# AUTHOR INDEX 

## 1984

## Volumes 10-11

Throughout this index, bold face numerals are used to denote the volume number; lightface numerals denote the page.

## RESEARCH-EXPOSITORY PAPERS

Bedford, Eric, Proper holomorphic mappings, 10, 157
Blanchard, Paul, Complex analytic dynamics on the Riemann sphere, 11, 85
Eastwood, Michael G., Complexification, twistor theory, and harmonic maps from Riemann surfaces, 11, 317
Gelbart, Stephen, An elementary introduction to the Langlands program, 10, 177
Gray, J. J., Fuchs and the theory of differential equations, 10, 1
Gunning, R. C., Riemann surfaces and their associated Wirtinger varieties, 11, 287
Hirsch, Morris W., The dynamical systems approach to differential equations, 11, 1
Karlin, Samuel, Mathematical models, problems, and controversies of evolutionary theory, 10, 221
Kung, Joseph P. S. and Rota, Gian-Carlo, The invariant theory of binary forms, 10, 27 Rota, Gian-Carlo. See Kung, Joseph P. S.
Schultz, Reinhard, Nonlinear analogs of linear group actions on spheres, 11, 263
Simon, Herbert A., Computer modeling of scientific and mathematical discovery processes, 11, 247
Stanton, Nancy K., The heat equation in several complex variables, 11, 65

## RESEARCH ANNOUNCEMENTS

Adler, Ilan, Megiddo, Nimrod and Todd, Michael J., New results on the average behavior of simplex algorithms, 11, 378
Avramov, Luchezar L., Local rings of finite simplicial dimension, 10, 289
Ball, John M. and Mizel, Victor J., Singular minimizers for regular one-dimensional problems in the calculus of variations, 11, 143
Barbasch, Dan and Vogan, David, Reducibility of standard representations, 11, 383
Beals, Richard, Greiner, Peter C. and Stanton, Nancy K., The heat equation and geometry of CR manifolds, 10, 275
Bestvina, Mladen, Characterizing $k$-dimensional universal Menger compacta, 11, 369
Callias, Constantine J. and Uhlmann, Gunther A., Singular asymptotics approach to partial differential equations with isolated singularities in the coefficients, 11, 172
Dahmen, Wolfgang and Micchelli, Charles A., Some results on box splines, 11, 147
Deift, P., Li, L. C., Nanda, T. and Tomei, C., The Toda flow on a generic orbit is integrable, 11, 367
Devaney, Robert L., Julia sets and bifurcation diagrams for exponential maps, 11, 167
Doplicher, Sergio and Roberts, John E., Compact Lie groups associated with endomorphisms of $C^{*}$-algebras, 11, 333
Doyle, Peter G., Random walk on the Speiser graph of a Riemann surface, 11, 371
Eisenbud, David and Harris, Joe, Limit linear series, the irrationality of $M_{g}$, and other applications, 10, 277
Flath, Daniel E., On $\mathfrak{s o}_{8}$ and the tensor operators of $\mathfrak{s l}_{3}, \mathbf{1 0}, 97$

