NOTICES
OF THE
AMERICAN MATHEMATICAL SOCIETY
EDITED BY
W. T. MARTIN G. B. PRICE

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# CALENDAR OF MEETINGS

<table>
<thead>
<tr>
<th>Meeting No.</th>
<th>Date</th>
<th>Place</th>
<th>Deadline for Abstracts</th>
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<tbody>
<tr>
<td>504</td>
<td>June 19, 1954</td>
<td>Portland Ore.</td>
<td>May 6</td>
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<tr>
<td>506</td>
<td>October 30, 1954</td>
<td>Cambridge, Mass.</td>
<td>Sept. 16</td>
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<td></td>
<td>April 15–16, 1955</td>
<td>Brooklyn, New York</td>
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<td></td>
<td>November 25–26, 1955</td>
<td>Milwaukee, Wis.</td>
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<td></td>
<td>December 27–30, 1955</td>
<td>Houston, Texas</td>
<td>Nov. 14</td>
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To present a paper before a meeting of the Society, it is necessary to submit an abstract. The abstract should be addressed to the American Mathematical Society, 80 Waterman Street, Providence 6, Rhode Island.

For inclusion in the program of a particular meeting, the abstract must be received in the Providence Office not later than the deadline for abstracts, as listed above.

No individual may present more than one paper in person at any meeting of the Society. The number of papers which may be presented by title is not restricted. The presentation of a paper in person is limited to ten minutes.

Anyone who is not a member of the Society must be introduced by a member in order to present a paper either in person or by title.

Papers may not be presented if published in full prior to the Society meeting or if previously presented before any learned society except the National Academy of Sciences or the Royal Society of Canada.
FIVE HUNDRED FOURTH MEETING
Portland, Oregon
June 19, 1954

PROGRAM

The five hundred fourth meeting of the American Mathematical Society will be held at Reed College, Portland, Oregon on Saturday, June 19, 1954, following the meeting on Friday of the Pacific Northwest Section of the Mathematical Association of America.

By invitation of the Committee to Select Hour Speakers for Far Western Sectional Meetings, Professor V. L. Klee, Jr., of the University of Washington will address the Society at 2:00 P. M. His title will be Convex sets in linear spaces.

The hour speaker at the meeting of the Association on Friday will be Professor C. O. Oakley of Haverford College, who will speak on Modern mathematics for freshmen.

All meetings will be in Eliot Hall. There will be two sectional sessions at 10:00 for contributed papers and a session at 3:15 for late papers, if required, The registration desk will be in Eliot Hall near rooms 114 and 314, in which the meetings are held.

There will be a joint dinner of the Association and Society at 6:30 Friday evening.

Reed College is in the Southeast portion of the city of Portland. Travellers should make local inquiries about specific ways of reaching it. The campus facilities of swimming pool, tennis courts, and picnic grounds will be available without charge to the visitors. A public golf course adjoins the campus. Attractions in the neighboring areas include the Pacific beaches, 100 miles to the West, and Timberline Lodge on Mt. Hood, 60 miles to the East.

Visitors who wish to make reservations in advance should write to one of the Portland hotels or motels. Suggested motels are the Rose Manor Apartment Motel, 4546 S. E. McLoughlin, Maynard's Motel, 14015 S. E. McLoughlin, and El Rancho Motel, 14110 S. E. McLoughlin. Down-
town hotels suggested are the Multnomah, the Benson, and the New Heathman.

PROGRAM OF THE SESSIONS
(Time limit for contributed papers, 10 minutes)

SATURDAY, 10:00 A.M.

