inst. 4107
Faculty 29; Published 20 Bachelor's by dept. 8
Graduate Students: full-time 9, full-time first year 2; part-time 2 Master's by dept. 1
Ph. D. (83/86) AFA 2, AM 1. Total: 3

Fellowship (2:-) 7500-11600
Teaching Assistantship (4:-) 2500-10000

University of New Brunswick, Fredericton, New Brunswick E3B 5A3

MATHEMATICS AND STATISTICS
Stefan Rinco, Chairman

Applications due: 2/28/87 Bachelor's by dept. 6
Faculty 26; Published 19 Master's by dept. 2
Graduate Students: full-time 6, full-time first year 3; part-time 2 Ph. D. (83/86) AM 2. Total: 2
Teaching Assistantship (2:2) 8000-10000
Research Assistantship (4:2) 10000-12000

*$1600-$2200 plus $1700 non-Canadian differential fees.

THE UNIVERSITY OF CALGARY

GRADUATE STUDIES IN MATHEMATICS AND STATISTICS

Research Areas:


Teaching/Research Assistantships: $8466-$10,074 per 8 months. Summer support of approx. $4293 per 4 months is generally available.

For further information write to: Director of Graduate Studies, Dept. of Maths. & Stats., University of Calgary, 2500 University Drive N.W., Calgary, Alberta, CANADA T2N 1N4.
University of Ottawa, Ottawa, Ontario K1N 9B4

**COMPUTER SCIENCE**

- **Teaching Assistantship** (15:7) 4000 12 * 10 Grading, teaching
- **Research Assistantship** (10:7) 8000 12 * 15-30 Research

*Resident: $972 per year; visa student: $8436 per year.

*Figures are per semester. Commitments are made for a semester at a time. Form and amount of support may change depending on student's performance and availability of funds.

University of Regina, Regina, Saskatchewan S4S 0A2

**COMPUTER SCIENCE**

- **Teaching Fellowship** (1:1) 6700 8 894 12 Teaching
- **Teaching Assistantship** (5:5) 3320 8 894 12 Grading

**MATHEMATICS**

- **Teaching Fellowship** 3538-4168** 4 596 16 Teaching
- **Teaching Assistantship** 3400-3797** 4 596 12 Grading, teaching
- **Scholarship** 3100-3822** 4 596

*Figures are per semester. Commitments are made for a semester at a time. Form and amount of support may change depending on student's performance and availability of funds.

University of Waterloo, Waterloo, Ontario N2L 3G1

**APPLIED MATHEMATICS**

- **Teaching Assistantship** (30:6) 5160-6800 12 * 5-10 Grading, teaching
- **Research Assistantship** (25:8) 2000-9000 12 * 2-10 Research
- **Bursaries (4-)** 500-1000 4-12 *

*Canadian or landed immigrants: $1587 per year; visa students $7803 per year.

**COMBINATORICS AND OPTIMIZATION**

- **Teaching Assistantship** (16:6) 5160-6800 12 * 5-10 Grading, teaching
- **Research Assistantship** (10:4) 3600-9800 12 * 2-10 Research
- **NSERC Scholarship (4-)** 11600 12 *
- **Bursaries (3-)** 500-1000 4-12 *

*Canadian or landed immigrants: $1587 per year; visa students $7803 per year.

**COMPUTER SCIENCE**

- **Teaching Assistantship** (285:40) 5366-7155 12 * 5-10 Grading, teaching
- **Research Assistantship** (69:28) 4345-5345 12 * 2-10 Research
- **Bursaries (4-)** 500-1000 4-12 *

*Canadian or landed immigrants: $1587 per year; visa students $7803 per year.

**PURE MATHEMATICS**

- **Teaching Assistantship** (13:2) 3400-10200 12 * 5-10 Grading, teaching
- **Research Assistantship** (10:3) 5000-7000 12 * 2-10 Research
- **NSERC Scholarship (5:1)** 11600 12 *
- **Bursaries (5:1)** 500-1000 4-12 *

*Canadian or landed immigrants: $1587 per year; visa students $7803 per year.

1118
STATISTICS AND ACTUARIAL SCIENCE
John D. Kalbfleisch, Chairman
Graduate Students: full-time 33; full-time first year 7; part-time 4

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<th>SERVICE REQUIRED</th>
<th>DEGREES AWARDED</th>
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<td>Bursaries (-)</td>
<td>500–1000</td>
<td>4–12</td>
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Applications due: 4/15/87
Faculty 32; Published 30
Bachelor’s by inst. 3378
Bachelor’s by dept. 92
Master’s by dept. 5
Ph. D. (83/86) S 6. Total: 6

Applications due: 4/15/87
Faculty 32; Published 30
Bachelor’s by inst. 3378
Bachelor’s by dept. 92
Master’s by dept. 5
Ph. D. (83/86) S 6. Total: 6

*Canadian or landed immigrants: $1587 per year; visa students $7803 per year.

University of Western Ontario, London, Ontario N6A 5B7

MATHEMATICS
D. Borwein, Head
Graduate Students: full-time 11; full-time first year 8; part-time 0

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Applications due: 2/15/87
Faculty 25; Published 21
Bachelor’s by inst. 5133
Bachelor’s by dept. 67
Master’s by dept. 0
Ph. D. (83/86) ANT 1, GT 3. Total: 4

Applications due: 3/31/87
Faculty 10; Published 10
Bachelor’s by inst. 5133
Bachelor’s by dept. 75
Ph. D. (83/86) S 4. Total: 4

*Students on a student visa are required to pay $2650 per term.

$1400 for Canadian and landed immigrants and $9000 for international students.
Critical, Historical, or Expository Theses

Departments supplying the information published on the preceding pages were asked the following question: Will your department accept a critical, historical or expository thesis of sufficiently high quality for the Ph.D. degree? D.A. degree? or other degree? Affirmative responses to this question are listed below.

Alabama
Univ of Alabama, Tuscaloosa
Management Science and Statistics Ph.D.
Mathematics Ed.S.

Georgia
Emory Univ
Statistics and Biometry Ph.D.

Idaho
Idaho State Univ Mathematics D.A.

Illinois
Illinois State Univ Mathematics D.A.

Mississippi
Univ of Mississippi
Mathematics Ph.D.

Missouri
St. Louis Univ
Mathematics and Computer Science Ph.D.
Washington Univ
Computer Science D.Sc.

Montana
Univ of Montana
Mathematical Sciences Ph.D.

Nebraska
Univ of Nebraska, Lincoln
Computer Science Ph.D.

New Hampshire
Dartmouth Coll
Mathematics and Computer Science Ph.D.

New Jersey
Rutgers Univ
Statistics Ph.D.

New Mexico
Univ of New Mexico
Mathematics Ph.D.

New York
Cornell Univ
Mathematics Ph.D.
Rensselaer Polytech Inst
Mathematical Sciences Ph.D.
Syracuse Univ
Mathematics Ph.D.
Univ of Rochester
Computer Science Ph.D.

Connecticut
Yale Univ
Statistics Ph.D.

Connecticut
Yale Univ
Statistics Ph.D.

Connecticut
Yale Univ
Statistics Ph.D.

Florida
Florida State Univ
Statistics Ph.D.
Univ of Florida
Industrial and Systems Engineering Ph.D.
Univ of Miami
Mathematics and Computer Science D.A.

* Some dissertation supervisors will accept such dissertations.
North Dakota
North Dakota State Univ
Mathematical Sciences Ph.D.

Ohio
Ohio State Univ
Statistics Ph.D.
Ohio Univ
Mathematics Ph.D.
Univ of Cincinnati
Biostatistics Ph.D.

Oklahoma
Oklahoma State Univ
Computing and Information Sciences Ed.D.
Univ of Oklahoma
Biostatistics and Epidemiology Ph.D.**
Mathematics Ph.D.

Pennsylvania
Carnegie-Mellon Univ
Mathematics D.A.
Pennsylvania State Univ
Mathematics Ph.D., D. Ed.
Temple Univ
Mathematics Ph.D.

Tennessee
Memphis State Univ
Mathematical Sciences Ph.D.

Texas
North Texas State Univ
Mathematics Ed.D.
Univ of Texas, Arlington
Mathematics Ph.D.

Utah
Utah State Univ
Mathematics Ph.D.

Virginia
Coll of William and Mary
Computer Science Ph.D.

Washington
Univ of Washington
Statistics Ph.D.
Washington State Univ
Mathematics Ph.D., D.A.

Wisconsin
Marquette Univ
Mathematics Ph.D.
Univ of Wisconsin, Madison
Mathematics Ph.D.
Statistics Ph.D.

Wyoming
Univ of Wyoming
Mathematics Ph.D.
Statistics Ph.D.

Canada
Univ of British Columbia
Computer Science Ph.D.

** A moratorium has been placed on doctorate students for the present time.
Postdoctoral Research Fellowships and/or Instructorships 1987-1988

Postdoctoral Research Fellowships and/or Instructorships available through academic departments 1987-1988 are listed below. This data was collected from responses to a new question on the “Assistantships and Fellowships in the Mathematical Sciences 1987–1988” form. The first number refers to the total number in the department. The second number following the colon is the number available for 1987-1988. An asterisk is used to indicate that “no information was supplied” by the department.

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AMS Membership Information

The American Mathematical Society is a nonprofit organization which has served the mathematical community for almost 100 years. With an express goal of furthering the interests of mathematical scholarship and research, the Society is responsive to the needs of educators, researchers, and students through its wide range of activities.

Membership privileges include free subscriptions to the Notices of the AMS, an information journal published eight times a year, and the Bulletin of the AMS, a quarterly journal that announces current research developments and contains in-depth book reviews and expository articles on contemporary mathematical research. In addition, members receive discounts of 40% on most AMS publications and reduced registration fees at AMS national and sectional meetings.

The following show some of the reasons why the AMS provides the information and resources needed by professional mathematicians.

- **AMS is a nonprofit society.** Known for its concern with fundamental research in both pure and applied mathematics, the Society is dedicated to the support and well-being of the profession.

- **AMS is a publisher.** In order to promote scholarship, the communication of ideas is essential and the Society, through its numerous journals and established book series, provides ways for mathematicians to access information.

- **AMS is an organizer.** Through its two national and eight sectional meetings held each year and the numerous research conferences organized by the Society, mathematicians have the opportunity to confer with colleagues and exchange ideas.

- **AMS is a source of information.** For many years, the Society has provided the mathematical community with reviews of the current mathematical literature through Mathematical Reviews and more recently has incorporated this information into MathSci, a database for quick and easy online bibliographic searching.

- **AMS is a coordinator for professional opportunities.** The Society publishes information annually on the state of the profession, including salary surveys and statistics on Ph.D.’s conferred and faculty mobility. Employment opportunities are listed in the two journals, Employment Information in the Mathematical Sciences and Notices of the AMS, and the Employment Register at the Annual Meeting actually schedules employment interviews.

