SEVERAL COMPLEX VARIABLES
CONTENTS

Preface ......................................................................................................................... ix

Noncompact Complex Manifolds

Nonlinear Cauchy-Riemann equations and q-convexity ............................................. 3
By RICHARD F. BASENER

Homomorphisms into analytic rings ........................................................................... 7
By JOSEPH A. BECKER and WILLIAM R. ZAME

Continuation of smooth holomorphic functions over analytic hypersurfaces .......... 11
By ERIC BEDFORD

The Levi problem in holomorphic bundles with compact fibre .................................. 15
By JÉRÔME BRUN

Properties of pseudoconvex domains with smooth boundaries ................................. 17
By KLAS DIEDERICH and JOHN ERIK FORNAESS

Kähler manifolds and the Levi problem ....................................................................... 21
By G. ELENCWAJG

The holomorphic convexity of pseudoconvex complex manifolds .............................. 25
By ALAN T. HUCKLEBERRY

Hölder estimates for \( \bar{\partial} \) on convex domains in \( \mathbb{C}^2 \) with real analytic boundary ...... 31
By R. MICHAEL RANGE

Lefschetz theorems and a vanishing theorem of Grauert-Riemenschneider ................ 35
By MICHAEL SCHNEIDER

Embedding strongly (1, 1)-convex-concave spaces in \( \mathbb{C}^N \times \mathbb{P}_M \) .................... 41
By ALESSANDRO SILVA

The Levi problem ......................................................................................................... 45
By YUM-TONG SIU

On holomorphic jet bundles .......................................................................................... 49
By ANDREW JOHN SOMMSE

On the classification of holomorphically convex spaces ............................................... 53
By VO VAN TAN
CONTENTS

Poincaré theta series and $L_1$ cohomology ................................................................. 59
By R. O. Wells, Jr. and Joseph A. Wolf

Principal Lecture 4

Analysis on noncompact Kähler manifolds ............................................................... 69
By R. E. Greene and H. Wu

Differential Geometry and Complex Analysis

Moving frames in Hermitian geometry ........................................................................ 103
By Simone Dolbeault

Local invariants of real and complex Riemannian manifolds .................................... 107
By Peter B. Gilkey

Function theory on complete open Hermitian manifolds .......................................... 111
By Paul Klembeck

The question of holomorphic carriers .......................................................................... 115
By H. Blaine Lawson, Jr.

Deformations of strongly pseudoconvex domains in $\mathbb{C}^2$ .................................. 125
By R. O. Wells, Jr.

The behavior of the infinitesimal Kobayashi pseudometric in deformations and on algebraic manifolds of general type ................................................................. 129
By Marcus W. Wright

Curvature of complex submanifolds of $\mathbb{C}^n$ ......................................................... 135
By Paul Yang

Principal Lecture 5

Real hypersurfaces in complex manifolds ..................................................................... 141
By D. Burns, Jr. and S. Shnider

Problems in Approximation

Proper holomorphic mappings of bounded domains .................................................... 171
By H. Alexander

A property of unions of admissible domains ............................................................... 175
By N. Kerzman

Approximation theory on CR submanifolds ................................................................. 181
By Jeffrey Nunemacher

Uniform approximation and the Cauchy-Fantappie integral ..................................... 187
By Barnett M. Weinstock

Uniform algebras on plane domains ............................................................................. 193
By William R. Zame

Principal Lecture 6

Power series methods in deformation theory ............................................................. 199
By Otto Forster
Contents

Value Distribution Theory
Separate analyticity, separate normality, and radial normality for mappings... 221
By Theodore J. Barth
A result on the value distribution of holomorphic maps $f: \mathbb{C}^n \to \mathbb{C}^n$ ........... 225
By James A. Carlson
Operator theory and complex geometry............................................................... 229
By Michael J. Cowen and Ronald G. Douglas
A unicity theorem for equidimensional holomorphic maps......................... 237
By S. J. Drouilhet
Meromorphic mappings into compact complex spaces of general type........... 239
By Peter Kiernan
Real and semireal zeros of entire functions in $\mathbb{C}^n$ ............................ 245
By Pierre Lelong
A defect relation on Stein manifolds.............................................................. 251
By John Murray
On holomorphic curves in algebraic varieties with ample irregularity........... 255
By Takushiro Ochiai
Value distribution on parabolic spaces......................................................... 259
By Wilhelm Stoll
On the equidistribution theory of holomorphic maps..................................... 265
By Chia-Chi Tung

Group Representation and Harmonic Analysis
Theta functions with characteristic, and distinguished subspaces of the Heisenberg
manifold ............................................................................................................ 273
By Louis Auslander
The complex-analytic extension of the Fourier series on Lie groups............. 279
By Luis A. Frota-Mattos
Analysis on matrix space and certain Siegel domains................................. 283
By Kenneth I. Gross and Ray A. Kunze
Boundary behaviour of holomorphic functions on bounded symmetric domains... 291
By Adam Korányi
Rankin-Selberg method in the theory of automorphic forms........................ 297
By I. I. Pyatetskii-Shapiro and M. E. Novodvorský
Tangential Cauchy-Riemann equations associated with a Siegel domain....... 303
By Hugo Rossi and Michele Vergne
On symmetric and quasi-symmetric Siegel domains..................................... 309
By Ichiro Satake
Complex homogeneous bundles and finite-dimensional representation theory... 317
By Floyd L. Williams

Author Index..................................................................................................... 321
These proceedings are dedicated to

Lillian Casey

who was the guiding force

behind six years of AMS meetings
PREFACE

The American Mathematical Society held its twenty-third Summer Research Institute at Williams College, Williamstown, Massachusetts, from July 28 to August 15, 1975. Several Complex Variables was selected as the topic for the institute. Members of the Committee on Summer Institutes at the time were Louis Auslander (chairman), Richard E. Bellman, S. S. Chern, Richard K. Lashof, Walter Rudin, and John T. Tate. The institute was supported by a grant from the National Science Foundation.