Session on Algebra and Number Theory, Room 114, Eliot Hall

(1) Distributive polynomial functions and the construction of rings
    Professor J. R. Byrne, San Jose State College and Professor
    R. A. Beaumont, University of Washington

(2) On the Löwenheim-Müller verification theorem
    Mr. E. A. Maier and Professor Ivan Niven, University of Oregon

(3) Period equations applied to residue difference sets
    Mrs. Emma Lehmer, Berkeley, California
    (Introduced by Professor J. W. Green)

(4) An extension of Hadamard's condition that a matrix have non-zero determinant. Preliminary report
    Professor J. L. Brenner, State College of Washington

(5) A Farey-dissection of the plane and the corresponding simultaneous-approximation algorithm
    Professor Burrowes Hunt, Reed College

(6) Remarks on powers of a rational number
    Professor D. H. Lehmer, University of California, Berkeley

(7) Principal component ideals in non-commutative rings
    Mr. W. E. Barnes, University of British Columbia

Session on Analysis and Geometry, Room 314, Eliot Hall

(8) Twisted curves and the mean-value proposition
    Professor D. B. Dekker, University of Washington

(9) Summable trigonometric series
    Professor R. D. James, University of British Columbia

(10) Some conditions ensuring absolute continuity of the mass distribution for a potential
    Professor M. G. Arsove, University of Washington

(11) On the mean value Doppler frequency spectrum of the return from a plane earth
    Professor W. M. Stone, Oregon State College and Mr. Ray Lee,
    Boeing Airplane Company
(12) On the number of singular points, located on the unit circle, of certain functions represented by \( C \)-fractions
Mr. Vilkramaditya Singh and Professor W. J. Thron, Washington University

(13) Periodic mappings on Banach algebras
Professor Bertram Yood, University of Oregon

SATURDAY 2:00 P.M.

General Session, Room 114, Eliot Hall
Convex sets in linear spaces (one hour)
Professor V. L. Klee, Jr., University of Washington

SATURDAY 3:15 P.M.

Session for Late Papers, Room 314, Eliot Hall
Program available at registration desk.

SUPPLEMENTARY PROGRAM
(To be presented by title)

(14) Analytic functions of several Banach algebra elements
Professor Richard Arens, University of California, Los Angeles and Professor A. P. Calderón, Ohio State University

(15) Primal ideals in non-commutative rings
Mr. W. E. Barnes, University of British Columbia

(16) New diophantine double and triple systems
Mr. H. W. Becker, Station WOW

(17) Latin orthotopes. Preliminary report
Mr. H. W. Becker, Station WOW

(18) Parametric solutions of \((A^4 - B^4) (C^4 - D^4) = \square(l)\)
Mr. H. W. Becker, Station WOW

(19) The forms of E. T. Bell for modified Martin trefoils and Pythagorean tetrahedrons
Mr. H. W. Becker, Station WOW

(20) A note on \( f \)-regularity in rings
Dr. R. L. Blair, University of California, Davis

(21) On lattice embeddings for partially ordered sets
Professor T. A. Botts, University of Virginia

(22) On two methods of generating solutions of linear partial differential equations by means of definite integrals
Professor J. B. Diaz and Professor G. S. S. Ludford, University of Maryland
(23) The uniform closure of the set of regular operators in a ring of operators
    Mr. Jacob Feldman and Professor R. V. Kadison, Columbia University

(24) The canonical spaces of associative algebras
    Professor S. T. Hu, Tulane University

(25) Common secants for plane convex sets
    Professor V. L. Klee, Jr., University of Washington

(26) Some topological properties of convex sets
    Professor V. L. Klee, Jr., University of Washington

(27) The Titchmarsh semi-group in Banach space
    Mr. G. L. Krabbe, University of California, Berkeley
        (Introduced by Professor C. B. Morrey, Jr.)

(28) The boundary values of pseudo-analytic functions
    Professor A. J. Lohwater, University of Michigan

(29) Stieltjes integrals in linear spaces
    Professor J. S. MacNerney, University of North Carolina

(30) A theorem on fixed points of involutions in $S^3$
    Professor Deane Montgomery and Professor Hans Samelson,
        Institute for Advanced Study

(31) Mechanisms and robots
    Professor F. J. Murray, Columbia University

(32) Hopf Theorem mod C
    Mr. F. P. Peterson, Princeton University

(33) On meromorphic functions of bounded characteristic
    Mr. D. A. Storvick, University of Michigan

(34) Connecting links between Grassmann's space analysis and integral equation theory
    Dr. A. R. Schweitzer, Lake Forest, Illinois

(35) On free products of groups
    Dr. D. H. Wagner, Massachusetts Institute of Technology

(36) Partial order and indecomposability
    Professor A. D. Wallace, Tulane University