- **AMS is a public service organization.** Through its many committees, the Society reviews the status of the profession and develops policies and programs that will best serve the mathematical community. One effort of current interest is the establishment, along with SIAM and MAA, of a liaison in Washington to help promote the public image of mathematics and to develop funding for mathematical research and education.

To apply for membership, simply complete the membership application on the following page, and return it along with your payment.
Please read the reverse side of this form to determine what membership category you are eligible for. Then fill out this application and return it as soon as possible. Your name will be added to our mailing lists upon our receipt of your completed application, and payment for member dues.

Subscriptions to the Notices and the Bulletin (New Series) are included as part of your membership.

Please indicate below the way your name should appear in the Combined Membership List.

If formerly a member of AMS, please indicate dates.

Check here if you are now a member of either MAA or SIAM.

Degrees, with institutions and dates.

Present position.

Firm or institution.

Fields of Interest (choose five from the list at right)

If you wish to be on the mailing lists to receive information about publications in fields of mathematics in which you have an interest, please consult the list of major headings of the 1980 Mathematics Subject Classification below. Select no more than five category numbers and fill in the numbers where indicated on the left. These categories will be added to your computer record so that you will be informed of new publications or special sales in the fields you have indicated.

Prepayment Methods and Mailing Addresses

Send checks, money orders, UNESCO coupons to American Mathematical Society, P.O. Box 1571, Annex Station, Providence, RI 02901-1571.

To use VISA or MasterCard, fill in information requested and mail to American Mathematical Society, P.O. Box 6248, Providence, RI 02940.

For Foreign Bank Transfers: The name and address of the AMS bank is Rhode Island Hospital Trust National Bank, Account #000-753-111, One Hospital Trust Plaza, Providence, RI 02903, U.S.A.

VISA O MasterCard O

Signature

Application for Membership 1987

Date ........................................... 19 ..............

Fields of Interest

If you wish to be on the mailing lists to receive information about publications in fields of mathematics in which you have an interest, please consult the list of major headings of the 1980 Mathematics Subject Classification below. Select no more than five category numbers and fill in the numbers where indicated on the left. These categories will be added to your computer record so that you will be informed of new publications or special sales in the fields you have indicated.

00 General
01 History and biography
03 Mathematical logic and foundations
04 Set theory
05 Combinatorics
06 Order, lattices, ordered algebraic structures
08 General mathematical systems
11 Number theory
12 Field theory and polynomials
13 Commutative rings and algebras
14 Algebraic geometry
15 Linear and multilinear algebra; matrix theory
16 Associative rings and algebras
17 Nonassociative rings and algebras
18 Category theory, homological algebra
19 K-theory
20 Group theory and generalizations
22 Topological groups, Lie groups
26 Real functions
28 Measure and integration
30 Functions of a complex variable
31 Potential theory
32 Several complex variables and analytic spaces
33 Special functions
34 Ordinary differential equations
35 Partial differential equations
39 Finite differences and functional equations
40 Sequences, series, summability
41 Approximations and expansions
42 Fourier analysis
43 Abstract harmonic analysis
44 Integral transforms, operational calculus
45 Integral equations
46 Functional analysis
47 Operator theory
49 Calculus of variations and optimal control; optimization
51 Geometry
52 Convex sets and related geometric topics
53 Differential geometry
54 General topology
55 Algebraic topology
57 Manifolds and cell complexes
58 Global analysis, analysis on manifolds
60 Probability theory and stochastic processes
62 Statistics
65 Numerical analysis
68 Computer science
70 Mechanics of particles and systems
73 Mechanics of solids
76 Fluid mechanics
78 Optics, electromagnetic theory
80 Classical thermodynamics, heat transfer
81 Quantum mechanics
82 Statistical physics, structure of matter
83 Relativity
85 Astronomy and astrophysics
86 Geophysics
90 Economics, operations research, programming, games
92 Biology and behavioral sciences
93 Systems theory: control
94 Information and communication, circuits

M7NO
Membership Categories

Please read the following to determine what membership category you are eligible for, and then indicate below the category for which you are applying.

For ordinary members whose annual professional income is below $26,000, the dues are $64; for those whose annual professional income is $26,000 or more, the dues are $84.

For a joint family membership, one pays ordinary dues, based on his or her income, and the other pays ordinary dues based on his or her income, less $20. (Only the member paying full dues will receive the Notices and the Bulletin as a privilege of membership, but both members will be accorded all other privileges of membership.)

Minimum dues for contributing members are $126.

For either students or unemployed individuals, dues are $21, and annual verification is required.

The annual dues for reciprocity members who reside outside the U.S. and Canada are $42. To be eligible for this classification, members must belong to one of those foreign societies with which the AMS has established a reciprocity agreement, and annual verification is required. Reciprocity members who reside in the U.S. or Canada must pay ordinary member dues ($64 or $84).

The annual dues for external members, those who reside in developing counties which do not have any mathematical society, are $45.

Members can purchase a multi-year membership by prepaying their current dues rate for either two, three, four or five years. This option is not available to either unemployed or student members.

1987 Dues Schedule

For any category of membership where two dues prices are given, the higher one is to be paid by persons whose annual professional income is $26,000 or more.

Ordinary member ........................................ $64  $84
Joint family member (full rate) .......................... $64  $84
Joint family member (reduced rate) ....................... $44  $64
Contributing member (minimum $126) ..................
Student member (please verify)* ........................ $21
Unemployed member (please verify)* .................... $21
Reciprocity member (please verify)* .................... $42  $64  $84
External member .......................................... $45
Multi-year membership ................................. $........ for ....... years

1 Student Verification (sign below)

I am a full-time student at ...................................................... currently working toward a degree.

2 Unemployed Verification (sign below) I am currently unemployed and actively seeking employment. My unemployment status is not a result of voluntary resignation or of retirement from my last position.

3 Reciprocity Membership Verification (sign below) I am currently a member of the society indicated on the right and am therefore eligible for reciprocity membership.

Reciprocating Societies

- Allahabad Mathematical Society
- Asociacion Matematica Española
- Australian Mathematical Society
- Berliner Mathematische Gesellschaft e.V.
- Calcutta Mathematical Society
- Dansk Matematik Forening
- Deutsche Mathematiker-Vereinigung e.V.
- Edinburgh Mathematical Society
- Gesellschaft für Angewandte Mathematik und Mechanik
- Glasgow Mathematical Association
- Indian Mathematical Society
- Iranian Mathematical Society
- Islenzka Stærfaðafélagid
- Israel Mathematical Union
- Korean Mathematical Society
- London Mathematical Society
- Malaysian Mathematical Society
- Mathematical Society of Japan
- Mathematical Society of the Philippines
- Mathematical Society of the Republic of China
- New Zealand Mathematical Society
- Nigerian Mathematical Society
- Norsk Matematik Forening
- Österreichische Mathematische Gesellschaft
- Polskie Towarzystwo Matematyczne
- Punjab Mathematical Society
- Real Sociedad Matemática Española
- Sociedad Colombiana de Matemática
- Sociedad de Matemática de Chile
- Sociedad Matemática de la República Dominicana
- Sociedad Matemática Mexicana
- Sociedade Brasileira de Matemática
- Sociedade Brasileira de Matemática Aplicada e Computacional
- Sociedade Paranaense de Matemática
- Sociedade Portuguesa de Matemática
- Societat Catalana de Ciencies Físiques, Químiques i Matemàtiques
- Société de Mathématiques Appliquées et Industrielles
- Société Mathématique de Belgique
- Société Mathématique de France
- Société Mathématique Suisse
- Southeast Asian Mathematical Society
- Suomen Matemaattinen Yhdistys
- Svenska Matematikersamfundet
- Union Matemática Argentina
- Unione Matematica Italiana
- Vijñana Parishad of India
- Wiskundig Genootschap

Signature
Stipends for Study and Travel

Graduate Support

**American Association for the Advancement of Science. Summer Fellowship.** Provides support for up to twenty outstanding graduate students in the social and natural sciences and engineering as intern reporters, researchers, and production assistants in the mass media for 10 weeks during the year. (Exceptional undergraduate or postdoctoral students will also be considered.) Fellows will work for radio and television stations, newspapers and magazines and will have their travel expenses and stipends paid by the AAAS. Fellows will have the opportunity to: observe and participate in the process by which events and ideas become news; improve their communication skills by teaming to describe complex technical subjects in a manner understandable by the public; and increase their understanding of editorial decision-making and the manner in which information is effectively disseminated. Each fellow will: attend an orientation and evaluation session in Washington, D.C.; begin the internship in mid-June; and submit an interim and final report to AAAS to help evaluate the program. Interested students should write for more information and application procedures to: Coordinator, Mass Media Science and Engineering Fellows Program, American Association for the Advancement of Science, 1333 H Street, N.W., 10th Floor, Washington, D.C. 20005. Application deadline will be about February 1.

**American Society for Engineering Education. ONR Graduate Fellowship Program.** About 45 three-year fellowships will be granted by the Office of Naval Research to support study and research leading to a doctoral degree in one of the following fields: electrical engineering, computer science, naval architecture and ocean engineering, materials science, applied physics, aerospace/mechanical engineering, physical oceanography, mathematics and life sciences. Applicants must be citizens of the U.S. (of any age) who will receive their baccalaureate degree in 1987, or who, by reason of military service, have not attended graduate school since receiving their baccalaureate degree. The fellowships, tenable at U.S. institutions offering doctoral degrees in the designated science and engineering disciplines, offer a stipend of $13,000 per 12-month year. In addition, ONR will provide the affiliated institution, on behalf of each Fellow, full tuition and fees, and will provide $2,000 per year to the Fellow's department. The application deadline is 1 February 1987. Application materials are available from the American Society for Engineering Education (ASEE), Eleven Dupont Circle, Suite 200, Washington, D.C. 20036 (202-745-3616 or 202-293-7080).

**Associated Western Universities (AWU).** AWU is a contractor for the U.S. Department of Energy, providing stipends and other necessary remuneration to teaching faculty members and to student participants who desire to become involved in an energy or energy-related research project at one of the cooperative laboratories or centers in the western U.S. For information telephone or write to Associated Western Universities, Inc., 142 East 200 South, Suite 200, Salt Lake City, Utah 84111 (801-364-5659).

**California State Graduate Fellowships.** The state offers fellowships of up to $6,490 to cover tuition and fees only, for residents of California who attend accredited graduate or professional schools located in California. Write to Graduate Fellowship Section, California Student Aid Commission, 1410 Fifth Street, Sacramento, California 95814. The application deadline for 1987-1988 awards is February 11, 1987.