ORGANIZATION. The Organizing Committee for the institute consisted of Ian Craw, Hans Grauert, Robert C. Gunning (cochairman), David Lieberman, James Morrow, R. Narasimhan, Hugo Rossi (cochairman), Yum-Tong Siu, and R. O. Wells, Jr. (Editor of these PROCEEDINGS).

PROGRAM. The topic of the 1975 summer institute was the theory of functions of several complex variables. The emphasis in arranging the program was on the more analytical aspects of that subject, with particular attention to the relations between complex analysis and partial differential equations, to the properties of pseudo-convexity and of Stein manifolds, and the relations between currents and analytic varieties. However, there were also lectures and seminars on other aspects of that broad and active field of investigation, such as deformation theory, singularities of analytic spaces, value distribution theory, compact complex manifolds, and approximation theory.

There were six series of invited expository lectures, as well as twenty-two hour lectures of a general or survey nature; there were also eight series of seminars on current developments in the subject, six of which were planned and partially arranged in advance.

PRINCIPAL LECTURE SERIES.

- Chern-Moser invariants by Daniel M. Burns, Jr. and Steven Shnider (2 lectures);
- Power series methods in deformation theorems by Otto Forster (5 lectures);
- Holomorphic chains and their boundaries by Reese Harvey (4 lectures);
Methods of PDE in complex analysis by Joseph J. Kohn (5 lectures);
Tangential Cauchy-Riemann equations by Masatake Kuranishi (3 lectures);
Analysis on noncompact Kähler manifolds by Hung-Hsi Wu and Robert E. Greene (4 lectures).

HOUR LECTURES.
Theta functions with characteristic and distinguished subspaces of the Heisenberg manifold by Louis Auslander;
Hardy spaces and local estimates on boundaries of strongly pseudo-convex domains. I by Ronald Coifman;
Some recent developments in the theory of the Bergman kernel function. A survey by Klas Diederich;
Fibering of residual currents by Miguel Herrera;
The Monge-Ampere equation and complex analysis by Norbert Kerzman;
Stable homology and positive currents on abelian varieties by H. Blaine Lawson, Jr.;
A method of inverse functions for plurisubharmonic functions; applications to positive and closed currents by Pierre Lelong;
Holomorphic vector fields on projective varieties by David Lieberman;
Diffusion estimates in complex analysis by Paul Malliavin;
Rational singularities, Moisheson spaces, and compactifications of $C^3$ by James A. Morrow;
Rankin-Selberg method in the theory of automorphic forms by Mark Novodvorsky;
Hardy spaces and local estimates on boundaries of strongly pseudo-convex domains. II by Richard Rochberg;
Analysis of the boundary Laplacian and related hypoelliptic differential operators by Linda Rothschild;
Classification of quasi-symmetric domains by Ichiro Satake;
The Levi problem by Yum-Tong Siu;
Boundary values of the solutions of the $\bar{\partial}$ equation and characterization of zeros of functions in the Nevanlinna class by Henri Skoda;
Value distribution on parabolic spaces by Wilhelm Stoll;
Extending functions from submanifolds of the boundary by Edgar L. Stout;
Equisingularity and local analytic geometry by J. Stutz;
Constructability by Jean-Louis Verdier;
Boundary values of holomorphic functions on a Siegel domain and Cauchy-Riemann tangential equations by Michelle Vergne;
Deformations of strongly pseudoconvex domains in $C^2$ by R. O. Wells, Jr.

SEMINAR SERIES.
(1) Singularities of analytic spaces (Egbert Brieskorn, chairman);
(2) Function theory and real analysis (Stephen Greenfield, chairman);
(3) $q$-convexity and noncompact manifolds (Yum-Tong Siu, chairman);
(4) Value distribution theory in several variables (Wilhelm Stoll, chairman);
(5) Compact complex manifolds (A. Van de Ven, chairman);
(6) Problems in approximation (John Wermer, chairman);
(7) Group representations and harmonic analysis (Kenneth I. Gross, chairman);
(8) Differential geometry and complex variables (Peter Gilkey, chairman).
SUMMARY. The broad areas emphasized by this summer institute can be summarized as follows:

The $\bar{\partial}$-equation. The relation between complex analysis and partial differential equations centers about the Cauchy-Riemann or $\bar{\partial}$-equations. Kohn gave a series of lectures which provided a survey of the role of the $\bar{\partial}$-equations. Several lectures and seminar talks were devoted to the regularity up to the boundary of solutions of the $\bar{\partial}$-equation, with applications to complex analysis. The structure imposed by the $\bar{\partial}$-equation on the smooth boundary of a region in $\mathbb{C}^n$ was discussed in several seminars as well. Most lectures on these topics were in the seminars led by S. Greenfield and Y.-T. Siu.