(37) Two separation theorems
    Professor A. D. Wallace, Tulane University

(38) A note on dendrites and trees
    Dr. L. E. Ward, Jr., University of Nevada
(39) A unified theory of the radiation problem and of the Tricomi-Germain problem
   Professor Alexander Weinstein, University of Maryland

(40) Homotopy groups of joins and the groups $Aq(\pi; G)$
   Professor G. W. Whitehead, Massachusetts Institute of Technology

(41) On the homology suspension
   Professor G. W. Whitehead, Massachusetts Institute of Technology

(42) Some theorems on matrices with real quaternion elements
   Professor N. A. Wiegmann, Catholic University of America

In so far as correct information is available, the institution listed as the address of an author is that with which he is connected during the academic year, September 1, 1953 to July 1, 1954.

J. W. Green
Associate Secretary

Los Angeles, California
May 6, 1954

RESEARCH PROBLEMS

A department of Research Problems has been established in the Bulletin which will publish the statements of problems whose solution would make a significant contribution to mathematical research. Problems which are suitable for publication in the problem department of the American Mathematical Monthly will not be accepted for publication in Research Problems. Only problems whose solutions are unknown to the author should be submitted. Furthermore, the problems desired are those for which the solution will take the form of a research paper to be accepted on its merits and published in a research journal.

The readers of the Notices are invited to contribute problems. Each problem should carry the name of the author and a brief title and should be written in a single paragraph in a form similar to an abstract, and in nontechnical language if possible. Relevant references should be included. All problems intended for publication should be sent to G. B. Price, University of Kansas, Lawrence, Kansas.
The fifty-ninth summer meeting of the American Mathematical Society will be held at the University of Wyoming, Laramie, Wyoming, from Tuesday afternoon, August 31, through Friday, September 3, 1954. If the size of program warrants, the meetings will extend through Saturday morning, September 4. The meetings are in conjunction with the meetings on Monday, August 30, and Tuesday, August 31, of the Mathematical Association of America.

By invitation of the Committee to Select Hour Speakers for Annual and Summer Meetings, a number of hour addresses will be presented. The speakers will include Professors R. E. Bellman, Edwin Hewitt, R. D. James, Charles Loewner, and R. S. Phillips.

Since this meeting will be almost concurrent with the International Congress of Mathematicians to be held in Amsterdam, The Netherlands, the council has decided that no Colloquium Lectures would be scheduled.

There will be a meeting of the Council of the Society on Tuesday evening, and a Business Meeting on Wednesday or Thursday at which Amendments to the By-laws reestablishing corporate memberships will be considered.

There will be ample room accommodations in new dormitories on the campus. Further details will appear in the program of the meeting. Abstracts of contributed papers should be sent to the American Mathematical Society, 80 Waterman Street, Providence 6, Rhode Island, so as to arrive not later than the deadline, July 19.

John W. Green
Associate Secretary

Los Angeles, California
May 6, 1954
The Association has joined with the Society in the establishment of an employment register on the limited basis described below. The register will consist of a listing of open positions. The listing will be available to prospective candidates at the April, Summer, and Annual meetings. It is expected that many of the organizations listing openings will have representatives at these meetings to interview applicants.

Position descriptions should either be sent in advance of the meeting to the Associate Secretary in charge or handed in at the registration desk at the beginning of the meeting. It is not required that a position listing be in any set form, but blanks suitable for this purpose may be obtained either from the Headquarters of the Society, 80 Waterman Street, Providence 6, Rhode Island, or at the registration desk at the meeting.

No register of persons seeking positions has been established. Individuals interested in listed positions are responsible for getting in touch with employers.

One of the purposes the meetings of the Society and Association have traditionally served is that of enabling employers and candidates for positions to get together. The meetings have now become so large that it is no longer thought to be sufficient to leave the establishment of contacts entirely up to the parties directly concerned. The Employment Register has been planned to facilitate establishing such contacts with a minimum of machinery. It has been established on a trial basis. Its continuation will depend on how helpful it proves to be.