**Center for Naval Analyses. Summer Employment.** CNA, operated under contract with the Hudson Institute, is engaged in a broad spectrum of operations research and systems analysis studies for the U.S. Navy, Marine Corps, and other government agencies. Opportunities are available for graduate students in operations research, economics, engineering, mathematics, physics, and statistics. Assignments include analysis related to force level planning, manpower, logistics, and operational effectiveness. U.S. citizenship required. Submit resume to Mr. P. D. Moke, Employment Manager, Center for Naval Analyses, 4401 Ford Avenue, Alexandria, Virginia 22302-0268.
Committee on Institutional Cooperation. **CIC Minorities Fellowships in the Sciences, Mathematics and Engineering.** Fellowships are offered to American Indians, Black Americans and Hispanic Americans for graduate study leading to the Ph.D. The fellowships provide full tuition plus an annual stipend of at least $7,000 for each of four years. They may be used at any of these eleven CIC universities: University of Chicago, University of Illinois, Indiana University, University of Iowa, University of Michigan, Michigan State University, University of Minnesota, Northwestern University, Ohio State University, Purdue University, or University of Wisconsin. The deadline for applications for the 1987-1988 academic year is January 9, 1987. Detailed information about the program can be obtained by writing to the CIC Minorities Fellowships Program, 111 Kirkwood Hall, Indiana University, Bloomington, Indiana 47405.

**General Electric Foundation.** Provides research and study grants to selected institutions on a programmed, rotational basis, to be used by the graduate departments as they deem appropriate, which includes fellowships and teaching assistantships in some cases. The Foundation does not grant fellowships or other awards to individuals. For specific information regarding institutions to which grants have been made, write to David Latham, General Electric Foundation, Fairfield, Connecticut 06431.

**Georgia Institute of Technology. President's Fellowships.** These stipends of $10,000 for twelve months, plus waiver of all tuition and fees, are awarded to first-year Ph.D. students and exceptional Masters students. The awards are highly competitive; selection is based on academic criteria and evidence of scholarship. Participants are expected to maintain high academic standing. The Fellowship is renewable upon review for an additional two years. **Graduate Research/Teaching Assistantships.** Part-time employment at the equivalent rates of $20,000 to $26,000 per 12 months, plus waiver of all tuition and fees. Appointments are based primarily on scholarship and ability to contribute to on-going programs of the school. Prospective students who consider themselves highly qualified for an award should include with their application for admission a letter describing in as much detail as possible their qualifications and needs. Write to the Director of the School of Information and Computer Science, Georgia Institute of Technology, Atlanta, Georgia 30332.

**Daniel and Florence Guggenheim Foundation.** Fellowships for U.S. and Canadian residents interested in jet propulsion, energy conversion, fluid mechanics and flight structures. For information on flight structures, write to the Department of Civil Engineering and Engineering Mechanics, Columbia University. For information on applied physics and materials science; dynamics and control systems; energy conversion, propulsion, and combustion; energy and environmental policy; flight science and technology; and fluid mechanics, and computational and experimental fluid mechanics, write to the Director of Graduate Studies, Department of Mechanical and Aerospace Engineering, Princeton University, Princeton, New Jersey 08544.

**Fannie and John Hertz Foundation Fellowships.** The stipend is $12,500, plus $7,000 cost-of-education allowance per nine month year. Offered on the basis of academic (A- undergraduate GPA) and research performance, recommendations, and personal technical interview, for the support of personal and institutional expenses during graduate education directed toward the Ph.D. degree in applied physical sciences. Tenable at the Department of Applied Science of the Davis Campus, and at all campuses of the University of California; California Institute of Technology; Carnegie-Mellon University; The University of Chicago; Cornell University; Courant Institute of Mathematical Sciences, New York University; Georgia Institute of Technology; Harvard University; University of Illinois at Urbana-Champaign; Massachusetts Institute of Technology; Polytechnic Institute of New York; Princeton University; Rensselaer Polytechnic Institute; Rice University; University of Rochester; Stanford University; University of Texas at Austin; Texas A & M University; Vanderbilt University; and University of Wisconsin, Madison. Application deadline is November 1. Applicants should write to the Office of the Graduate Dean at these institutions, or write directly to the Hertz Foundation, P.O. Box 2230, Livermore, California 94550-0130.

**Hughes Aircraft Company Fellowships.** Masters, Engineer Degree, and Doctoral Fellowships are awarded on a competitive basis to qualified individuals in the Engineering Sciences for study at selected universities in the fields of electrical, mechanical, aerospace or systems engineering, computer science, mathematics, or physics. Most are awarded on a work-study basis. U.S. citizenship is required. Write to the Hughes Aircraft Company, Corporate Fellowship Office, Technical Education Center, P.O. Box 45066, Bldg. C1/B168, Los Angeles, California 90045-0066.

**Hubert H. Humphrey Doctoral Fellowships.** Awards are made by the U.S. Arms Control and Disarmament Agency (ACDA) to stimulate interest in the study of arms control in universities around the country by supporting unclassified doctoral dissertation research in the field. Applicants must...
be U.S. citizens or nationals and must have completed all requirements for the doctorate, except the dissertation, at a U.S. college or university. (Law students are also eligible.) The stipend will be $5,000 for a 12-month period, plus applicable tuition and fees of up to $3,400 for one year. Application deadline is March 31, for the 12-month award period beginning in either September or the following January. For application materials write: Hubert H. Humphrey Fellowship Program, U.S. Arms Control and Disarmament Agency, Washington, D.C. 20461.

**Kosciusko Foundation.** Scholarships and grants for Americans of Polish background. Application deadline is January 15. For information write to Scholarship and Exchange Programs, the Kosciusko Foundation, 15 East 65th Street, New York, New York 10021.

**Laboratory Graduate Participation.** Supports full-time thesis and dissertation research at participating DOE research facilities for M.A. and Ph.D. candidates majoring in the life, physical, and social sciences; mathematics; and engineering. Applicants must be U.S. citizens who have completed all requirements for the degree except thesis or dissertation research. The annual stipend is $8,400 plus tuition and fees and additional allowances for dependents. Additional information and application materials may be obtained from University Programs Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, Tennessee 37830-0117.

**National Research Council.** *Ford Foundation Predoctoral and Dissertation Fellowships for Minorities.* Predoctoral and dissertation fellowships consisting of annual stipends of $10,000 and $18,000 respectively are available to minorities enrolled in research-based doctoral programs in mathematics, engineering, and other fields. The predoctoral awards also include an allowance to the awardee's university in lieu of tuition and fees. Students interested in the 1987 doctoral fellowships may obtain application materials from the Fellowship Office, National Research Council, 2101 Constitution Avenue, N.W., Washington, D.C. 20418. The deadline for applications is November 14, 1986.

**National Science Foundation.** *Graduate Fellowships.* Three-year awards available to citizens or nationals of the U.S. for full-time study leading to master's or doctoral degrees in science (including mathematics). Awards made only to students who have completed less than one year of graduate study. Stipends of $11,100 for a 12-month tenure ($925 per month), regardless of level of study. No dependency allowances. Education allowance paid to fellowship institution. Application deadline November 14. Further information and application materials may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418.

**National Science Foundation.** *Minority Graduate Fellowships.* Awarded for study or work leading to the master's or doctoral degrees, these fellowships are granted for periods of three years. They are open to U.S. citizens or nationals who are members of an ethnic minority group underrepresented in the advanced levels of the U.S. science personnel pool, i.e., American Indian, Alaskan Native (Eskimo or Aleut), Black, Hispanic, or native Pacific Islander. The stipend is $11,100 for 12-month tenures ($925 per month), regardless of level of study. No dependency allowances. Education allowance paid to fellowship institution. The deadline for applications is November 14. Application materials may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418.

**Office of Naval Research.** *Graduate Fellowship Program.* ONR will award up to 45 three-year fellowships for study and research at U.S. institutions offering doctoral degrees in specified engineering science disciplines. Participants must be U.S. citizens and receive a baccalaureate degree in 1987. Fellows selected in 1987 will receive a $13,000 for the first year of tenure. ONR will pay the institution full tuition and fees and provide $2,000 to the Fellow's department. ONR Fellowships awarded in this sixth year of the sixth program will be for study and research in nine major disciplines: Electrical Engineering, Computer Science, Naval Architecture and Ocean Engineering, Materials Science, Applied Physics, Aerospace/Mechanical Engineering, Life Sciences, Mathematics, and Secretary of the Navy Fellowships in Oceanography. Deadline for applications is 1 February 1987. Application materials may be obtained from the American Society for Engineering Education (ASEE), 11 Dupont Circle, Suite 200, Washington, D.C. 20036 (202-745-3616 or 202-293-7080).

**Sigma Delta Epilon, Graduate Women in Science.** Awards are available on a competitive basis to those who hold a degree from a recognized institution of higher learning in one of the mathematical, physical or biological sciences and are currently involved in research or have an approved research proposal. Appointments will be made irrespective of race, nationality, creed or age. Applications from women are especially encouraged. Two types of awards are available: *Eloise Gerry Fellowship* (funds vary from year to year, not to be used for a degree program, deadline for applications and credentials December 1), and
Grants-in-Aid ($750, deadline February 1). Announcement of awards will be made by the following July 1. Further information and application forms may be obtained from Sigma Delta Epsilon, Graduate Women in Science, Inc., 9650 Rockville Pike, Bethesda, Maryland 20814. An individual may apply for only one of the two awards. Please indicate to which type of award your inquiry is addressed.

University of Massachusetts. Sabbatical Lectureships. Available in the Department of Mathematics and Statistics, these lectureships are open to faculty members of colleges or universities without a Ph.D. program in mathematics and/or statistics, who wish to spend their sabbatical leaves at the University of Massachusetts. Applicants should generally have a master's degree, will be required to teach one course per semester, and will be expected to enroll in one or two courses and a seminar. Stipends are available; tuition will be waived. For further information, write to Professor M. K. Bennett, Director, Sabbatical Lectureship Program, Department of Mathematics and Statistics, University of Massachusetts, Amherst, Massachusetts 01003.

Postdoctoral Support

Air Force Office of Scientific Research. Research Contracts and Grants. Mathematicians and computer scientists are encouraged to submit proposals through their organizations for research support. Research areas include mathematics of dynamics and control, mathematics of computation, mathematics of physical, chemical or biological systems, mathematics of communication and signal processing, mathematical optimization, applied analysis, finite mathematics, probability and statistics, general computer science, and artificial intelligence. Research proposals should be forwarded to the Director of Mathematical and Information Sciences, Air Force Office of Scientific Research, Bolling AFB, Washington, D.C. 20332.