Holomorphic chains. Reese Harvey gave a survey of the characterization of holomorphic chains and their boundaries among other currents, with a number of applications to classical problems in complex analysis; other lectures discussed recent research on holomorphic chains, which includes, for instance, value distribution theory.

Differential geometry. R. E. Greene and H. Wu gave a survey of the characterization of Stein manifolds by curvature conditions on an underlying Kähler metric. A seminar was organized by P. Gilkey on differential geometry and complex analysis in an extension of this. The survey lectures by D. M. Burns, and S. Shnider discussed recent developments in the theory of higher order invariants associated to real hypersurfaces in $\mathbb{C}^n$.

Singularities. A seminar led by E. Brieskorn was devoted to the singularities of analytic spaces, with an emphasis on the complex analytic properties rather than the algebraic properties treated in the preceding summer institute on algebraic geometry.

Value distribution theory. Wilhelm Stoll lectured on general value distribution theory and led a seminar in which a number of recent developments in this area were discussed.

Compact complex manifolds. A number of analytic results on compact manifolds were discussed in a seminar led by A. Van de Ven.

Approximation theory. While no attempt was made to cover recent developments in complex analysis and function algebras, there was some discussion of approximation theory in a seminar led by J. Wermer.

Harmonic analysis. Symmetric spaces and boundaries of homogeneous domains have been much investigated in complex analysis and lead quite naturally to recent work on group representation and harmonic analysis, some of which was discussed in a seminar led by K. Gross.

PROCEEDINGS. The proceedings of the 1975 summer institute are published here in two volumes. The hour lectures and seminar papers accepted for publication appear in the seminar series most appropriate to the subject matter of the given paper. These are principally research reports describing current research of the authors, while some are of a general expository nature in a given area. The principal lecture series are represented by six survey articles which have been interlaced in these volumes with the seminar series, with an attempt being made for some relationship between the seminar series and the survey articles they juxtapose.

Volume 1: Seminar Series: Singularities of Analytic Spaces

Principal Lecture 1: M. Kuranishi
Seminar Series: Function Theory and Real Analysis
Principal Lecture 2: J. J. Kohn

Seminar Series: Compact Complex Manifolds
Principal Lecture 3: Reese Harvey

Volume 2: Seminar Series: Noncompact Complex Manifolds
Principal Lecture 4: R. Greene and H. Wu

Seminar Series: Differential Geometry and Complex Analysis
Principal Lecture 5: D. Burns, Jr., and S. Shnider

Seminar Series: Problems in Approximation
Principal Lecture 6: O. Forster

Seminar Series: Value Distribution Theory
Seminar Series: Group Representation and Harmonic Analysis

The detailed list of authors and titles of papers is given in the table of contents for each volume. At the conclusion of each volume is an author index for authors of articles, as well as authors of papers cited in the bibliographies for each particular part.

R. O. Wells, Jr.
Houston, Texas
May 1976
### AUTHOR INDEX

I or II indicates in which part of this volume the pages occur.

Roman numbers refer to pages on which a complete reference to a work by the author is given.

**Boldface numbers** indicate the first page of the articles in each part of this volume.

<table>
<thead>
<tr>
<th>Author</th>
<th>Volume, Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A'Campo, N.</td>
<td>I, 62</td>
</tr>
<tr>
<td>Ahiezer, D. N.</td>
<td>II, 320</td>
</tr>
<tr>
<td>Ahlfors, L. V.</td>
<td>II, 216, 254</td>
</tr>
<tr>
<td>Aïrault, H.</td>
<td>I, 184</td>
</tr>
<tr>
<td>Akao, K.</td>
<td>I, 275</td>
</tr>
<tr>
<td>Aleksandrov, A. D.</td>
<td>I, 112</td>
</tr>
<tr>
<td>Alexander H.</td>
<td>I, 151, 166, 380; II, 167, 171, 174, 224</td>
</tr>
<tr>
<td>Allard, W. K.</td>
<td>I, 380</td>
</tr>
<tr>
<td>Allendoerfer, C. B.</td>
<td>I, 260</td>
</tr>
<tr>
<td>Andrianov, A. N.</td>
<td>II, 301</td>
</tr>
<tr>
<td>Arnol'd, V. I.</td>
<td>I, 43, 62, 271</td>
</tr>
<tr>
<td>Aronszajn, N.</td>
<td>I, 137; II, 47</td>
</tr>
<tr>
<td>Artin, M.</td>
<td>I, 43, 48, 75, 93, 245, 300; II, 216</td>
</tr>
<tr>
<td>Atiyah, M. F.</td>
<td>I, 254; II, 124</td>
</tr>
<tr>
<td>Auslander, Louis</td>
<td>I, 275; II, 273, 276, 277</td>
</tr>
<tr>
<td>Ax, J.</td>
<td>II, 258</td>
</tr>
<tr>
<td>Baily, W. L., Jr.</td>
<td>II, 65</td>
</tr>
<tr>
<td>Baouendi, M. S.</td>
<td>I, 211</td>
</tr>
<tr>
<td>de la Barrière, Ph. Pallu</td>
<td>I, 192</td>
</tr>
<tr>
<td>Barth, Theodore J.</td>
<td>II, 221, 224</td>
</tr>
<tr>
<td>Barth, W.</td>
<td>II, 39, 58</td>
</tr>
<tr>
<td>Barthel, Gottfried</td>
<td>I, 263, 271</td>
</tr>
<tr>
<td>Basener, Richard F.</td>
<td>II, 3, 5</td>
</tr>
<tr>
<td>Beals, R.</td>
<td>I, 202</td>
</tr>
<tr>
<td>Beauville, A.</td>
<td>I, 18</td>
</tr>
<tr>
<td>Becker, Joseph</td>
<td>I, 3, 9, 84; II, 7</td>
</tr>
<tr>
<td>Bedford, Eric</td>
<td>I, 109, 166; II, 5, 11</td>
</tr>
<tr>
<td>Beers, B. L.</td>
<td>II, 282</td>
</tr>
<tr>
<td>Behnke, H.</td>
<td>II, 19</td>
</tr>
<tr>
<td>Berger, R.</td>
<td>I, 9</td>
</tr>
<tr>
<td>Bergman, S.</td>
<td>I, 137, 151</td>
</tr>
<tr>
<td>Bernštejn, I. N.</td>
<td>I, 9, 35</td>
</tr>
<tr>
<td>Bers, L.</td>
<td>I, 166, 180; II, 9, 216</td>
</tr>
<tr>
<td>Bialynicki-Birula, A.</td>
<td>I, 275</td>
</tr>
<tr>
<td>Bishop, Errett</td>
<td>I, 380; II, 124, 196</td>
</tr>
<tr>
<td>Björk, J. E.</td>
<td>I, 35</td>
</tr>
<tr>
<td>Blanchard, A.</td>
<td>I, 295</td>
</tr>
<tr>
<td>Bloch, A.</td>
<td>II, 258</td>
</tr>
<tr>
<td>Bloom, Thomas</td>
<td>I, 9, 18, 115, 117, 260; II, 168</td>
</tr>
<tr>
<td>Boas, R. P., Jr.</td>
<td>II, 281</td>
</tr>
<tr>
<td>Bochner, S.</td>
<td>I, 192, 380; II, 124, 128, 137</td>
</tr>
</tbody>
</table>
AUTHOR INDEX