Gersten, S. M., On Whitehead's algorithm, 10, 281
Gillet, Henri, Deligne homology and Abel-Jacobi maps, 10, 285
Godsil, C. D. and McKay, B. D., Asymptotic enumeration of Latin rectangles, 10, 91
Goldfarb, Warren D., The Gödel class with identity is unsolvable, 10, 113
Golubitsky, Martin and Stewart, Ian, Hopf bifurcation in the presence of symmetry, 11, 339
Greiner, Peter C. See Beals, Richard.
Hahn, Kyong T., Asymptotic properties of normal and nonnormal holomorphic mappings, 11, 151
Harris, Joe. See Eisenbud, David.
Hurder, S. and Katok, A., Secondary classes and transverse measure theory of a foliation, 11, 347
Ioffe, A. D., Subdifferentiability spaces and nonsmooth analysis, 10, 87
Katok, A. See Hurder, S.
Katok, Svetlana, Modular forms associated to closed geodesics and arithmetic applications, 11, 177
Lakshmibai, V. and Seshadri, C. S., Singular locus of a Schubert variety, 11, 363
Ledrappier, F. and Young, L.-S., The metric entropy of diffeomorphisms, 11, 343
Lehner, J. and Sheingorn, M., Simple closed geodesics on $H^{+} / \Gamma(3)$ arise from the Markov spectrum, 11, 359
Li, L. C. See Deift, P.
Lieb, Ingo and Range, R. Michael, Integral representations on Hermitian manifolds: The $\bar{\partial}$-Neumann solution of the Cauchy-Riemann equations, 11, 355
Lyons, Russell, Characterizations of measures whose Fourier-Stieltjes transforms vanish at infinity, 10, 93
McCurley, Kevin S., Prime values of polynomials and irreducibility testing, 11, 155
McKay, B. D. See Godsil, C. D.
Megiddo, Nimrod. See Adler, Ilan.
Mhaskar, H. N. and Saff, E. B., Weighted polynomials on finite and infinite intervals: a unified approach, 11, 351
Micchelli, Charles A. See Dahmen, Wolfgang.
Mizel, Victor J. See Ball, John M.
Moreno, Carlos J., The strong multiplicity one theorem for $\mathrm{GL}_{n}, 11,180$
Morita, Shigeyuki, Characteristic classes of surface bundles, 11, 386
Nanda, T. See Deift, P.
Newstead, P. E., On the relations between characteristic classes of stable bundles of rank 2 over an algebraic curve, 10, 292
O'Farrell, A. G. and Preskenis, K. J., Approximation by polynomials in two diffeomorphisms, 10, 105
Pillay, Anand and Steinhorn, Charles, Definable sets in ordered structures, 11, 159
Pitman, J. W. and Yor, M., The asymptotic joint distribution of windings of planar Brownian motion, 10, 109
Preskenis, K. J. See O'Farrell, A. G.
Range, R. Michael. See Lieb, Ingo.
Roberts, John E. See Doplicher, Sergio.
Saff, E. B. See Mhaskar, H. N.
Schechter, Martin, Imbedding estimates involving new norms and applications, 11, 163
Seshadri, C. S. See Lakshmibai, V.

Sheingorn, M. See Lehner, J.
Stanton, Nancy K. See Beals, Richard.
Steinhorn, Charles. See Pillay, Anand.
Stewart, Ian. See Golubitsky, Martin.
Taubes, Clifford Henry, On the Yang-Mills-Higgs equations, 10, 295
Todd, Michael J. See Adler, Ilan.
Tomei, C. See Deift, P.
Tomter, Per, The spherical Bernstein problem in even dimensions, 11, 183
Tsutsumi, Yoshio and Yajima, Kenji, The asymptotic behavior of nonlinear Schrödinger equations, 11, 186
Uhlmann, Gunther A. See Callias, Constantine J.
Upmeier, Harald, Toeplitz operators and solvable $C^{*}$-algebras on Hermitian symmetric spaces, 11, 329
Vogan, David. See Barbasch, Dan.
Wagoner, J. B., A p-adic regulator problem in algebraic $K$-theory and group cohomology, 10, 101
Waterhouse, William C., Composition and genera of norm-type forms, 10, 298
Wolpert, Scott A., The geometry of the moduli space of Riemann surfaces, 11, 189
Yajima, Kenji. See Tsutsumi, Yoshio.
Yor, M. See Pitman, J. W.
Young, L.-S. See Ledrappier, F.

## BOOK REVIEWS

Aizenberg, L. A. See Stout, Edgar Lee.
Alberti, Peter M. See Størmer, Erling.
Alexander, Ralph, Combinatorial integral geometry with applications to mathematical stereology by R. V. Ambartzumian, 10, 318
Alperin, Jonathan L., Finite groups. II by B. Huppert and N. Blackburn; Finite groups. III by B. Huppert and N. Blackburn; Group Theory. I by Michio Suzuki, 10, 121
Ambartzumian, R. V. See Alexander, Ralph.
Arnold, V. I. See Hirsch, Morris W.
Axler, Sheldon, Function theory on planar domains, a second course in complex analysis by Stephen D. Fisher, 10, 414
Ayoub, Raymond G., Approche élémentaire de l'étude des fonctions arithmétiques by J. M. de Koninck and A. Mercier, 10, 141; Introduction to number theory by Loo Keng Hua, 10, 333
Banaschewski, B., Angeordnete Strukturen: Gruppen, Korper, Projektive Ebenen by Sibylla Prieß-Crampe, 10, 420
Besse, Arthur L. See Bishop, Richard L.
Beyl, F. Rudolf. See Van der Kallen, Wilberd.
Biedenharn, L. C. See Emch, Gérard G.
Bishop, Richard L., Manifolds all of whose geodesics are closed by Arthur L. Besse, 10, 400
Blackburn, N. See Alperin, Jonathan L.
Bott, Raoul. See Stasheff, James D.
Bourgin, Richard D. See Diestel, Joe.
Brackx, F. See Carmichael, Richard D.
Brown, Kenneth S. See Gruenberg, Karl W.

