

BULLETIN OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 80, Number 6, November 1974

INDEX TO VOLUME 80

RESEARCH ANNOUNCEMENTS

- Aarnes, Johan F. *Frobenius reciprocity of differentiable representations*, 337
Adler, Andrew and Williams, R. Douglas. *Restricted ideals in rings of analytic functions*, 169
Ahmad, Shair. *Periodically perturbed conservative systems*, 122
Alexander, J. P., Conner, P. E., Hamrick, G. C. and Vick, J. W. *Witt classes of integral representations of an Abelian p -group*, 1179
Alexander, J. P., Hamrick, G. C. and Vick, J. W. *Bilinear forms and cyclic group actions*, 730
Allenby, R. B. J. T. and Tang, C. Y. *On the Frattini subgroups of generalized free products*, 119
de Andrade, Rubens Leão. *Complete convex hypersurfaces of a Hilbert space*, 576
Anh, Nguyen Huu. *Algebraic groups with square-integrable representations*, 539
Anshel, Michael and Stebe, Peter. *The solvability of the conjugacy problem for certain HNN groups*, 266
Aron, Richard M. and Schottenloher, Martin. *Compact holomorphic mappings on Banach spaces and the approximation property*, 1245
Azoff, Edward A. and Gilfeather, Frank. *Measurable choice and the invariant subspace problem*, 893
Bak, Anthony. *The computation of surgery groups of odd torsion groups*, 1113
Ball, Joseph A. *Factorization and invariant subspaces for noncontractions*, 896
Barbosa, J. L. and do Carmo, M. *Stable minimal surfaces*, 581
Barrow, David L. *See* Stroud, A. H.
Beale, J. Thomas and Rosencrans, Steven I. *Acoustic boundary conditions*, 1276
Beck, Anatole. *Conditional independence*, 1169
Berenstein, C. A. and Dostal, M. A. *A lower estimate for exponential sums*, 687
Berger, M. S. and Podolak, E. *On nonlinear Fredholm operator equations*, 861
Bernau, S. J. *Lateral completion for arbitrary lattice groups*, 334
Bers, Lipman. *On spaces of Riemann surfaces with nodes*, 1219
Bichteler, Klaus. *On sequences of measures*, 839
Billera, Louis J. and Bixby, Robert E. *Market representations of n -person games*, 522
Bixby, Robert E. *The minimum number of edges and vertices in a graph with edge connectivity n and m n -bounds*, 700
_____, *See* Billera, Louis J.
Blass, J. *On the Diophantine equation $Y^2 + K = X^5$* , 329
Bloch, S. *Torsion algebraic cycles, K_2 and Brauer groups of function fields*, 941
Block, Richard E. *Irreducible representations of Lie algebra extensions*, 868
de Boor, Carl. *A remark concerning perfect splines*, 724
Bouldin, Richard. *Positive near-approximants and some problems of Halmos*, 313
Bourgin, D. G. *A degree for nonacyclic multiple-valued transformations*, 59
Brayton, R. K., Coppersmith, Donald and Hoffman, A. J. *Self-orthogonal latin squares of all orders $n \neq 2, 3, 6$* , 116
Brézis, Haim and Browder, Felix E. *Some new results about Hammerstein equations*, 567
Brooks, James K. and Dinculeanu, Nicolae. *Lebesgue spaces for bilinear vector integration theory*, 821