Bombieri, E., I, 380
Borel, A., I, 18; II, 65, 320
Bott, R., I, 292; II, 65, 234, 320
Bourbaki, N., I, 43, 70
Boutet de Monvel, L., I, 106, 175, 202, 237; II, 167
Brainçon, J., I, 84
Bramble, C. C., I, 70
Braun, H., II, 314
Bredon, G., I, 260
Bremermann, H. J., I, 112, 184; II, 48
Brenton, Lawrence, I, 48, 241
Brezin, J., II, 276
Brieskorn, E., I, 9, 35, 43, 48, 63, 67, 70, 93
Brou, Robert, II, 133
Brown, A. B., II, 224
Brown, W. C., I, 9
Brun, Jérôme, I, 247; II, 15, 16
Buck, R. C., II, 281
Burns, D., I, 93
Burns, D., Jr., I, 137; II, 128, 141, 167, 174
Calabi, E., II, 39, 99, 105, 137, 234
Carathéodory, C., I, 151
Carleman, T., II, 184
Carleson, Lennart, II, 227
Carlson, James, A., I, 156; II, 225, 227, 238, 263
Carrell, J. B., I, 251, 254, 275, 276
Cartan, E., II, 128, 167
Cartan, H., II, 238
Cheeger, J., II, 99, 114
Chern, S. S., I, 112, 137, 147; II, 105, 110, 128, 137, 167, 174, 234, 268
Chevalley, C., II, 224, 320
Christoffers, H., I, 137
Čírka, E. M., II, 19, 174, 179
Clemens, C. H., I, 30, 306
Coble, A. B., I, 70
Coifman, R. R., I, 119, 121
Coleff, N., I, 11
Commmichau, M., II, 216
Cornalba, Maurizio, II, 124, 227
Cowen, Michael J., II, 105, 229, 234, 268
Diebiard, A., I, 184, 185
Deligne, P., I, 35
Demazure, M., II, 320
Derridj, M., I, 123, 126, 210, 237
Diederich, Klas, I, 127, 137, 151; II, 13, 17, 19, 48, 167
Dieudonné, J., I, 56
Docquier, F., II, 22, 48, 65, 99
Dolbeault, Pierre, I, 18, 255, 260; II, 320
Dolbeault, Simone, II, 103
Donin, I. F., II, 216
Dorfmieister, J., II, 315
Douady, A., I, 89, 300; II, 216
Douglas, Ronald G., II, 229
Dratg, A. J., II, 282
Draper, R., I, 380
Drouilhet, S. J., II, 237
Duistermaat, J. J., I, 202
Durfee, A., I, 63
Du Val, P., I, 70
Eberlein, P., II, 99
Eckmann, B., II, 99
Edwards, R. E., II, 10, 282
Eells, J., I, 260
Ehrenpreis, L., I, 236, 380
Eilenberg, S., II, 320
Eisenman, D. A., see Pelles
Elencwajg, G., II, 16, 21, 22, 99
Ellis, David, I, 139, 140, 156
Elzein, F., I, 18
Ephraim, Robert, I, 21, 23
Eto, S., II, 44