American Association for the Advancement of Science. Science, Engineering and Diplomacy Fellowships. One-year fellowships are available for work as staff officers in the State Department and in the Agency for International Development. The Fellow must demonstrate exceptional competence in some area of science or engineering, be flexible, and have a strong interest or some experience in applying knowledge toward the solution of problems in the area of foreign affairs. A secret security clearance must be obtained after selection. Salaries are at the GS11 or GS12 level depending upon education and experience. Deadline for receipt of applications is January 15. For application materials and more specific information on assignment possibilities write to Science, Engineering and Diplomacy Fellows Program, AAAS, 1333 H Street, N.W., Washington, D.C. 20005.

American Mathematical Society Research Fellowship. Postdoctoral Fellowships. These fellowships are open to individuals five to ten years past the Ph.D. degree (or equivalent), regardless of age, but below the academic rank of professor. Applicants should have received the Ph.D. degree between January 1, 1977, and December 31, 1982. Moreover, the vita must include the equivalent of at least three full years postdoctoral teaching or industrial experience, i.e., non-fellowship years. The stipend has been set by the Trustees of the Society at $30,000 for nine months of full-time research or its equivalent. In addition, there will be an expense allowance of $1,000. Applicants must be citizens or permanent residents of a country in North America. Fellowships may be held at any institution the Fellow selects or at more than one in succession. There is flexibility in the choice of time interval(s) and manner in which the Fellow may draw funds. For instance, given the opportunity, a Fellow may elect to hold a half-time academic appointment with a teaching responsibility not exceeding one course per term while holding the fellowship at one-half stipend over a two-year period. The Fellow should consult with the Secretary of the Society to learn whether the arrangement proposed is acceptable to the Society. The number of fellowships to be awarded is small and depends on the amount of money contributed to the program. The Trustees have arranged the matching program from general funds in such fashion that funds for at least one fellowship are guaranteed. In recent years, it has not been financially possible to award more than one fellowship. The deadline for receipt of applications is December 1, 1986. Awards will be announced in February 1987, or earlier if possible. For application forms, write to William J. LeVeque, Executive Director, American Mathematical Society, P.O. Box 6248, Providence, Rhode Island 02940. (It should be noted that completed application and reference forms should NOT be sent to this address, but to the address given on the forms.)

American Philosophical Society. Postdoctoral research grants averaging $1,800 for candidates with Ph.D. or equivalent to aid specific research projects. Grants contribute toward travel expenses, food and lodging, photoduplication, and some other research costs. Tenable abroad and in U.S. The Committee on Research meets by end of February, April, June, October, and December. Respective deadlines for application and all supporting material are December 1, February 1, April 1, August 1, and October

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American Society for Engineering Education. **NASA-ASEE Summer Faculty Fellowships.** Programs in science and engineering research in collaboration with the National Aeronautics and Space Administration research centers; for U.S. citizens who are faculty or research members of institutions of higher education. Stipends will be $800/week for ten weeks, plus travel allowance. Application deadline is February 1. For published announcement write to NASA-ASEE Summer Faculty Fellowships, American Society for Engineering Education, Suite 200, Eleven Dupont Circle, N.W., Washington, D.C. 20036.

American Society for Engineering Education. **Navy-ASEE Summer Faculty Research Programs.** Programs in science and engineering research at the laboratories and R&D centers of the Navy; for U.S. citizens who are faculty or research members of institutions of higher education. Stipends will be $800/week, plus travel and relocation allowances. Application deadline is January 16. For a program announcement write to American Society for Engineering Education, Suite 200, Eleven Dupont Circle, N.W., Washington, D.C. 20036.

Argonne National Laboratory. Predoctoral, postdoctoral, and visiting scientist appointments in mathematics and computer science with an emphasis on applied analysis, numerical mathematics, automated program transformation, and automated theorem proving. Of particular interest: parallel algorithms and software for advanced-architecture computers; variety of multiprocessors in Argonne's Advanced Computing Research Facility available for use in research. Summer appointments at undergraduate through visiting scientist levels. Information: Paul Messina, Director, Mathematics and Computer Science Division, Argonne National Laboratory, Argonne, Illinois 60439.

Australian Institute of Nuclear Science and Engineering. **Research Fellowships.** Fellowships are intended for scientists and engineers who have qualifications equivalent to the Ph.D. Stipends are in the range of $23,106 to $27,714 per annum (Australian currency), and the Institute may contribute to travel costs to and from Australia. A research project within the field of nuclear science and engineering of interest to the Institute must be proposed in the nomination after agreement between the candidate and the nominating organization. Further information can be obtained from Executive Office, Australian Institute of Nuclear Science and Engineering, Private Mail Bag, Post Office, Sutherland N.S.W. 2232, Australia. Candidates must be nominated by an Australian university, the Australian Atomic Energy Commission or the Commonwealth Scientific and Industrial Research Organization. Closing dates are February 28 and August 31 each year, and all nominations received after one closing date will be considered together after the next closing date.

R H Bing Faculty Fellowships. Two Fellowships will be available at The University of Texas at Austin with terms beginning September 1, 1987. Each Fellow will hold an Instructorship in the Mathematics Department, with a teaching load of two courses in the fall and one course in the spring. The beginning salary will be $32,000 with a travel supplement of $1,000 per year. The Fellowships are not renewable after three years. Applicants must show outstanding promise in research, and preference will be given to those having doctorates conferred in 1986 or 1987. There are no restrictions on applicants' fields of interest. To apply, send a vita and have three letters of recommendation submitted by January 1, 1987, to R H Bing Faculty Fellowships, Department of Mathematics, The University of Texas, Austin, Texas 78712.

Bowling Green State University. **Post-doctoral Lectureship.** Bowling Green offers a lectureship for the academic year to promising mathematicians and statisticians of any age with a recent Ph.D. The candidate's research interests should supplement those of the departmental faculty. The appointee is expected to participate in seminar activity and teach one calculus course per semester for a compensation of $18,000 for the academic year. Interested persons should send a vita, an official copy of graduate transcripts, and arrange for three letters of reference to: Arjun K. Gupta, Chair, Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, Ohio 43403. Bowling Green State University is an equal opportunity/affirmative action employer.

Brown University. **Jacob David Tamarkin Assistant Professorship.** Three-year appointment, beginning July 1, 1987. Competitive salary. Teaching load: two courses (six hours per semester). Applicants (regardless of age) should have received Ph.D. before start of appointment but no earlier than 1985. Letter of application and three letters of recommendation should be received by January 1, 1987. For more information, applicants should write to the Executive Officer, Department of Mathematics, Brown
University, Providence, Rhode Island 02912. Women and members of minority groups are encouraged to apply. Equal Opportunity/Affirmative Action Employer.

The Bunting Institute of Radcliffe College. Science Scholar Fellowships. The Bunting Institute provides fellowships to postdoctoral scientists to work on projects that will make a contribution to their fields and advance their careers. Open to women scientists in the fields of physical, mathematical, psychological and biological sciences and engineering. Office and laboratory space; stipend $20,000 plus research expenses; one or two year appointment; access to Harvard/Radcliffe libraries and facilities. Deadline for applications is October 15, 1986. Write or call for application and information to: Science Scholar Fellowship Program, The Bunting Institute of Radcliffe College, 10 Garden Street, Cambridge, Massachusetts 02138 (617-495-8212).

California Institute of Technology. Harry Bateman Research Instructorships. Offered by Mathematics at the California Institute of Technology. Normally open to men and women (of any age) who have recently received their doctorate in mathematics. Appointments are for one year and are renewable for one additional year. The annual salary will be $28,000. Duties include teaching one course for the full academic year. Please send applications by January 1 if possible. Inquiries or requests for application forms should be addressed to Professor D. B. Wales, Professor and Executive Officer for Mathematics, 253-37 Sloan Laboratory, Pasadena, California 91125. Caltech is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

Carnegie-Mellon University. Zeev Nehari Assistant Professorship in Mathematics. This position has been instituted in the Department of Mathematics of Carnegie-Mellon University to honor the memory of Professor Zeev Nehari, a member of the Department from 1954 to his death in 1978. Applicants are expected to show exceptional research promise as well as clear evidence of achievement. Each appointment is for two academic years, extendable for one further year when mutually agreeable. It carries a reduced academic year teaching load of six hours per week during one semester and three hours per week during the other. The applicant should have research interests which intersect those of current faculty of the Department. The stipend for the academic year 1986-1987 will be $28,000-$30,000. Application forms and further information on the position and the Department can be obtained by writing to Professor David R. Owen, Chairman, Zeev Nehari Assistant Professorship Committee, Department of Mathematics, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213. To ensure consideration, applications should be filed by February 1, 1986. Carnegie-Mellon University is an Equal Opportunity Employer.

Cornell University. Possible H. C. Wang Assistant Professorship. During the first year the holder of a Wang Assistant Professorship will have a teaching load of two courses in the first semester and one in the second; thereafter, it will be two courses per semester. Salary $27,500. The Assistant Professorship is nonrenewable after a three-year term. Applications and letters of reference should be addressed to Chairman, Department of Mathematics, Cornell University, Ithaca, New York 14853.

Courant Institute. Instructorships in Mathematics. Open to mathematicians (of any age) who are recent recipients of doctoral degrees and who show strong promise in research. The teaching duty will consist of one course each term. Appointments are for two years. The academic salary for nine months will be at least $27,000. In addition, the Courant Institute may be able to offer support for research in residence during two summer months. (When longer term faculty positions are available, applicants for Instructorships will also be considered for them.) Inquiries and requests for application forms should be addressed to the Committee on Instructorships and Visiting Memberships, Courant Institute of Mathematical Sciences, New York University, 251 Mercer Street, New York, New York 10012. Applications should be filed no later than January 1, 1986. N.Y.U. is an Equal Opportunity Affirmative Action Employer.

Courant Institute. Postdoctoral Visiting Memberships. The Courant Institute of Mathematical Sciences of New York University offers postdoctoral Visiting Memberships to mathematicians, scientists and engineers who are interested in its program of training and research in a broad range of pure and applied mathematics. Applications for the academic year 1987-1988 must be submitted before January 1, 1987. Inquiries and requests for application forms should be addressed to the Committee on Instructorships and Visiting Memberships, Courant Institute of Mathematical Sciences, New York University, 251 Mercer Street, New York, New York 10012. N.Y.U. is an Equal Opportunity Affirmative Action Employer.

Dartmouth College. John Wesley Young Research Instructorships. Two instructorships are normally awarded by Dartmouth College each year. Teaching duties are one course for two quarters and two
courses for one quarter (or two courses for two quarters) and are of a varied and nonroutine nature. The academic-year salary of $26,000 is supplemented by a two-month resident research stipend of $3,000. Appointments are for two years and are not renewable. Applicants should write to Department of Mathematics and Computer Science, Dartmouth College, Hanover, New Hampshire 03755 (Attention: Recruiting). Applicants are advised to apply promptly, and no later than January 15, 1987.