- Browder, Felix E. *See* Brézis, Haim
- Brown, Edgar H., Jr. *A product formula for an Arf-Kervaire invariant*, 873
- Brown, Robert F. *Fixed points of endomorphisms of compact groups*, 293
- Byrnes, Christopher I. *A spectral decomposition theorem for certain harmonic algebras*, 1271
- Cannon, John R., Henry, Daniel B. and Kotlow, Daniel B. *Continuous differentiability of the free boundary for weak solutions of the Stefan problem*, 45
- Cantor, M. *Sobolev inequalities for Riemannian bundles*, 239
- Cappell, Sylvain E. *Manifolds with fundamental group a generalized free product. I*, 1193
—, Unitary nilpotent groups and Hermitian K-theory. I, 1117
- Carey, R. W. and Pincus, J. D. *Perturbation by trace class operators*, 758
- Carlitz, L., Scoville, Richard and Vaughan, Theresa. *Enumeration of pairs of permutations and sequences*, 881
- do Carmo, M. *See* Barbosa, J. L.
- Casselman, W. *On a p-adic vanishing theorem of Garland*, 1001
- Cattani, Eduardo H. *On the partial compactification of the arithmetic quotient of a period matrix domain*, 330
- Cenzer, Douglas. *Inductively defined sets of reals*, 485
- Cesari, Lamberto. *A necessary and sufficient condition for lower semicontinuity*, 467
- Cesari, L. and Kaiser, P. *Closed operators and existence theorems in multidimensional problems of the calculus of variations*, 473
- Chafee, Nathaniel and Infante, E. F. *Bifurcation and stability for a nonlinear parabolic partial differential equation*, 49
- Chatterji, S. D. *A subsequence principle in probability theory (applied to the law of the iterated logarithm)*, 495
- Chen, Kuo-Tsai. *Solvability on manifolds by quadratures permitting only integrals*, 1210
- Chen, Su-Shing. *On Lobatchewsky manifolds*, 244
- Chewning, W. C. *A dynamical system on E^4 neither isomorphic nor equivalent to a differential system*, 150
- Choi, M. D. and Davis, Chandler. *The spectral mapping theorem for joint approximate point spectrum*, 317
- Chou, Ching. *Weakly almost periodic functions with zero mean*, 297
- Cobb, Peter V. Z. *P_n -spaces and n-fold loop spaces*, 910
- Cochran, James Alan. *Square-integrable kernels and growth estimates for their singular values*, 661
- Cohn, Leslie. *Some theorems on C-functions*, 921
- Coifman, Ronald R. and Weiss, Guido. *Central multiplier theorems for compact Lie groups*, 124
- Conner, P. E. *See* Alexander, J. P., Hamrick, G. C. and Vick, J. W.
- Coppersmith, Donald. *See* Brayton, R. K. and Hoffman, A. J.
- Curtis, D. W. and Schori, R. M. *2^X and $C(X)$ are homeomorphic to the Hilbert cube*, 927
- Dahmen, Wolfgang and Görlich, Ernst. *A conjecture of M. Golomb on optimal and nearly-optimal linear approximation*, 1199
- Danskin, John M. *Values in differential games*, 449
- Davis, Chandler. *See* Choi, M. D.
- Dennis, R. Keith and Stein, Michael R. *Injective stability for K_2 of local rings*, 1010
- Dinculeanu, Nicolae. *See* Brooks, James K.
- Dodziuk, Józef. *Combinatorial and continuous Hodge theories*, 1014
- Dostal, M. A. *See* Berenstein, C. A.
- Drasin, David. *A meromorphic function with assigned Nevanlinna deficiencies*, 766

- Drucker, Daniel. *Orbit structure of the exceptional Hermitian symmetric spaces. I*, 285
 ———, *Orbit structure of the exceptional Hermitian symmetric spaces. II*, 1225
- Drury, S. W. *The Fatou-Zygmund property for Sidon sets*, 535.
- Dyer, M. N. *Homotopy trees for periodic groups*, 1279
- Eklund, Neil. *Generalized super-parabolic functions*, 343
- Ellis, Richard S. and Pinsky, Mark A. *Asymptotic nonuniqueness of the Navier-Stokes equations in kinetic theory*, 1160
- Erdelyi, I. *Unbounded operators with spectral capacities*, 1108
- Ewing, John. *Some examples of sphere bundles over spheres which are loop spaces mod p*, 935
- Faires, Barbara. *On Vitali-Hahn-Saks type theorems*, 670
- Farias, Antonio O. *Immersions of the circle and extensions to orientation-preserving mappings*, 578
- Feder, S. and Gitler, S. *Stunted projective spaces and the J-order of the Hopf bundle*, 748
- Fefferman, Charles. *On the Bergman kernel and biholomorphic mappings of pseudoconvex domains*, 667
- Fein, Burton and Schacher, Murray. *Finite subgroups of finite dimensional division algebras*, 290
- Fenichel, Neil. *Asymptotic stability with rate conditions for dynamical systems*, 346
- Fischer, Arthur E. and Marsden, Jerrold E. *Manifolds of Riemannian metrics with prescribed scalar curvature*, 479
- Fischer, Arthur E. and Wolf, Joseph A. *The Calabi construction for compact Ricci flat Riemannian manifolds*, 92
- Fisher, Michael J. *Properties of three algebras related to L_p -multipliers*, 262
- Flanigan, F. J. *Radical embedding, genus, and toroidal derivations of nilpotent associative algebras*, 986
- Folland, G. B. and Stein, E. M. *Parametrices and estimates for the $\bar{\partial}_b$ complex on strongly pseudoconvex boundaries*, 253
- Francis, George K. *Branched and folded parametrizations of the sphere*, 72
- Friedland, Shmuel. *Nonoscillation and integral inequalities*, 715
- Geymonat, Giuseppe and Grubb, Gerd. *Special theory for boundary value problems for elliptic systems of mixed order*, 1255
- Giffen, Charles H. *Schur homotopy of the simplest group*, 957
- Gilbert, John E. *L^p -convolution operators and tensor products of Banach spaces*, 1127
- Gilfeather, Frank. *See Azoff, Edward A.*
- Gitler, S. *See Feder, S.*
- Goelman, Don. *Rational critical points of the reduced norm of an algebra*, 138
- Goldberg, Samuel I. and Ishihara, Toru. *Harmonic quasiconformal mappings of Riemannian manifolds*, 562
- Goldberg, Wallace. *On the determination of a Hill's equation from its spectrum*, 1111
- Goldsmith, Deborah Louise. *Motions of links in the 3-sphere*, 62
- Görlich, Ernst. *See Dahmen, Wolfgang*
- Gray, Hohn W. *Quasi-Kan extensions for 2-categories*, 142
- Greenspan, Donald. *A physically consistent, discrete n-body model*, 553
- Grosshans, Frank. *Open sets of points with good stabilizers*, 518
- Grubb, Gerd. *See Geymonat, Giuseppe*
- Gudder, S. and Strawther, D. *Orthogonality and nonlinear functionals*, 946
- Guerra, F., Rosen, L. and Simon, B. *The pressure is independent of the boundary conditions for $P(\phi)_2$ field theories*, 1205
- Gupta, Ram Prakash. *On decompositions of a multi-graph into spanning subgraphs*, 500
- Guthrie, J. A. and Henry, Michael. *Metrization and paracompactness in terms of real functions*, 720