Fages, F., II, 250
Federer, H., I, 18, 380; II, 124
Fefferman, Charles, I, 121, 137, 151, 166, 237; II, 128, 167, 174
Fichera, G., I, 380
Fischer, G., II, 48
Fleming, W. H., I, 380; II, 124
Folland, G. B., I, 126, 137, 184, 192, 202, 210, 236
Fornaess, John Erik, I, 166; II, 13, 17, 19, 48, 174, 191
Forster, Otto, I, 89, 106, 300; II, 10, 199, 216
Frankel, T., I, 254; II, 39
Freeman, Michael, I, 141, 147; II, 191
Freitag, E., I, 43
Frota-Matos, Luis A., II, 279, 281
Fujimoto, H., II, 238
Fujita, R., II, 16, 23
Gabrielov, A. M., I, 43, 63
Gaffney, M. P., II, 99
Gamelin, T. W., II, 196
Gaveau, B., I, 184, 185
Gelbart, S., II, 290
Gel'fand, I. M., I, 9; II, 290, 301
Gel'fand, S. I., I, 9
Gilkey, Peter B., II, 107, 110
Gindikin, S. G., II, 315
Gluck, H., I, 112
Gordon, Gerald Leonard, I, 25, 30, 260
Goulaouic, C., I, 211
Graev, M. I., II, 290, 301
Graham, Ian, I, 117, 149, 151; II, 168, 174
Green, L., I, 275
Green, Mark, II, 133
Greene, R. E., II, 69, 99, 114, 137
Greenfield, S. J., I, 160; II, 184
Greiner, P. C., I, 118, 202, 236, 237
Greuel, G.-M., I, 63
Gromoll, D., II, 99, 114
Gross, Kenneth I., II, 283, 290
Grothendieck, A., I, 56, 94; II, 216
Grušin, V. V., I, 202
Gunning, R. C., I, 56, 84, 166, 380; II, 5, 10, 58, 174, 224, 320
Gusein-Zade, S. M., I, 63
Haefliger, A., I, 18
Hahn, F., I, 275
Hall, R., I, 276
Hamilton, Richard, I, 106, 175; II, 128
Hamm, Helmut A., I, 31, 35, 63
Hardt, R. M., I, 18
Harish-Chandra, II, 66, 290
Hartman, P., II, 5
Hartogs, F., II, 224
Hartshorne, R., I, 18, 56, 94, 292; II, 39, 52
Harvey, Reese, I, 160, 192, 261, 309, 380, 381; II, 124, 184, 191
Hecht, H., II, 66
Hecke, E., II, 301
Hefez, A., I, 63
Helgason, S., II, 99
Henkin, G. M., I, 151, 166, 180, 382; II, 33, 174
Herrera, M. E., I, 11, 18, 260; II, 250
Hilbert, D., I, 89
Hill, C. Denson, I, 139, 140, 153, 156, 160, 192, 237; II, 308
Hironaka, H., I, 48, 260
Hirschowitz, A., II, 16, 23, 48
Hirzebruch, F., I, 43, 48, 63; II, 124, 320
Hochschild, G., II, 320
Hochster, M., I, 9
Hörmander, L., I, 106, 126, 137, 152, 180, 192, 202, 203, 236, 381; II, 48, 99, 174, 179, 184, 191
Horowitz, C., I, 121
Horrocks, G., II, 58
Howard, A., I, 254, 276; II, 258
Huber, A., II, 99
Huckleberry, Alan T., II, 25, 29
Huikeshoven, F., I, 75
Humphreys, J., II, 320
Hunt, L. R., I, 157, 160, 192
Husemoller, D., I, 283
Iitaka, S., I, 287
Iss'sa, H., II, 10
Jacquet, H., II, 301
Jaffee, M., I, 9
John, F., I, 166, 180
Kajdan, D. I., II, 301
Kalka, M., II, 5
Kantor, J. M., I, 9
Karras, Ulrich, I, 37, 43
Kas, A., I, 43, 56
Kashiwara, M., I, 192, 211
Kato, M., I, 271
Katz, N. M., I, 94
Kauffman, L., I, 63
Kaup, Ludger, I, 263, 271
Kaup, W., II, 314
Kawai, T., I, 192, 211
Kazama, H., II, 44
Kazlow, Michael, I, 153, 156; II, 308
Kempf, G., I, 30, 56
Kervaire, M. A., I, 283
Kerzman, N., I, 137, 161, 180, 237; II, 33, 175
Kiehl, R., I, 9, 43
Kiernan, Peter, II, 239
King, James R., I, 18, 260, 380, 381; II, 124, 227, 263, 268
Kirby, D., I, 48
Kiremidjian, Garo K., I, 169, 175; II, 128
Kiselman, C. O., II, 16, 23
Kleiman, S., I, 56
Klembeck, Paul F., II, 99, 111, 114
Knapp, A. W., I, 203, 380; II, 290
Knorr, K., I, 89, 300; II, 216
Kobayashi, S., I, 137, 152, 254, 276; II, 52, 99, 106, 133, 167, 224, 244
Kodaira, K., I, 245, 300; II, 48, 100, 124, 133, 216, 244
Koecher, M., II, 314
Kohn, J. J., I, 106, 117, 126, 137, 140, 175, 192, 202, 203, 210, 211, 215, 236, 237; II, 13, 33
Komatsu, H., I, 192
Königsberger, K., II, 48
Koopman, B. O., II, 224
Korányi, Adam, I, 121, 184, 236; II, 66, 174, 179, 291, 294, 295, 314
Kosniowski, C., I, 276
Kostant, B., II, 320
Kra, I., II, 10
Kulkarni, R., II, 110
Kumpera, A., II, 52
Kunz, E., I, 9
Kunze, Ray A., II, 283, 290
Kuranishi, Masatake, I, 97, 106, 175, 300; II, 128, 133, 216
Kwack, M. H., II, 244
Laksov, D., I, 56
AUTHOR INDEX