Department of State, Agency for International Development. Research grants for research projects and analytical studies on development policy issues emphasizing food production, nutrition, health, education, population, socio-economic and related issues. Research groups are encouraged to propose research to the Agency within the above areas. For further information, write to Edwin Hullander, Policy Development and Program Review, Bureau for Program and Policy Coordination, Agency for International Development, Washington, D.C. 20523.

Fulbright Scholar Awards. The Fulbright Scholar Awards for 1988-1989 include 300 grants in research and 700 grants in university lecturing for periods ranging from three months to a full academic year. There are openings in over 100 countries with some opportunity for multi-country research. Fulbright Awards are granted in virtually all disciplines. Scholars in all academic ranks, retired faculty and independent scholars are eligible to apply. Benefits include round-trip travel; maintenance allowance to cover living costs of grantee and family; and other supplemental allowances. Basic eligibility requirements are U.S. citizenship; Ph.D. or comparable professional qualifications; university or college teaching experience; and, for selected assignments, proficiency in a foreign language. Application deadlines vary. For more information and applications, call or write Council for International Exchange of Scholars, Eleven Dupont Circle N.W., Washington, D.C. 20036-1257 (202-939-5401).

John Simon Guggenheim Memorial Foundation Fellowships. Fellows are usually between thirty and forty-five years of age, but the Committee of Selection also is empowered to nominate persons older than forty-five and younger than thirty. Fellowships are on an advanced professional level. U.S. or Canadian citizenship or permanent residence is required. Fellowships are also offered to citizens or permanent residents of all countries and territories of the Western Hemisphere and the Philippines. Application deadline: October 1. Approximately 300 awards are made, averaging approximately $21,500 in 1986. For more information write to John Simon Guggenheim Memorial Foundation, 90 Park Avenue, New York, New York 10016.

Harvard University. Benjamin Peirce Lectureships. Rank of Assistant Professor. The appointments are for three years with a starting salary of approximately $27,500 (for the nine-month academic year) which can be augmented by teaching in the summer school or by work on a research contract if funds are available. The teaching commitment is six hours per week of lectures including a half course on any topic of the lecturer’s choice. Application forms may be obtained by writing to: Benjamin Peirce Lectureships, Department of Mathematics, Harvard University, One Oxford Street, Cambridge, Massachusetts 02138. Applications must be filed by January 1, 1987. Harvard is an Equal Opportunity/Affirmative Action Employer.

IBM Thomas J. Watson Research Center. Mathematical Sciences Department Postdoctoral and Junior Faculty Research Fellowships. These fellowships provide an opportunity for scientists of outstanding ability to pursue their own research interests in pure or applied mathematics while interacting closely with Department members in an atmosphere in which basic research is combined with exposure to technical problems arising in a mathematically oriented industry. Candidates (of any age) must have no more than five years of postdoctoral professional experience when the fellowship commences. Fellowships have a period of one year, extendable to two years depending on mutual interest in continuation. The stipend will be generally in the range of $45,000 to $50,000 per year, depending on experience. To apply, submit the following by December 1, 1986: résumé; thesis summary; thesis or reprints of publications based on thesis, if available; bibliography with reprints of principal papers; research proposal containing an abstract of approximately 200 words for the period of the fellowship; and three or more letters of reference, including one from your thesis adviser. The letters of reference may arrive separately, but must be received by the above date. Résumé must list applicant’s country of citizenship. Direct all material to Committee on Postdoctoral Fellowships, Department of Mathematical Sciences, IBM Research Center, Post Office Box 218, Yorktown Heights, New York 10598. Applicants will be notified individually as soon as the Committee has reached a decision on the application. The Research Center is located in Westchester County about thirty miles north of New York City.

Indiana University, Bloomington. Václav Hlavatý Research Assistant Professorships. The Mathematics Department at Indiana University expects to receive funding for at least one position at this level, offered to mathematicians with doctorates who show definite promise in research. The appointment is
for three years with an academic-year salary of at least $27,000. The teaching duties during the first academic year will involve three hours per week and during the next two academic years will involve six hours per week. The salary may be supplemented by either teaching or research contracts during the summer months. There will also be an amount of $500 available for professional expenses, such as travel to meetings, supplies, publication costs, etc. Inquiries or requests for application forms should be addressed to John Ewing, Chairman, Department of Mathematics, Swain Hall East, Indiana University, Bloomington, Indiana 47405. Preference will be given to applications received before January 1, 1987. An Equal Opportunity/Affirmative Action Employer.

Institute for Advanced Study Memberships. The School of Mathematics will grant a limited number of memberships, some with financial support, for research in mathematics at the Institute during the academic year 1987-1988. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree. Application blanks may be obtained from the Administrative Officer of the School of Mathematics, Institute for Advanced Study, Princeton, New Jersey 08540, and should be returned (whether or not funds are expected from some other source) by December 31, 1986. An Equal Opportunity/Affirmative Action Employer.

Institute for Computer Applications in Science and Engineering (ICASE). A limited number of visiting appointments are available for both junior- and senior-level researchers at the Institute for Computer Applications in Science and Engineering (ICASE) which is operated by Universities Space Research Association. ICASE serves as a center for interaction between Langley Research Center staff and the academic community in the areas of applied and numerical mathematics, applied computer science, and development of mathematical models in a variety of application areas. Applications for partial support while on sabbatical leave are encouraged, as are applications from Ph.D.'s for one- or two-year renewable appointments. Inquiries should be addressed to the Director, ICASE, Mailstop 132C, NASA Langley Research Center, Hampton, Virginia 23665. An Equal Opportunity Employer.

Lawrence Livermore National Laboratory. Postdoctoral research appointments and graduate research assistantships. Areas of special interest include development of computer systems, computer graphics, numerical analysis, and programming science. U.S. citizenship required. Inquiries should be directed to Robert E. Huddleston (L-61), Computation Department, Lawrence Livermore National Laboratory, University of California, Livermore, California 94550.

Los Alamos National Laboratory. Research opportunities in computer science, numerical science, applied mathematics, and physics. A limited number of postdoctoral appointments is available for one year, subject to renewal for a second year. Los Alamos National Laboratory is an equal opportunity employer. Write to Carol Rich, Mail Stop P-290, Los Alamos National Laboratory, University of California, Los Alamos, New Mexico 87545.

Los Alamos National Laboratory. J. Robert Oppenheimer Research Fellowship. Candidates must be recipients of a doctorate in the physical sciences, natural sciences, mathematics or engineering, and must show clear and definite promise of becoming outstanding leaders in scientific research. One- to three-year appointment; salary: $48,240/year; application deadline: mid-December each year. For additional information write to Carol Rich, Mail Stop P-290, Los Alamos National Laboratory, Los Alamos, New Mexico 87545. An Affirmative Action/Equal Opportunity Employer.

Massachusetts Institute of Technology. C. L. E. Moore Instructorships in Mathematics. Offered by the Department of Mathematics at the Massachusetts Institute of Technology. Open to mathematicians with doctorates who show definite promise in research. The base salary will be at least $27,200, and the teaching load is six hours per week in one semester and three hours per week in the other. Appointments are for one year and are renewable for one additional year. Applicants please send (a) a vita; (b) a description of the research in your thesis and other work you have done (1-3 pages); and (c) the research which you plan for next year. Application should be sent, by December 31 if possible, to the Department of Mathematics, Room 2-263, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139. M.I.T. is an Equal Opportunity Employer.

Mathematical Sciences Research Institute. The Institute will award about 20 yearlong research fellowships with starting date August or September 1987 for new and recent Ph.D.'s. The stipend will be at least $27,200. The year 1987-1988 features classical analysis and representations of Lie groups, but some awards will be made in other areas, so applications from candidates in all fields are welcome. Formal application forms are not used, but a sheet giving suggestions on how to apply is available on request. Write to the Mathematical Sciences Research Institute, 1000 Centennial Drive, Berkeley, California 94720. Files must be complete by January 1, 1987.
The Michigan Society of Fellows. Horace H. Rackham School of Graduate Studies, The University of Michigan. The Michigan Society of Fellows was founded in 1970 through grants from the Ford Foundation and Horace H. Rackham Graduate School for the purpose of promoting academic and creative excellence in the arts, sciences and professions. The objective of the program is to support individuals selected for outstanding achievement and professional promise. We invite applications from qualified candidates for 4 three-year postdoctoral fellowships at The University of Michigan. Candidates should be at the beginning of their professional careers, not more than three years beyond completion of their degrees. The Ph.D. degree or comparable professional degree, received prior to appointment, is required. Fellows are appointed as Assistant Professors/Postdoctoral Scholars with departmental affiliations. They spend the equivalent of one academic year teaching; the balance of time is devoted to their own scholarly research and creative work. Applications will be screened by faculty in relevant University of Michigan departments. Final selections will be made by the Senior Fellows of the Society. Four new Fellows will be selected for three-year terms beginning September 1, 1987. The initial stipend will be $18,000 with annual increments of $1,000. Completed applications are due by November 14, 1986. Please send requests for application materials to Michigan Society of Fellows, 3030 Rackham Building, The University of Michigan, Ann Arbor, Michigan 48109-1070 (313-763-1259).

National Center for Atmospheric Research. Advanced Study Program. Postdoctoral Fellowships are offered for highly qualified atmospheric scientists, and scientists from related disciplines, who wish to continue basic research in the atmospheric sciences. Appointments are for a one-year period with a possible extension for an additional year. Stipends are $23,000 for recent recipients of the Ph.D. and are adjusted annually in June. The application deadline is January 28. Inquiries should be sent to Betty Wilson, Administrator, Advanced Study Program, NCAR, P.O. Box 3000, Boulder, Colorado 80307.

National Research Council. Ford Foundation Postdoctoral Fellowships for Minorities. Administered by the National Research Council, these fellowships are sponsored by the Ford Foundation. Applicants must be U.S. citizens who are members of one of the designated minority groups: American Indians and Alaskan Natives (Eskimo or Aleut), Black Americans, Mexican Americans/Chicanos, Native Pacific Islanders (Micronesians and Polynesians), or Puerto Ricans, who are engaged in college or university teaching, and hold a doctoral degree. Tenure of the one-year fellowship provides postdoctoral research experience at an appropriate nonprofit institution of the Fellow’s choice. The deadline for the submission of applications is January 16, 1987. Further information and application materials may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Avenue, N.W., Washington, D.C. 20418.