Carmichael, Richard D., Clifford analysis by F. Brackx, R. Delanghe and F. Sommen, 11, 227
Chung, Kai Lai. See Knight, Frank B.
Clancey, K. See Kaashoek, M. A.
Dauns, John. See Saltman, David J.
de Koninck, J. M. See Ayoub, Raymond G.
de Melo, Welington. See Franks, John.
Delanghe, R. See Carmichael, Richard D.
Diestel, Joe, Geometric aspects of convex sets with the Radon-Nikodým property by Richard D. Bourgin, 10, 409

DiPerna, Ronald J., Shock waves and reaction-diffusion equations by Joel Smoller, 11, 204
Dodds, Peter G., Riesz spaces II by A. C. Zaanen, 10, 346
Draxl, P. K. See Saltman, David J.
Eastham, M. S. P. See Harrell, Evans M., II.
Emch, Gérard G., Angular momentum in quantum physics: Theory and application by L. C. Biedenharn and J. D. Louck; The Racah-Wigner algebra in quantum theory by L. C. Biedenharn and J. D. Louck, 10, 150
Feit, W. See Fong, Paul.
Fink, A. M., Almost periodic functions and differential equations by B. M. Levitan and V. V. Zhikov, 10, 301

Fisher, Stephen D. See Axler, Sheldon.
Fong, Paul, The representation theory of finite groups by W. Feit, 10, 131
Franks, John, Nonlinear oscillations, dynamical systems, and bifurcations of vector fields by John Guckenheimer and Philip Holmes; Smooth dynamical systems by M. C. Irwin; Geometric theory of dynamical systems by Jacob Palis, Jr. and Welington de Melo, 10, 135
Geoghegan, Ross, Shape theory by S. Mardešić and J. Segal, 10, 340
Gohberg, I. See Kaashoek, M. A.
Goodearl, K. R. See Palmer, Theodore W.
Greene, Robert E., Riemannian geometry by Wilhelm Klingenberg, 11, 193
Gruenberg, Karl W., Cohomology of groups by Kenneth S. Brown, 11, 240
Guckenheimer, John. See Franks, John.
Hadidi, Nasser, Special functions in queuing theory and related stochastic processes by H. M. Srivastava and B. R. K. Kashyap, 10, 139

Hajek, Bruce, Semimartingales, a course on stochastic processes by Michel Métivier, 11, 198
Harrell, Evans M., II, Schrödinger-type operators with continuous spectra by M. S. P. Eastham and H. Kalf, 10, 311
Has'minskii, R. Z. See Le Cam, Lucien.
Henson, C. Ward, Set theory, an introduction to independence proofs by Kenneth Kunen, 10, 129
Hiller, H. See Proctor, Robert A.
Hirsch, Morris W., Geometrical methods in the theory of ordinary differential equations by V. I. Arnold, 10, 305
Holmes, Philip. See Franks, John.
Hörmander, Lars. See Treves, Francois.
Hua, Loo Keng. See Ayoub, Raymond G.