HEAT TRANSFER AND FLUID MECHANICS INSTITUTE

The Seventh Annual Heat Transfer and Fluid Mechanics Institute will be held at the University of California, Berkeley, on June 30, July 1 and 2, 1954. For further information contact H. A. Johnson, Division of Mechanical Engineering, 114 Engineering Building, University of California, Berkeley, California.
The Mathematics Division of the American Society for Engineering Education will meet at the University of Illinois, Urbana, Illinois, June 16-18, 1954.

On June 16 there will be a panel discussion on *Problems of training in the use of computing equipment*: C. V. L. Smith of the office of Naval Research, Chairman; W. G. Boghosian, University of Pennsylvania; John W. Carr, University of Michigan; W. J. Eckert, Watson Computing Laboratory; Phillip M. Morse, Massachusetts Institute of Technology; F. J. Murray, Columbia University; and J. P. Nash, University of Illinois. Attention will be devoted to the type of training that can be provided in typical engineering schools and universities.

Dr. C. V. Newsom, Associate Commissioner of Higher Education, State of New York, will give his retiring address on *The introductory college course for engineers*, Thursday, June 17.

On Thursday and Friday, there will be a number of lectures: G. B. Price, University of Kansas, *The mathematical needs of engineering students*; B. Meserve, University of Illinois, *Strengthening the teaching of mathematics in engineering schools*; Karl Menger, Illinois Institute of Technology; G. B. Thomas, Jr., Massachusetts Institute of Technology; S. W. McCuskey, Case Institute of Technology; L. W. Cohen, National Science Foundation; and J. Weyl, Office of Naval Research.

*The place of mathematical statistics and probability theory in engineering curricula* is the subject of a panel to be held Thursday: Wm. P. Pabst, Bureau of Ordnance, Navy Department, Chairman; J. H. Davidson, General Electric Company; I. Burr, Purdue University; Howard L. Jones, Illinois Bell Telephone Company.

Requests for housing should be addressed to R. K. Newton, Chairman of Registration and Housing, University of Illinois, Urbana, Illinois.

Richard S. Burington
Chairman, Mathematics Division
A. S. E. E.

1834 N. Hartford St.
Arlington 1, Virginia
National Science Foundation Postdoctoral Fellowships have been awarded to the following: G. E. Baxter, University of Minnesota; R. C. Blanchfield, Princeton University; D. A. Buchsbaum, Columbia University; C. W. Curtis, Yale University; Jacob Feldman, Columbia University; W. M. Huebsch, University of Notre Dame; A. P. Mattuck, Princeton University; J. C. Moore, Princeton University; Edgar Reich, University of California; M. F. Ruchte, University of Wisconsin; V. L. Shapiro, Institute for Advanced Study; Edwin Weiss, Massachusetts Institute of Technology.

Professor B. R. Seth of Indian Institute of Technology, Kharagpur, India, has been elected as the President of the Section of Mathematics for the forty-second session of the Indian Science Congress Association to be held in January, 1955.

Dr. W. B. Pennington of Jesus College, Cambridge University, has been appointed to a readership at Westfield College, University of London.

Dr. F. W. Brown of the Naval Ordnance Test Station, China Lake, California, has accepted a position as director of the Boulder Laboratories, National Bureau of Standards.

Dr. M. A. Dengler of the Midwest Research Institute, Kansas City, Missouri, has accepted a position as senior aerodynamicist with Northrop Aircraft, Inc., Hawthorne, California.

Professor J. C. Eaves of the Alabama Polytechnic Institute has been appointed to a professorship at the University of Kentucky.

Mr. J. J. Gehrig of the Ballistics Research Laboratories, Aberdeen Proving Ground, has accepted a position as research engineer with Northrop Aircraft, Inc., Hawthorne, California.

Dr. E. R. Johnston of the University of Minnesota has been appointed a teacher at the Wisconsin State College, Whitewater, Wisconsin.

Mr. P. W. Knaplund has accepted a position as applied science representative with the International Business Machines Corporation, Fort Worth, Texas.

Mr. H. T. LaBorde of the University of North Carolina has been appointed to an assistant professorship at the University of the South.

Dr. H. N. Laden has accepted a position as senior methods research officer with the Chesapeake and Ohio Railway Company, Cleveland, Ohio.

Professor M. M. Loève of the University of California, Berkeley,
will be on leave in Europe in 1954–55.