National Research Council. Research Associateship Programs. These programs provide scientists and engineers opportunities for postdoctoral research, free from administrative duties, in a variety of scientific disciplines and fields of specialization. The programs are conducted in cooperation with selected federal organizations with laboratories at approximately sixty-five geographic locations in the United States. Most programs are open to senior investigators as well as recent Ph.D.’s. Most are also open to foreign nationals as well as U.S. citizens. Applications for these competitive awards will be received by the National Research Council until January 15, 1987. Appointments will be made in the spring. In some programs additional deadlines are April 15 and August 15 with awards announced in July and November respectively. Stipends will vary according to the type of appointment, but will not be less than $26,350. Further information and application materials can be obtained from Associateship Programs (JH 608-D3), National Research Council, 2101 Constitution Avenue, N.W., Washington, D.C. 20418.

National Science Foundation. Computer Science Research. Grants support research concerned with such topics as theoretical foundations of computer science; software systems science, software engineering, intelligent systems, and computer systems design. Guidelines on eligibility and proposal preparation are available in “Grants for Scientific and Engineering Research.” For this brochure and additional information write: Division of Computer Research, National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550.

National Science Foundation. Mathematical Sciences Postdoctoral Research Fellowships. (With Research Instructorship Option). The format of the 1987 Fellowship program has not been significantly changed from that of 1986. The stipend portion of the awards will consist of support for two nine-month academic years and six summer months, for a total of 24 months of support. The awardee will have two options for the academic years’ stipend: as full-time support for any eighteen academic-year months in a three-year period, in intervals not shorter than three consecutive months (the Research Fellowship Option), or as a combination of full-time and half-time support over a period of three academic years, usually as one academic year full-time and two academic years half-time (the Research Instructorship Option).
OTA Congressional Fellowship Program. The Office of Technology Assessment is seeking qualified candidates from academia, private industry and the public sector for its Congressional Fellowship Program. Up to six Fellows will be selected for a 1-year appointment in Washington, D.C. beginning in September 1987. The program is open to men and women of all disciplines who have demonstrated exceptional competency in the physical or biological sciences, engineering, law, economics, environmental and social sciences, or public policy. Candidates must have completed research and training at the doctoral level, or have equivalent experience. Salaries will range from $27,000-$45,000 per year, based on the Fellow’s current salary and/or training and experience. In some instances a Fellow may accept a salary supplement from his or her parent institution. For application information contact Congressional Fellowships, Personnel Office, Office of Technology Assessment, Congress of the United States, Washington, D.C. 20510.

Rice University. Griffith Conrad Evans Instructorships. Postdoctoral appointments for two to three years for promising research mathematicians with research interests in common with the active research areas at Rice. Applications should be in by 15 January 1987. Rice University is an Equal Opportunity/Affirmative Action Employer. Inquiries and applications should be addressed to Chairman, Evans Committee, Department of Mathematics, Rice University, Box 1892, Houston, Texas 77251.

Sloan Foundation. Research Fellowships. Unrestricted grants made to selected university scientists in the physical sciences, mathematics, applied mathematics, economics, and in neuroscience. Candidates must be members of the regular faculty, though not necessarily in a tenured position, at a recognized college or university in the United States or Canada. Candidates do not apply but are nominated by their department chairmen or other scientists. For information write to the Sloan Research Fellowships, Alfred P. Sloan Foundation, 630 Fifth Avenue, New York, New York 10111.

U.S. Department of Energy (DOE). Special University-Laboratory Cooperation. Participants engage in laboratory-approved projects in a program designed to increase the interactions and flow of information between universities and DOE laboratories. Included is research in applied mathematics and computer science. Inquiries should be addressed to the Director at any of the following organizations: Associated Western Universities, 142 East 200 South (Suite 200), Salt Lake City, Utah 84111; Argonne Division of Education Programs, 9700 South Cass Avenue, Argonne, Illinois 60439; Brookhaven National Laboratory, Upton, New York 11973; Northwest College and University Association for Science (NORCUS), 100 Sprout Road, Richland, Washington 99352; Oak Ridge Associated Universities, Oak Ridge, Tennessee 37830.

University of California, Irvine. Visiting Irvine Assistant Professorships 1985-1986. The position enables mathematicians (of any age) beginning their career who show definite promise in research to participate in an environment of vigorous mathematical research and instruction. Appointment is for one year; can be renewed for second year. Annual salary: $30,000. Teaching duties comparable to those of regular faculty. Appointees are expected to direct seminars in their specialty. Applications and three letters of recommendation must be received by February 15, and should be accompanied by a curriculum vitae and an account of works in print or preparation, and a brief description of research plans. All enquiries and applications should be sent to: The Irvine Visiting Assistant Professorships in Mathematics, Department of Mathematics, University of California, Irvine, California 92717. An Affirmative Action/Equal Opportunity Employer.

University of California, Los Angeles. Earle Raymond Hedrick Assistant Professorships in Mathematics. The Department of Mathematics, University of California, Los Angeles, will make one or two appointments for the year 1987-1988. These awards will be made to mathematicians with Ph.D.'s who show strong promise in research. The appointment will be for three years at an annual salary of $35,800, plus a research supplement of $3,978 for the first summer. The teaching load will be three hours per week for two quarters and six hours per week for one quarter. One course may be an advanced course in the candidate's research area. Requests for application forms should be sent to the Chairman, Department of Mathematics, University of California, 405 Hilgard Avenue, Los Angeles, California 90024. The deadline for applications is January 1, 1987. UCLA is an Equal Opportunity/Affirmative Action Employer.
University of California, San Diego. S. E. Warschawski Assistant Professorship. Special two-year position offered by the University of California, San Diego. The nine-month salary is $35,800. Candidates should possess a Ph.D. degree in mathematics or expect to receive one prior to September 1987. All areas will be considered. Selection will be based primarily on demonstrated research achievement. Teaching experience is desirable. To apply, have at least three letters of reference, vita and publications sent to “Faculty Search Committee”, C-012, Department of Mathematics, University of California, San Diego, La Jolla, California 92093. We expect to have referees write to us directly. All applications received by December 1, 1986 will receive thorough consideration. All supporting documents must be received no later than January 5, 1987. University of California, San Diego is an Equal Opportunity/Affirmative Action Employer.

University of Chicago. Assistant Professorships and Leonard Eugene Dickson Instructorships in Mathematics. The Dickson Instructorships are intended for new or recent Ph.D.’s. Appointment is for two years with an annual salary of at least $28,500. The Assistant Professorships are intended for people with two or more years of postdoctoral experience. Appointment is for three years with an annual salary of at least $31,000. In both positions, the teaching load is four one-quarter courses per year. Application deadline is January 1, 1987. Further information and application forms may be obtained from the Appointments Secretary, Department of Mathematics, University of Chicago, 5734 S. University Avenue, Chicago, Illinois 60637.

University of Cincinnati. Charles Phelps Taft Postdoctoral Fellowships. These fellowships are intended to afford scholars who have demonstrated unusual ability for creative research the opportunity to enhance their education through additional study and research. Applicants must have been awarded the Ph.D. degree during the past five years or have completed all degree requirements by September 1 of the year in which the tenure will begin. Applications must include a research plan and the name of a University of Cincinnati faculty member, if known, with whom the applicant would like to study. Ten departments, including the Department of Mathematical Sciences, compete for three awards. Tenure is for one academic year and involves no teaching duties; however, teaching is allowed for additional compensation. Inquiries should be sent to the University Dean for Graduate Education and Research, Mail Location 627, University of Cincinnati, Cincinnati, Ohio 45221. The deadline for the complete application is February 1.

University of Michigan, Ann Arbor. T. H. Hildebrandt Research Assistant Professorships. Designed to provide mathematicians with favorable circumstances for the development of their research talents. Preference is given to persons of any age having their Ph.D. less than two years. Teaching load averages one and one-half courses per semester. The stipend for the academic year 1987-1988 will be determined later; there is a good possibility of additional income during the summer. Appointment is for three years. NSF postdoctoral fellowships may be held simultaneously with a further reduction in teaching load. Applicants should submit completed application form and request at least three letters of recommendation. Letters should contain comments on applicant’s mathematical promise, teaching ability, and personality. First preference will be given to applications completed, and supported by three or more letters, prior to January 6. Appointments will be announced by the middle of February. Applications should be made to D. J. Lewis, Chairman, Department of Mathematics, University of Michigan, Ann Arbor, Michigan 48109-1003. Affirmative Action Employer.

University of Pittsburgh. Andrew Mellon Postdoctoral Fellowships. Intended to support the research and foster the professional development of scholars who give promise of achieving distinction in their fields. Applicants should submit a completed application form, a research proposal, three to ten pages long, a list of publications, and three letters of recommendation by January 15. The Fellows are expected to be in residence at the University of Pittsburgh and to engage in research during their period of appointment; they have no other formal responsibilities.Preference will be given to applicants who have completed all doctoral degree requirements by January 15. A basic stipend of $18,500 for eleven months, plus an allowance for traveling expenses (up to $200) and incidental costs (not to exceed $200), make up the award. Nine-month appointments are available for a stipend of $15,200. Applications may be obtained from the Director of Graduate Programs, Faculty of Arts and Sciences, University of Pittsburgh, Pittsburgh, Pennsylvania 15260.

University of Utah. Instructorship in Mathematics. Three or four 3-year instructorships are offered each year. Persons of any age receiving Ph.D. degrees in 1986 or 1987 are eligible. Applicants will be selected on the basis of ability and potential in teaching and research. Starting salary this year is $24,000 and cost of living increases are contingent on action by the State Legislature. Duties consist of teaching two courses throughout the academic year. Applications must include curriculum vitae, bibliography, abstract of thesis, list of graduate courses completed or transcripts and three letters of

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recommendation. Please send applications to Instructorship Committee, Department of Mathematics, University of Utah, Salt Lake City, Utah 84112.

**University of Wisconsin, Madison.** *Van Vleck Assistant Professorship in Mathematics.* Applications are invited from outstanding mathematicians (of any age) who are recent recipients of a doctorate. People are sought who will interact well with members of the department, who care about teaching, and who can contribute to the research and instructional programs. The regular teaching load is two courses per semester, with at least one in the applicant's specialty every other year. There is a high probability of additional income through research or teaching during summers between consecutive years of appointment. The salary will be dependent on experience and will be at least $28,000 per academic year. All positions are for specified two- or three-year terms. Deadline for applications is December 31, 1986. Application forms may be obtained by writing Louis Solomon, Department of Mathematics, Van Vleck Hall, University of Wisconsin, 480 Lincoln Drive, Madison, Wisconsin 53706.

**Yale University.** *Josiah Willard Gibbs Instructorships.* Offered to men and women with the doctorate who show definite promise in research in pure mathematics. Applications from women and members of minority groups are welcome. Appointments are for two years. The 1986-1987 salary is $28,000; an increase is expected for 1987-1988. The teaching load is kept light to allow ample time for research. If desired, part of the teaching duties may consist of a one-semester course at the graduate level in the general area of the instructor's research. Inquiries and applications should be addressed to the Gibbs Committee, Department of Mathematics, Yale University, Box 2155 Yale Station, New Haven, Connecticut 06520. Preference will be given to applications received before February 1987.