Oka, M., I, 63, 271; II, 48
Okamoto, K., II, 290
Oleñik, O. A., I, 203
O'Neill, B., II, 99
Ono, I., I, 49
Orlik, P., I, 30, 49, 57, 63, 271
Osgood, W. F., II, 224
Painlevé, P., I, 276
Palamodov, V. P., I, 49, 63
Pelles, D. A., II, 133, 174, 243
Pflug, P., II, 48
Pham, F., I, 64, 84
Phelps, R., I, 381
Pinčuk, S. J., II, 174
Pinkham, H. C., I, 43, 49, 65, 67, 69, 70
Plemelj, J., I, 381
Pogorelov, A. V., I, 112, 167
Poincaré, H., II, 128
Polking, John C., I, 160, 187, 192, 243
Poly, Jean, I, 18, 255, 260
Pontryagin, L. S., I, 283
Potters, J., I, 276
Pourcin, G., I, 300; II, 216
Prill, D., I, 67
Putz, R., II, 179
Pyatetskii-Shapiro, I. I., II, 297, 301, 315
Rabinowitz, P., II, 13
Radkevič, E. V., I, 203
Ramanan, S., II, 320
Ramanujan, C. P., I, 48
Ramírez de Arellano, E., II, 33
Ramis, J. P., I, 19; II, 44, 58
Randell, R., I, 57, 63, 64
Range, R. Michael, II, 31, 33, 185
Rankin, R. A., II, 301
Rapaport, M., I, 93
Rauch, H. E., II, 216, 277
Reckziegel, H., II, 224
Reiffen, H.-J., I, 152
Remmert, R., I, 246, 381; II, 52, 174, 224
de Rham, G., I, 260; II, 124
Riemann, B., I, 300; II, 217
Riemenschneider, Oswald, I, 43, 49, 67, 73, 75, 94, 288; II, 39, 48
Rischel, H., II, 174
Rochberg, R., I, 119, 121; II, 100
Romanov, A. V., II, 33
Ronkin, L. I., II, 250
Rosenlicht, M., I, 276
Rossi, H., I, 48, 84, 106, 156, 166, 175, 184, 192, 236, 245, 380, 381; II, 5, 10, 19, 44, 58, 168, 174, 224, 290, 303, 308, 320
Roth, L., I, 276
Rothschild, Linda Preiss, I, 195, 203, 236
Rothstein, W., I, 381; II, 5
Royden, H. L., I, 152; II, 10, 133, 134, 196
Rudin, W., II, 10, 174
Ruget, G., I, 18, 19; II, 58
Saiio, K., I, 43, 64, 71, 75
Sakane, Y., I, 295
Sally, P. J., Jr., II, 290
Samuel, P., I, 10, 49, 288
Sario, L., II, 100
Satake, Ichiro, II, 294, 309, 315
Sato, M., I, 192, 211, 236
Schapira, P., I, 193
Schaps, M., I, 51, 56
Schechter, M., I, 166, 180
Scheja, G., I, 10
Schlessinger, M., I, 43, 56, 67, 301; II, 216, 217
Schmid, E. M., II, 238
Schmid, W., I, 306; II, 66, 320
AUTHOR INDEX