- Halpern, J. D. and Howard, Paul E. *Cardinal addition and the axiom of choice*, 584
Hamrick, G. C. *See* Alexander, J. P., Conner, P. E. and Vick, J. W.
_____, *See* Alexander, J. P. and Vick, J. W.
Hardt, Robert M. *Homology and images of semianalytic sets*, 675
Hartshorne, Robin, Rees, Elmer and Thomas, Emery. *Nonsmoothing of algebraic cycles on Grassmann varieties*, 847
Harvey, F. Reese and Lawson, H. Blaine, Jr. *Boundaries of complex analytic varieties*, 180
Hebert, D. J., Jr. *Nonlinear parabolic equations and probability*, 965
Hedrick, Mark Blondeau. *The permanent at a minimum on certain classes of doubly stochastic matrices*, 836
Heidel, J. W. *See* Stafford, R. A.
Hejhal, Dennis A. *A remark on the Lindelöf hypothesis*, 695
Hemion, Geoffrey. *See* McPherson, M.
Henry, Daniel B. *See* Kotlow, Daniel B. and Cannon, John R.
Henry, Michael. *See* Guthrie, J. A.
Hilden, Hugh M. *Every closed orientable 3-manifold is a 3-fold branched covering space of S^3* , 1243
Hochster, Melvin. *The equicharacteristic case of some homological conjectures on local rings*, 683
Hochster, Melvin and Roberts, Joel L. *Actions of reductive groups on regular rings and Cohen-Macaulay rings*, 281
Hodgson, J. P. E. *Subcomplexes of Poincaré complexes*, 1146
Hoffman, A. J. *See* Brayton, R. K. and Coppersmith, Donald
Holme, Audun. *An embedding-obstruction for projective varieties*, 932
Holmes, Richard, Scranton, Bruce and Ward, Joseph. *Best approximation by compact operators. II*, 98
Horowitz, Charles. *Zeros of functions in the Bergman spaces*, 713
Howard, Paul E. *See* Halpern, J. D.
Hsieh, M. S. *See* Morrell, J. S. and Retherford, J. R.
Hunt, Richard A. and Young, Wo-Sang. *A weighted norm inequality for Fourier series*, 274
Husseini, S. Y. *Manifolds with the fixed point property. I*, 664
Hutton, C. V., Morrell, J. S. and Retherford, J. R. *Approximation numbers and Kolmogoroff diameters of bounded linear operators*, 462
Infante, E. F. *See* Chafee, Nathaniel
Ishihara, Toru. *See* Goldberg, Samuel I.
James, Robert C. *A separable somewhat reflexive Banach space with nonseparable dual*, 738
Jayne, J. E. *The space of class α Baire functions*, 1151
Kaigh, W. D. *A conditional local limit theorem and its application to random walk*, 769
Kaiser, P. *See* Cesari, L.
Kauffman, Louis H. *Products of knots*, 1104
Kiernan, Peter. *On the compactifications of arithmetic quotients of symmetric spaces*, 109
Kiremidjian, Garo K. *On the extension of boundary integrable almost complex structure*, 982
Knight, William J. *Existence of solutions of differential equations in Banach space*, 148
Koliha, J. J. *Pseudo-inverses of operators*, 325
Koschorke, Ulrich. *Singularities and bordism of q -plane fields and of foliations*, 760
Kotlow, Daniel B. *See* Cannon, John R. and Henry, Daniel B.
Kreith, Kurt. *Nonselfadjoint fourth order differential equations with conjugate points*, 1190
Kronstadt, Eric P. *General interpolating sequences in disks and polydisks*, 132
Kuelbs, J. *An inequality for the distribution of a sum of certain Banach space valued random variables*, 549