**Travel and Study Abroad**

**The African-American Institute.** Seeks to further African development and to strengthen understanding between the United States and Africa. For information about the several programs write the African-American Institute program representatives in twenty-one African countries, relevant African ministries or universities, or the Division of Education, African-American Institute, 833 United Nations Plaza, New York, New York 10017.

**American-Scandinavian Foundation.** Fellowships for study or research in Scandinavia (Denmark, Finland, Iceland, Norway, and Sweden). Applicants must be U.S. citizens or permanent residents and have completed their undergraduate education by the time the overseas project is to begin. Necessary language competence, financial need, and merit in pursuing the study program in Scandinavia are considered in making these awards. The deadline for completed applications is November 1. Write to the Exchange Division, The American-Scandinavian Foundation, 127 East 73rd Street, New York, New York 10021.

**Winston Churchill Foundation.** A scholarship program for graduate work in engineering, mathematics and science at Churchill College, Cambridge University. Application forms are available from representatives on campuses of colleges and universities participating in the program. For further information write to The Winston Churchill Foundation, P.O. Box 1240, Gracie Station, New York, New York 10028.

**Committee on Scholarly Communication with the People's Republic of China (CSCPRC).** *Visiting Scholar Exchange Program.* This program provides a limited number of awards for short-term research and lecture visits for American and Chinese scholars in all disciplines, including the natural and engineering sciences. Application is open to U.S. citizens and permanent residents regardless of natural origin, race, sex, or religious affiliation. Deadline is October 11, 1986. Address requests to CSCPRC, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, D.C. 20418.

**Lady Davis Visiting Professorships.** Lady Davis Visiting Professorships, for periods from one semester to a full academic year, are intended for candidates with the rank of Full or Associate Professor at their own institution. Such Visiting Professors are appointed after consultation with the appropriate Faculties of the Hebrew University of Jerusalem or the Technion-Israel Institute of Technology, Haifa. The grant includes a professorial salary and cost of travel. Deadline for completed applications is December 1, 1986. Application forms can be obtained from the Lady Davis Fellowship Trust, P.O. Box 1255, Jerusalem, Israel.

**Fulbright-Hays Program.** *Fulbright and Other Grants for Graduate Study Abroad.* For graduate study or research in any field in which the project can be profitably undertaken abroad. Applicant must be a
U.S. citizen, hold a B.A. degree or the equivalent, and have language proficiency sufficient to carry out the proposed study and to communicate with the host country. If an applicant is already enrolled in a U.S. university, he must apply directly to the Fulbright Program Adviser on his campus. Unenrolled students may apply to the Institute of International Education. Further details may be obtained from the U.S. Student Programs Division, Institute of International Education, 809 United Nations Plaza, New York, New York 10017.

**Fulbright Program. Collaborative Research Grants.** United States Government grants available in all fields for teams of two or three graduate students or recent postdoctoral researchers for research abroad. Eligibility requirements include U.S. citizenship and a sufficient proficiency in both the written and spoken language of the host country to carry out the proposed research. Deadline for completed applications is January 16, 1987. Further details may be obtained from the U.S. Student Programs Division, Institute of International Education, 809 United Nations Plaza, New York, New York 10017.

**Fulbright Program. Postdoctoral Awards.** United States Government grants available annually in all fields for university lecturing and postdoctoral research abroad. Eligibility requirements include U.S. citizenship; for lecturing, college teaching experience; for research, a doctoral degree or recognized professional standing at the time of application. In certain cases a knowledge of the language of the host country is required. Write to Council for International Exchange of Scholars, Attention: Indo-American Fellowships Program, Eleven Dupont Circle, Washington, D.C. 20036 (202-993-5401).

**Alexander von Humboldt Foundation. Research Fellowships.** Provides postdoctoral scholars with the opportunity of carrying out research at a university or other research institute within the Federal Republic of Germany incl. Berlin (West). Scholars of all nationalities and disciplines may apply. Selection is based exclusively on academic merit. Applicants must have completed their academic studies, have evidence of a degree equivalent to the doctorate (Ph.D., C.Sc., etc.), and for research in the humanities, have adequate knowledge of German. Furthermore they must present evidence of employment in independent research work at the university level, and have scholarly publications to her/his credit. Period of fellowship: 6 to 12 months (extension possible up to 24 months). Applications may be obtained from and returned directly to the Alexander von Humboldt-Stiftung, Jean-Paul-Strasse 12, D-5300 Bonn 2, Federal Republic of Germany. Additional scholarships for a German language course are available.

**Indo-American Fellowship Program.** 12 grants to be awarded to U.S. citizens for advanced research in India, for six- to ten-month periods during the academic year. In addition to a basic grant there are travel, dependent and research allowances. Also up to nine shorter grants (two- to three-months) for research and/or professional activity. Applications are encouraged from non-Indian specialists and for projects which include collaboration with Indian colleagues. Deadline for applications June 15 each year. For details write the Council for International Exchange of Scholars, Attention: Indo-American Fellowships Program, Eleven Dupont Circle, Washington, D.C. 20036.

**International Research and Exchanges Board (IREX).** IREX administers academic exchange programs, open to advanced graduate students, postdoctoral scholars, and faculty members in all fields of study who are United States citizens, and who are affiliated with a North American college or university. Exchange agreements are in effect with Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, Yugoslavia, and the USSR. Placements are made for one to ten months at universities or academy institutes. For more detailed information, write to the International Research and Exchanges Board, 655 Third Avenue, New York, New York 10017.

**Kosciuszko Foundation. Graduate and Postgraduate Exchange with Poland.** Open to U.S. citizens. Candidates must have at least a master's degree and a knowledge of the Polish language. Apply by November 15 for the following academic year. Write to Scholarship and Exchange Programs, Kosciuszko Foundation, 15 East 65th Street, New York, New York 10021.

**Marshall Scholarships.** Offered by the British Government to U.S. graduates; tenable at any university in the United Kingdom. Recipients of awards are required to take a degree at their British university. Fields unrestricted. Apply through British Consulates-General in the following regions (1) Northeast: Suite 4740 Prudential Tower, Prudential Center, Boston, Massachusetts 02199; (2) Mideast: 3100 Massachusetts Avenue, N.W., Washington, D.C. 20008; (3) South: Suite 912, 225 Peachtree Street, N.E., Atlanta, Georgia 30303; (4) Central: 33 North Dearborn Street, Chicago, Illinois 60602; (5) Pacific: 1 Sansome Street, San Francisco, California 94104.
National Academy of Sciences. For U.S. scientists who wish to commence visits from September 1, 1987 to December 31, 1988 in the USSR, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania or Yugoslavia. Length of visit is one month (lecture, survey) or three to twelve months (research). Requirements are U.S. citizenship and a Ph.D. or its equivalent by June 1987 in the physical, biological, and behavioral sciences. All necessary expenses will be met by the NAS and the foreign academy, including salary reimbursement up to a predetermined maximum for long-term visits and paid expenses for accompanying family on visits of five months or more. For further information, write to the National Academy of Sciences, Office of International Affairs, Soviet and East European Affairs (JH-218), 2101 Constitution Avenue, N.W., Washington, D.C. 20418. Applications must be postmarked by February 28, 1987.

National Science Foundation. Travel awards for U.S. citizens who are either predoctoral students or individuals who have held a doctoral degree for three years or less as of the starting date of the Institute, to attend North Atlantic Treaty Organization (NATO) Advanced Study Institutes in Europe. Applications are made to the appropriate NATO Institute Director who nominates eligible candidates. Information may be obtained by writing to the NATO Program, Division of Research Career Development, Directorate for Scientific and Engineering Personnel and Education, National Science Foundation, Washington, D.C. 20550.

North Atlantic Treaty Organization. The NATO Science Committee has a Programme of Grants for Collaborative Research which provides financial aid for research projects aimed at stimulating, encouraging and facilitating scientific research in collaboration between scientists working in different member countries of the Alliance, thus promoting the flow of ideas and of experimental and theoretical methods across frontiers. Projects are supported for a limited period usually not exceeding five years, covering mainly travel and living expenses abroad for principal investigators visiting partner laboratories or for staff members collaborating on specific projects with laboratories abroad. Deadlines for applications are 31 March, 15 August and 30 November. Application forms and details of the awards together with information about the Science Committee’s other programmes can be obtained from: Scientific Affairs Division, NATO, 1110 Brussels, Belgium.

North Atlantic Treaty Organization. Postdoctoral Fellowships. Awarded for nine- to twelve-month periods, for scientific study or work at appropriate nonprofit institutions in NATO countries, other than the U.S., or neighboring countries that cooperate with NATO. This program is for citizens or nationals of the U.S. Fellows receive a stipend of $19,200 for twelve-month tenure, plus dependency and travel allowances. Application deadline is November 1. For information and application material, write to NATO Program, Division of Research Career Development, National Science Foundation, Washington, D.C. 20550.

Royal Norwegian Council for Scientific and Industrial Research. Postdoctoral Fellowships. Fields: engineering and applied sciences. Studies can be carried out at the Universities of Oslo and Bergen, the Technical University of Norway, and at institutes for applied research in Oslo, Bergen, and Trondheim. English may be used at all institutes; German and French at some institutes. Deadline each year is December 1. Write to Royal Norwegian Council for Scientific and Industrial Research, Sognsveien 72, P.O. Box 70, Tåsen, 0801 Oslo 8, Norway.

Weizmann Institute of Science. Feinberg Graduate School Postdoctoral Fellowships. The Fellowships are intended mainly for scientists who have recently obtained their Ph.D. degree. The Fellowships provide a 12-month stipend (with possible renewal for a second year), a small relocation allowance and a one-way air ticket. Round-trip airfare is provided if the Fellowship is extended for a second year. The annual stipend is adjusted periodically in accordance with living costs. Application forms and additional information may be obtained from the Feinberg Graduate School, The Weizmann Institute of Science, P.O. Box 26, Rehovot 76100, Israel. The review of applications is held twice a year, on January 1 and May 15.

Weizmann Institute of Science. Openings for Scientists and Postdoctoral Fellowships. The Weizmann Institute of Science is now offering a limited number of temporary appointments to the position of Scientist. Candidates must have completed two years of post-doctoral work. Appointments will be made in all the areas of scientific research at the Institute: Biology, Chemistry, Biochemistry-Biophysics, Physics, Mathematics, and Science teaching. Appointments are for a period of one year, however, they may be extended for a period not to exceed 5 years from receipt of Ph.D. degree (or equivalent). Successful appointees will be eligible to apply for promotion to the position of Senior Scientist. Financial renumeration for a Scientist is at the level of Lecturer and includes all of the associated benefits. In addition, a relocation stipend is provided. Application forms and additional information may be
obtained from The Feinberg Graduate School, The Weizmann Institute of Science, Rehovot, 76100
Israel. Applications are reviewed each year on January 1 and May 15.