Lamotke, K., I, 63
Landucci, Mario, I, 177, 180
Lang, S., II, 124, 290
Langlands, R. P., II, 301
Larsen, M. E., II, 39
Laufer, Henry B., I, 43, 45, 48
Lawson, H. Blaine, Jr., I, 192, 380, 381; II, 115, 124
Lazzeri, F., I, 63
Lê Dung Tráng, I, 48, 63
Lebowitz, A., II, 277
Lelong, Pierre, I, 112, 381; II, 13, 245, 250
Levine, Harold I., I, 112
Lewy, H., I, 192, 236, 381
Lichtenbaum, S., II, 216
Lieb, I., II, 33
Lieberman, David I., I, 18, 251, 254, 273, 276, 287; II, 44
Lipman, J., I, 9
Loday, M., I, 56
Loos, O., II, 315
Maass, M., II, 301
Malgrange, B., I, 9, 30, 34, 381; II, 52
Malliavin, Paul, I, 181, 184, 185
Mandelbaum, R., I, 51, 277
Manin, Ju. I., I, 70
Martinelli, E., I, 381
Mather, J., I, 84
Matsugu, Y. II, 16
Matsumura, H., I, 276
Matsusaka, T., II, 124
Matsushima, Y., I, 276; II, 48, 258, 314
Mayer, K. H., I, 63
Mazet, E., I, 184
Miller, E., II, 110
Milnor, J., I, 48, 63, 271, 283
Moen, S., I, 9
Moishezon, B. G., I, 245, 277, 287
Moore, C. C., II, 294
Morimoto, A., II, 48, 168
Morrey, C. B., I, 126, 211
Morrow, James A., I, 241, 245; II, 100
Moser, J. K., I, 106, 137, 147, 175; II, 128, 167, 174
Mount, K., I, 9
Mumford, D., I, 56, 67; II, 58
Murakami, S., II, 314
Murray, John, II, 251
Nachbin, L., II, 282
Nagano, T., II, 168
Nagata, M., I, 70
Nakai, M., II, 10, 100
Nakai, Y., I, 9
Nakajima, K., II, 315
Nakamura, I., I, 288, 295
Nakano, S., II, 39
Narasimhan, M. S., II, 133
Narasimhan, R., I, 18, 381; II, 16, 44, 47, 48, 58, 100, 196
Naruki, I., I, 118, 137; II, 168
Nastold, H.-J., I, 9
Nevanlinna, R., II, 238
Newlander, A., II, 133
Nirenberg, L., I, 112, 126, 140, 166, 175, 211, 236, 237, 300; II, 5, 133, 216
Nirenberg, R., II, 29, 184, 191
Nishino, T., II, 224
Noether, M., I, 300
Nomizu, K., II, 99, 106
Norguet, F., I, 18; II, 48, 65
Novodvorsky, M. E., II, 297, 301
Nunemacher, Jeffrey, II, 181
Ochiai, Takushiro, II, 52, 133, 168, 244, 255, 258, 314
Oeljeklaus, E., I, 276
Ogus, A., I, 94
<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schneider, M.</td>
<td>II, 35, 39</td>
</tr>
<tr>
<td>Schuster, H. W.</td>
<td>I, 301; II, 217</td>
</tr>
<tr>
<td>Seabury, C.</td>
<td>I, 140</td>
</tr>
<tr>
<td>Sebastiani, M.</td>
<td>I, 30, 35, 64</td>
</tr>
<tr>
<td>Seeley, R. T.</td>
<td>II, 282</td>
</tr>
<tr>
<td>Segal, I. E.</td>
<td>II, 290</td>
</tr>
<tr>
<td>Seidenberg, A.</td>
<td>I, 9</td>
</tr>
<tr>
<td>Selberg, A.</td>
<td>II, 301</td>
</tr>
<tr>
<td>Sernesi, E.</td>
<td>I, 285, 287</td>
</tr>
<tr>
<td>Sere, J.-P.</td>
<td>I, 49, 203, 236, 249, 261, 381; II, 48, 320</td>
</tr>
<tr>
<td>Severi, F.</td>
<td>I, 276</td>
</tr>
<tr>
<td>Shale, D.</td>
<td>II, 290</td>
</tr>
<tr>
<td>Shiffman, Bernard</td>
<td>I, 261, 380, 381; II, 124, 227</td>
</tr>
<tr>
<td>Shnider, S.</td>
<td>I, 137; II, 128, 141, 167, 174</td>
</tr>
<tr>
<td>Sibony, N.</td>
<td>II, 13</td>
</tr>
<tr>
<td>Siegel, C. L.</td>
<td>II, 301</td>
</tr>
<tr>
<td>Siersma, D.</td>
<td>I, 44, 64</td>
</tr>
<tr>
<td>Silva, Alessandro</td>
<td>II, 41</td>
</tr>
<tr>
<td>Simha, R. R.</td>
<td>II, 133</td>
</tr>
<tr>
<td>Simis, A.</td>
<td>I, 249</td>
</tr>
<tr>
<td>Simons, J.</td>
<td>I, 381; II, 124</td>
</tr>
<tr>
<td>Singer, I. M.</td>
<td>II, 110</td>
</tr>
<tr>
<td>Siu, Yum-Tong</td>
<td>I, 44, 49, 112, 180, 306, 381; II, 33, 44, 45, 48, 58, 185</td>
</tr>
<tr>
<td>Skoda, H.</td>
<td>I, 382</td>
</tr>
<tr>
<td>Skwarczyński, M.</td>
<td>I, 137</td>
</tr>
<tr>
<td>Sommese, Andrew John</td>
<td>I, 254, 289, 292; II, 49, 52</td>
</tr>
<tr>
<td>Sorani, G.</td>
<td>II, 58</td>
</tr>
<tr>
<td>Spallek, K.</td>
<td>II, 13</td>
</tr>
<tr>
<td>Speder, J. P.</td>
<td>I, 84</td>
</tr>
<tr>
<td>Spencer, D. C.</td>
<td>I, 300, 301; II, 52, 124, 216</td>