- Kulshrestha, P. K. *Coefficients for alpha-convex univalent functions*, 341
 Kuo, Hui-Hsiung. *The Morse-Palais lemma on Banach spaces*, 363
 Laha, R. G. *A class of square-integrable irreducible unitary representations of some linear groups over commutative p -fields*, 718
 Lawson, H. Blaine, Jr. *See Harvey, F. Reese*
 Leger, G. and Luks, E. *Cohomology and weight systems for nilpotent Lie algebras*, 77
 Lehrer, G. I. *Weil representations and cusp forms on unitary groups*, 1137
 Levinson, Norman. *Zeros of derivative of Riemann's ξ -function*, 951
 Lim, Teck-Cheong. *A fixed point theorem for multivalued nonexpansive mappings in a uniformly convex Banach space*, 1123
 Lin, James P. *H-spaces with finitely generated cohomology algebras*, 1233
 Lins Neto, Alcides. *Generalized gradient fields and electrical circuits*, 991
 Longstaff, W. E. *Strongly reflexive lattices*, 875
 Loos, Ottmar. *A structure theory of Jordan pairs*, 67
 Lucas, Dean. *Properties of rank preserving weak maps*, 127
 Luks, E. *See Leger, G.*
 MacBain, John. *Global bifurcation theorems for noncompact operators*, 1005
 MacDonald, John L. *Conditions for a universal mapping of algebras to be a monomorphism*, 888
 Madsen, I. and Milgram, R. J. *The oriented topological and PL cobordism rings*, 855
 Mah, P. and Naimpally, S. A. *Open and uniformly open relations*, 1157
 Mane, Ricardo. *Persistent manifolds are normally hyperbolic*, 90
 Merrero, Osvaldo. *Completion and embedding between pseudo (v, k, λ) -designs and (v, k, λ) -designs*, 103
 Marsden, J. *A formula for the solution of the Navier-Stokes equations based on a method of Chorin*, 154
 Marsden, Jerrold E. *See Fischer, Arthur E.*
 Marsden, M. J. *Quadratic spline interpolation*, 903
 Martio, O. and Srebro, U. *Automorphic mappings in R^n* , 692
 Maskit, Bernard. *Moduli of marked Riemann surfaces*, 773
 Mather, John N. *Simplicity of certain groups of diffeomorphisms*, 271
 May, Robert D. *Stability and transversality*, 85
 McPherson, M. and Hemion, Geoffrey. *Locally prime arcs with finite penetration index*, 531
 Mesirov-Kazdan, Jill P. *Calculus of variations: Perturbations preserving condition (C)*, 1260
 Metzler, Richard C. *Representation of partially ordered linear algebras*, 939
 Meyer, R. E. *Exponential action of a pendulum*, 164
 Milgram, R. J. *See Madsen, I.*
 Minda, Carl David. *Extremal length, reproducing differentials and Abel's theorem*, 735
 Montesinos, José M. *A representation of close, orientable 3-manifolds as 3-fold branched coverings of S^3* , 845
 Morrell, J. S., Hsieh, M. S. and Retherford, J. R. *On ideals of compact operators*, 907
 ———, *See Hutton, C. V. and Retherford, J. R.*
 Mosco, Umberto and Strang, Gilbert. *One-sided approximation and variational inequalities*, 308
 Myers, Sally Ellene. *A boundary maximum principle for degenerate elliptic-parabolic inequalities, for characteristic boundary points*, 527
 Nagel, Alexander, Rivière, Nestor and Wainger, Stephen. *On Hilbert transforms along curves*, 106
 Naimpally, S. A. *See Mah, P.*
 Nashed, M. Z. and Votruba, G. F. *A unified approach to generalized inverses of linear operators: I. Algebraic, topological, and projectional properties*, 825
 ———, *A unified approach to generalized inverses of linear operators: II. Extremal and proximinal properties*, 831