Study in the U.S. for Foreign Nationals

Many of the programs in the Graduate Support and Postgraduate Support sections are also
applicable to Foreign Nationals.

American-Scandinavian Foundation. Scandinavian scholars are awarded graduate fellowships to study
in the U.S. For information write to the appropriate society in Scandinavia cooperating with the
American-Scandinavian Foundation (Danmark-Amerika Fondet, Nytorv 9, DK-1450 Copenhagen K,
Denmark; Suomi-Amerikka Yhdistysten Liitto, Mechelininkatu 10 A 10, SF-001 00 Helsinki 10,
Finland; Íslenzk-Ameríska Félagid, P.O. Box 7051, Reykjavik, Iceland; Norge-Amerika Foreningen,
Drammensveien 20C, 0255 Oslo 2, Norway; Sverige-Amerika Stiftelsen, Box 5280, S-102 46 Stockholm,
Sweden), or to the Exchange Division, The American-Scandinavian Foundation, 127 East 73rd Street,
New York, New York 10021.

Fulbright Program. Grants under the Fulbright Act for study, research, teaching and lecturing in the
United States are available to nationals of many countries. Information regarding these opportunities
may be secured from the Cultural Affairs Officer of the United States Embassy or from the binational
Educational Commission or Foundation if there is one in the inquirer's own country. The number of
grants for each academic year will depend on funds available.

Institute of International Education. Grants for study, training and research in the U.S. Open to
nationals of most countries. I.I.E. develops and administers exchange programs for a number of
organizations and corporations, and administers U.S. Government grants under the Fulbright and
other educational exchange programs of the U.S. Information Service. Information regarding these
opportunities may be secured from the Cultural Affairs Officer of the U.S. Embassy or from the
Binational Commission or Foundation if there is one in the inquirer's own country. Write to Foreign
Fulbright Programs Division, IIE, 809 United Nations Plaza, New York, New York 10017.

International Research and Exchanges Board (IREX). Provides opportunities for foreign scholars and
students to receive training and to conduct research at academic institutions in the United States. The
sending country nominates its own participants to the exchanges, while the receiving country places the
nominees at appropriate institutions of higher learning, normally for periods of a semester or an academic
year. Soviet and East European scholars interested in the various exchange programs administered by
IREX should consult the agencies in their own countries which administer the exchanges. These are:
Department of Personal Scientific Exchange, Division of International Scientific-Technical Cooperation,
State Committee for Science and Technical Progress, Slavyanska 8, Sofia, Bulgaria; Foreign Department,
Ministry of Education of the Czech Republic, Karmelitska, 7, Prague 1, Czechoslovakia, or International
Department, Ministry of Education of the Slovak Republic, Suvorovova 16, Bratislava, Czechoslovakia;
Ministry for Higher and Technical Education of the German Democratic Republic, Marx-Engels Platz
2, 102 Berlin, German Democratic Republic; International Cultural Institute, V. Dorotyua utca 8,
Budapest, Hungary; International Relations Department, Ministry of Science, Higher Education and
32-24, Bucharest, Romania; Federal Administration for International Scientific, Cultural, Educational,
and Technical Cooperation, Kosancicev Venac 29, 11000 Belgrade, Yugoslavia; Department of Foreign
Relations, Ministry of Higher and Specialized Secondary Education of the USSR, Lyusinovskaya 51,
Moscow, USSR, or Department of Foreign Relations, Academy of Sciences of the USSR, Leninskii
prospekt 14, Moscow 117901, USSR. Write to Programs Officer, IREX, 655 Third Avenue, New York,
New York 10017.

Kennedy Scholarships. For citizens of the United Kingdom, these grants are for graduate study at
Harvard University or the Massachusetts Institute of Technology. Application deadline is October 24.
Write to Secretary, Kennedy Memorial Trust, 16 Great College Street, London SWIP 3RX, England.

Kosciuszko Foundation. One-year grants to doctoral and postdoctoral students. Applicants must be
Polish citizens and have excellent command of English. Apply by November 15 for the following
academic year. Write to Scholarship and Exchange Programs, the Kosciuszko Foundation, 15 East 65th
Street, New York, New York 10021.
Sources of Fellowship Information

Some of the publications listed below are available at school, or college and university libraries, or in the reference room of a good public library.

**American Association of University Women Educational Foundation.** Programs Office, 2401 Virginia Avenue, N.W., Washington, D.C. 20037.

**Annual Register of Grant Support, 1986-1987.** National Register Publishing Co., 3004 Glenview Road, Wilmette, IL 60091. Directory of fellowships, grant support programs of government agencies, foundations, and business and professional organizations. Annual. $96.00 plus $3.75 postage and handling.


**Basic Facts on Foreign Study.** A fact sheet on what to expect from a study-abroad program and where to find pertinent information; 1985, 32 pp.; single copies free, $35 per 100. Communications Division, Institute of International Education, 809 United Nations Plaza, New York, New York 10017.

**Chronicle Student Aid Annual, 1986.** Catalog No. 502A. $18.75 plus $1.88 postage and handling. Revised annually. Chronicle Guidance Publications, Inc., Aurora Street, P.O. Box 1190, Moravia, New York 13118. Provides information on about 1,350 financial aid programs available to undergraduate, graduate, and postgraduate students, including programs sponsored by private organizations and foundations, state and federal government sources, and national and international labor unions, both AFL-CIO affiliated and independent. A Cross Reference to Programs gives easy access to programs for which a student may be eligible.


**Directory of Special Opportunities for Women.** Listings of national, state, county, city and private organizations, associations, programs and agencies where women can find educational and career opportunities (290 pages). Garrett Park Press, Garrett Park, Maryland 20896. $18 prepaid.


**Scholarships, Fellowships, and Loans by S. Norman Feingold and Marie Feingold.** Volume VII, 1982: $75 and Volume VIII, 1986: $80. Both volumes should be used together. They provide detailed coverage about assistantships, fellowships, and research opportunities that are not awarded by the institutions recipients attend. Bellman Publishing Company, P.O. Box 34937, Bethesda, Maryland 20817.

**Financial Aid for Minorities in Science.** Financial assistance, scholarship and fellowship programs, resources for further information, 1981, Garrett Park Press, Garrett Park, Maryland 20896. $3.


**Fulbright-Hays Program.** Information on grants for teaching in elementary and secondary schools, and colleges, abroad, as well as study (seminar) opportunities abroad, may be obtained from the Teacher Exchange Branch, E/ASX, United States Information Agency, 301 Fourth Street, S.W., Washington, D.C. 20202.

International Research and Exchanges Board (IREX). Programs administered by IREX include exchanges for a semester or an academic year with the USSR and Socialist countries of Eastern Europe, grants to promote new exchanges, collaborative projects in the social sciences and humanities, preparatory fellowships and language programs. The IREX programs provide access at the predoctoral and postdoctoral levels to East European and Soviet universities and academies of sciences. For a program announcement describing the full range of IREX programs, write to the International Research and Exchanges Board, 126 Alexander Street, Princeton, New Jersey 08540-7102.


President’s Commission on White House Fellowships. The White House Fellowships offer outstanding Americans early in their careers the opportunity to serve for one year, September through August, as special assistants to Cabinet Officers, to the Vice President, or to members of the President’s senior staff. The fellowships are open to all U.S. citizens, with the exception of civilian employees of the Federal government. Applications for the 1987-1988 fellowships may be obtained from the President’s Commission on White House Fellowships, 712 Jackson Place, N.W., Washington, D.C. 20503. Telephone (202)395-4522. The application deadline is December 15, 1986.

Private Sector Funding Available to Foreign Scholars and Students in the United States. Prepared by Ellen Wise Sivon, 1984. Lists private organizations offering awards to individual students and scholars for study primarily in the United States. Grant and fellowships indexed by field of study and academic level. Available from the National Association for Foreign Student Affairs, 1860 19th Street, N.W., Washington, D.C. 20009. $2.95, plus $2.00 shipping.

Rhodes Scholarships. For U.S. citizens; tenable at Oxford University. Selection is made on four criteria: scholarship, character, leadership, and physical vigor. Information is available through the applicant’s college or university, or from the Rhodes Scholarship Office, Pomona College, Claremont, California 91711.

Scholarships, Fellowships and Loans News Service and Counselors Information Services. The Staff, Bellman Publishing Company, P.O. Box 34937, Bethesda, Maryland 20817, published quarterly, $32 per year. Up-to-date information regarding student financial aid. Annotated bibliography of books and professional journals.


U.S. Information Agency (USIA). For information on USIA’s international educational and cultural exchange programs, including the Fulbright Program, write the Office of Public Liaison, U.S. Information Agency, 301 Fourth Street, S.W., Washington, D.C. 20547.

This subject index fills the last remaining gap to provide complete author and subject indexes for the entire run of Mathematical Reviews from its beginnings in 1940 up through 1980. With this index together with the 1980–84 author and subject indexes now in process, readers will now be able to access fully, by both author and subject, the mathematical literature of the past 45 years.

Readers recognized the value of subject indexing with the publication of the Author and Subject Index of Mathematical Reviews 1973–1979. This initiated a retrospective subject indexing project now completed with the four-volume Subject Index of Mathematical Reviews 1959–72.

This index is ordered by the subject classification scheme in effect during 1968–72, with the 1962–67 articles having been reclassified as necessary. Under each heading, the subject index lists all items reviewed with either primary or secondary classification in the given area. Beside the first author's name are listed the title of the book or article, the language in which it was written, and its MR review number. Cross-references to these entries are provided for secondary authors. A list of entries and references by key words follows the authors in each classification.

To locate a given item, this subject index may be used in conjunction with the appropriate, previously published author indexes, which provide full bibliographic information as well as the reviewer's name.

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Pseudodifferential Operators and Applications
François Trèves, Editor
(Proceedings of Symposia in Pure Mathematics, Volume 43)

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(Proceedings of Symposia in Pure Mathematics, Volume 42)

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At the recent AMS Conference in New Orleans, we asked mathematicians to suggest complex formulas which we then typeset using **TEX**. The following was submitted by Bernard Harris, Department of Statistics, University of Wisconsin.

\[
P_{m,n,N,v}(S = j) = \binom{N}{n}^{-m} \binom{N-j}{j} \sum_{i=0}^{j} (-1)^i \binom{N-j}{i} \left[ \frac{2}{n-i} \right]^{m},
\]

\[
\text{where } j = 0, 1, \ldots, N;
m = 0, 1, \ldots;
N = 0, 1, \ldots;
n = 0, 1, \ldots, N;
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