Professor C. B. Morrey, Jr., of the University of California, Berkeley, will be on leave at the Institute for Advanced Study in 1954–55.

Professor Zeev Nehari of Washington University has been appointed to a professorship at the Carnegie Institute of Technology.

Dr. O. T. O’Meara of Princeton University has been appointed a lecturer at the University of Otago, Dunedin, New Zealand.

Dr. N. A. Renzetti has accepted a position as physicist with the Southern California Air Pollution Foundation, Los Angeles, California.

Dr. Alice T. Schafer has been appointed to an assistant professorship at Connecticut College.

Associate Professor M. C. Sholander of Washington University has been appointed to a professorship at the Carnegie Institute of Technology.

Dr. John Wermer of Yale University has been appointed to an assistant professorship at Brown University.

The following promotions are announced:

H. P. Atkins, University of Rochester, to an associate professorship.

H. K. Brown, Northeastern University, to dean of the Graduate Division.

C. W. Curtis, University of Wisconsin, to an assistant professorship.

E. R. Immel, University of Wisconsin, to an assistant professorship.

B. B. Townsend, Louisiana State University, to an associate professorship.

E. H. Umberger, Pennsylvania State University, to an assistant professorship.

The following appointments to instructorships are announced:

Fairleigh Dickinson College: Mr. Edward Rayher; Lehigh University: Mr. S. L. Gulden; University of Minnesota: Dr. B. W. Lindgren; University of Texas: Mr. J. N. Younglove; Tri-State College: Mr. H. I. Ottoson.

Professor Fabio Conforto of the University of Rome died on February 24, 1954 at the age of forty-four years.

Professor J. L. Coolidge of Harvard University died on March 5, 1954 at the age of eighty years. He had been a member of the Society for forty-four years.

Professor J. A. Daum of the Agricultural and Mechanical College of Texas died on March 23, 1954. He had been a member of the Society for
twelve years.

Professor Emeritus Arnold Dresden of Swarthmore College died on April 10, 1954, at the age of seventy-one years. He had been a member of the Society for forty-seven years.

Professor Emeritus R. A. Johnson of Brooklyn College died on February 9, 1954 at the age of sixty-four years. He had been a member of the Society for forty years.

Mr. R. I. Piper of the Pacific Telephone and Telegraph Company, San Francisco, California, died on October 20, 1953 at the age of fifty-one years.

INTERNATIONAL CONGRESS OF MATHEMATICIANS 1954

General Information

The International Congress of Mathematicians will convene in Amsterdam, the Netherlands, from September 2nd to September 9th, 1954, under the auspices of Het Wiskundig Genootschap (the Mathematical Society of the Netherlands). The Congress will be open to all mathematicians.

The scientific program will include plenary sessions at which one hour invited addresses will be presented and sectional sessions in algebra and the theory of numbers, analysis, geometry and topology, probability and statistics, mathematical physics and applied mathematics, logic and foundations, and philosophy, history and education. The program of the sectional sessions will include half hour invited addresses and fifteen minute papers contributed by members of the Congress. A number of events, including several excursions, are being planned for entertainment.

Inquiries concerning the Congress should be addressed: Secretariat, International Congress of Mathematicians 1954, 2d Boerhaavestraat 49, Amsterdam, The Netherlands.
NEW PUBLICATIONS


Bopp, F. See Sommerfeld, A.


Corlett, W. J. See Stone, R.


Friedman, M. D. See Byrd, P. F.


Hurstfield, R. See Stone, R.

Meixner, J. See Sommerfeld, A.


Potter, M. See Stone, R.

Radok, J. R. M. See Muskhelishvili, N. I.


Rowe, D. A. See Stone, R.


Szegö, G. See Pólya, G.


Turán, P. *Eine neue Methode in der Analysis und deren Anwendungen*. Budapest, Akadémiai Kiadó, 1953. 196 pp. 80.00 Ft.


Vidal Abascal, E. *Calculo de orbitas de estrellas dobles visuales*. (Monografias de Astronomia y Ciencias Afines, no. 1.) Santiago, Consejo Superior de Investigaciones Cientificas, 1953. 218 pp. 1 plate.