</tr>
<tr>
<td>Stehlé, J.-L.</td>
<td>II, 19, 48</td>
</tr>
<tr>
<td>Stein, E. M.</td>
<td>I, 121, 184, 202, 203, 210, 236, 237; II, 174, 179, 290, 295</td>
</tr>
<tr>
<td>Stein, K.</td>
<td>I, 381; II, 48, 52, 174</td>
</tr>
<tr>
<td>Sternberg, S.</td>
<td>II, 168</td>
</tr>
<tr>
<td>Stoker, J. J.</td>
<td>II, 5</td>
</tr>
<tr>
<td>Stoll, Wilhelm</td>
<td>I, 19, 382; II, 29, 250, 254, 258, 259, 263, 268</td>
</tr>
<tr>
<td>Stolzenberg, G.</td>
<td>I, 382</td>
</tr>
<tr>
<td>Storch, U.</td>
<td>I, 10</td>
</tr>
<tr>
<td>Strauss, M. J.</td>
<td>I, 160, 192</td>
</tr>
<tr>
<td>Stutz, John</td>
<td>I, 10, 77, 84</td>
</tr>
<tr>
<td>Subin, M. A.</td>
<td>II, 235</td>
</tr>
<tr>
<td>Suwa, Tatsuo</td>
<td>I, 293, 295</td>
</tr>
<tr>
<td>Sweeney, W. J.</td>
<td>I, 237</td>
</tr>
<tr>
<td>Takeuchi, A.</td>
<td>II, 16, 23</td>
</tr>
<tr>
<td>Takeuchi, M.</td>
<td>II, 315</td>
</tr>
<tr>
<td>Tanaka, N.</td>
<td>II, 128, 168</td>
</tr>
<tr>
<td>Tarski, A.</td>
<td>I, 10</td>
</tr>
<tr>
<td>Tartakoff, David S.</td>
<td>I, 126, 205, 211, 237</td>
</tr>
<tr>
<td>Taylor, B. A.</td>
<td>I, 109, 166; II, 5, 224</td>
</tr>
<tr>
<td>Teichmüller, O.</td>
<td>II, 217</td>
</tr>
<tr>
<td>Tessier, B.</td>
<td>I, 84</td>
</tr>
<tr>
<td>Thie, P.</td>
<td>I, 382</td>
</tr>
<tr>
<td>Thom, R.</td>
<td>I, 30, 35, 64</td>
</tr>
<tr>
<td>Thullen, P.</td>
<td>II, 19</td>
</tr>
<tr>
<td>Timms, G.</td>
<td>I, 71</td>
</tr>
<tr>
<td>Tjurina, G. N.</td>
<td>I, 44, 49, 71; II, 217</td>
</tr>
<tr>
<td>Todorov, A. H.</td>
<td>I, 30</td>
</tr>
<tr>
<td>Tolimieri, R.</td>
<td>II, 277</td>
</tr>
<tr>
<td>Tomassini, G.</td>
<td>I, 147; II, 44</td>
</tr>
<tr>
<td>Trautmann, Günther</td>
<td>I, 85, 89</td>
</tr>
<tr>
<td>Trèves, F.</td>
<td>I, 10, 202, 203, 237</td>
</tr>
<tr>
<td>Trombi, P. C.</td>
<td>II, 66</td>
</tr>
<tr>
<td>Tsuji, T.</td>
<td>II, 315</td>
</tr>
<tr>
<td>Tung, Chia-Chi</td>
<td>II, 265, 269</td>
</tr>
<tr>
<td>Ueno, K.</td>
<td>I, 288</td>
</tr>
<tr>
<td>Ullman, J. L.</td>
<td>II, 224</td>
</tr>
<tr>
<td>Vági, S.</td>
<td>I, 121, 236; II, 308</td>
</tr>
<tr>
<td>Van de Ven, A. J. H. M.</td>
<td>I, 246; II, 39</td>
</tr>
<tr>
<td>Van de Ven, T.</td>
<td>I, 246</td>
</tr>
</tbody>
</table>
Varadarajan, V. S., II, 66
Vauthier, J., I, 185
Verdier, J.-L., I, 271; II, 58
Vergne, Michele, I, 156; II, 290, 303, 308
Vesentini, E., I, 292; II, 39, 100, 184
Vigué, J.-P., I, 10
Villamayor, O. E., I, 9
Villani, V., II, 58
Vinberg, È. B., II, 315
Vitter, A. L. III, II, 105
Vladimirov, V. S., I, 382; II, 13
Vo Van Tan, II, 53, 58
Voormoor, N., I, 167
Wagreich, P., I, 30, 49, 63, 271
Wahl, Jonathan M., I, 49, 91, 93, 94
Wajnryb, B., I, 283
Wall, C. T. C., I, 271, 283
Wallach, N., II, 281, 282, 290, 320
Walsh, J. B., I, 113
Warner, G., II, 320
Watanabe, K., I, 49; II, 44
Watson, G. N., II, 281
Wavrik, John J., I, 297, 301; II, 217
Webster, S., II, 168
Weil, A., II, 290, 301, 320
Weinstock, Barnet M., I, 193, 382; II, 187, 191
Weiss, Guido, I, 119, 121; II, 290
Weiss, N. J., II, 295
Wells, R. O., Jr., I, 160, 187, 192, 193, 381;
   II, 59, 66, 100, 125, 128, 167, 168, 184,
   185, 191, 320
Wermer, J., I, 382; II, 184, 191, 196
Weyl, H., II, 254
Whitehead, J. H. C., I, 271, 283
Whitney, H., I, 84; II, 13, 224
Whittaker, E. T., II, 281
Widman, K. O., II, 179
Williams, Floyd L., II, 317
Wong, B., II, 168
Wright, E. T., Jr., I, 254
Wright, Marcus W., II, 129, 134
Wu, Hung-Hsi, II, 69, 99, 100, 106, 114,
   137, 224, 227, 235, 269
Yang, Paul, II, 100, 135, 137
Yau, S.-T., I, 167; II, 100, 134, 244
Zame, William R., II, 7, 193, 196
Zariski, O., I, 10, 49, 84, 288
Želobenko, D. P., II, 320
Zucker, Steven, I, 303, 306
Zuiy, C., I, 126
Zygmund, A., II, 295