Huppert, B. See Alperin, Jonathan L.
Ibragimov, I. A. See Le Cam, Lucien.
Isbell, John, Stone spaces by Peter T. Johnstone, 10, 389
Irwin, M. C. See Franks, John.
Johnstone, Peter T. See Isbell, John.
Kaashoek, M. A., Factorization of matrix functions and singular integral operators by K. Clancey and I. Gohberg, 10, 123

Kalf, H. See Harrell, Evans M., II.
Kashyap, B. R. K. See Hadidi, Nasser.
Kesten, Harry. See Wierman, John C.
Klingenberg, Wilhelm. See Greene, Robert E.
Knight, Frank B., Lectures from Markov processes to Brownian motion by Kai Lai Chung, 10, 315
Kunen, Kenneth. See Henson, C. Ward.
Le Cam, Lucien, Statistical estimation, asymptotic theory by I. A. Ibragimov and R. Z. Has'minskii; Contributions to a general asymptotic statistical theory by J. Pfanzagl, 10, 392
Levitan, B. M. See Fink, A. M.
Louck, J. D. See Emch, Gérard G.
Mardesić, S. See Geoghegan, Ross.
Mercier, A. See Ayoub, Raymond G.
Métivier, Michel. See Hajek, Bruce.
Newman, Donald J. See Reznick, Bruce.
Osborne, M. R., A general theory of optimal algorithms by J. F. Traub and H. Wozniakowski, 10, 323
Oxtoby, John C., Theory of charges, a study of finitely additive measures by K. P. S. Bhaskara Rao and M. Bhaskara Rao, 11, 221
Palis, Jacob, Jr. See Franks, John.
Palmer, Theodore W., Notes on real and complex $C^{*}$-algebras by K. R. Goodearl, 10, 325
Pfanzagl, J. See Le Cam, Lucien.
Prieß-Crampe, Sibylla. See Banaschewski, B.
Proctor, Robert A., The geometry of Coxeter groups by H. Hiller, 10, 142
Rao, K. P. S. Bhaskara. See Oxtoby, John C.
Rao, M. Bhaskara. See Oxtoby, John C.
Reinhart, Bruce L. See Sacksteder, Richard.
Reznick, Bruce, A problem seminar by Donald J. Newman, 11, 223
Richardson, Roger W., Classes unipotentes et sous-groupes de Borel by Nicolas Spaltenstein, 10, 153
Sacksteder, Richard, Differential geometry of foliations by Bruce L. Reinhart, 10, 412
Saltman, David J., A concrete approach to division rings by John Dauns; Skew fields by P. K. Draxl, 11, 214

Segal, J. See Geoghegan, Ross.
Semadeni, Zbigniew. See Szarek, Stanislaw J.
Smoller, Joel. See DiPerna, Ronald J.
Sommen, F. See Carmichael, Richard D.
Spaltenstein, Nicolas. See Richardson, Roger W.

Srivastava, H. M. See Hadidi, Nasser.
Stasheff, James D., Differential forms in algebraic topology by Raoul Bott and Loring W. Tu, 10, 117
Størmer, Erling, Stochasticity and partial order, doubly stochastic maps and unitary mixing by Peter M. Alberti and Armin Uhlmann, 10, 321
Stout, Edgar Lee, Integral representations and residues in multidimensional complex analysis by L. A. Aizenberg and A. P. Yuzhakov, 10, 417
Suzuki, Michio. See Alperin, Jonathan L.
Szarek, Stanislaw J., Schauder bases in Banach spaces of continuous functions by Zbigniew Semadeni, 11, 244
Tappe, Jürgen. See Van der Kallen, Wilberd.
Traub, J. F. See Osborne, M. R.
Treves, Francois, The analysis of linear partial differential operators. I by Lars Hörmander; The analysis of linear partial differential operators. II by Lars Hörmander, 10, 337
Tu, Loring W. See Stasheff, James D.
Uhlmann, Armin. See Størmer, Erling.
Van der Kallen, Wilberd, Group extensions, representations, and the Schur multiplicator by F. Rudolf Beyl and Jürgen Tappe, 10, 330
Wierman, John C., Percolation theory for mathematicians by Harry Kesten, 10, 404
Wozniakowski, H. See Osborne, M. R.
Yuzhakov, A. P. See Stout, Edgar Lee.
Zaanen, A. C. See Dodds, Peter G.
Zhikov, V. V. See Fink, A. M.

## ERRATA

Knorr, Wilbur, Erratum to "'La Croix des mathématiciens': The Euclidean theory of irrational lines", 10, 35
Simon, Barry, Erratum to "Schrödinger semigroups", 11, 426