- Nashed, M. Z. and Wahba, Grace. *Regularization and approximation of linear operator equations in reproducing kernel spaces*, 1213
- Neumann, Walter D. *Cyclic suspension of knots and periodicity of signature for singularities*, 977
- Nishimura, Jun-ichi. *See* Suzuki, Satoshi
- Osborne, M. S. *Lie algebra cohomology of certain infinite-dimensional representations*, 852
- Osher, Stanley. *An ill-posed problem for a strictly hyperbolic equation in two unknowns near a corner*, 705
- Palis, J. *Vector fields generate few diffeomorphisms*, 503
- Paré, Robert. *Colimits in topoi*, 556
- Passow, Eli and Raymon, Louis. *Restricted approximation and interpolation*, 750
- Pearcy, Carl and Salinas, Norberto. *Finite-dimensional representations of separable C^* -algebras*, 970
- Pedersen, Erik Kjaer. *Topological concordances*, 658
- Petrie, Ted. *Obstructions to transversality for compact Lie groups*, 1133
- Pfaltzgraff, J. A. *Quasiconformal extension of holomorphic mappings of a ball in C^n* , 543
- Phillips, Anthony. *Smooth maps of constant rank*, 513
- Pincus, J. D. *See* Carey, R. W.
- Pinsky, Mark A. *See* Ellis, Richard S.
- Pless, Vera and Sloane, N. J. A. *Binary self-dual codes of length 24*, 1173
- Podolak, E. *See* Berger, M. S.
- Poénaru, V. *A remark on simply-connected 3-manifolds*, 1203
- Pontes, Edmilson. *Isometric minimal immersions of $S^3(a)$ in $S^N(1)$* , 1239
- Pukanszky, L. *Characters of connected Lie groups*, 709
- Randell, Richard C. *Generalized Brieskorn manifolds*, 111
- Randol, Burton. *Small eigenvalues of the Laplace operator on compact Riemann surfaces*, 996
- Ravenel, Douglas C. and Wilson, W. Stephen. *The Hopf ring for complex cobordism*, 1185
- Raymon, Louis. *See* Passow, Eli
- Reed, G. M. and Zenor, P. L. *Preimages of metric spaces*, 879
- Rees, Elmer. *See* Hartshorne, Robin and Thomas, Emery
- Rutherford, J. R. *See* Hutton, C. V. and Morrell, J. S.
_____, *See* Hsieh, M. S. and Morrell, J. S.
- Rice, John R. *Adaptive quadrature: Convergence of parallel and sequential algorithms*, 1250
- Rice, Michael D. *Covering and function theoretic properties of uniform spaces*, 159
- Rivièrre, Nestor. *See* Nagel, Alexander and Wainger, Stephen
- Roberts, Joel L. *See* Hochster, Melvin
- Robinson, C. A. *Stable homotopy theory over a fixed base space*, 248
- Rosen, L. *See* Guerra, F. and Simon, B.
- Rosencrans, Steven I. *See* Beale, J. Thomas
- Rosenkrantz, Walter A. *A convergent family of diffusion processes whose diffusion coefficients diverge*, 973
- Sacker, Robert J. and Sell, George R. *A note on Anosov diffeomorphisms*, 278
- Salinas, Norberto. *See* Pearcy, Carl
- Sario, Leo. *A criterion for the existence of biharmonic Green's functions*, 1183
- Schacher, Murray. *See* Fein, Burton
- Schlesinger, James W. *Sets of colorings of circuits*, 721
- Schorri, R. M. *See* Curtis, D. W.
- Schottenloher, Martin. *See* Aron, Richard M.
- Schultz, Reinhard. *Differentiable Z_p actions on homotopy spheres*, 961
- Scoville, Richard. *See* Carlitz, L. and Vaughan, Theresa
- Scranton, Bruce. *See* Holmes, Richard and Ward, Joseph

- Seabury, Chester. *Some extension theorems for regular maps of Stein manifolds*, 1223
 Seidman, Thomas I. *A well-posed problem for the heat equation*, 901
 Sell, George R. *See* Sacker, Robert J.
 Sharpley, Robert. *Interpolation of operators for Λ spaces*, 259
 Simoes, Plinio. *On a class of minimal cones in R^n* , 488
 Simon, B. *See* Guerra, F. and Rosen, L.
 Singer, Ivan. *On the extension of basic sequences to bases*, 771
 Sloane, N. J. A. *See* Pless, Vera
 Soare, Robert I. *Automorphisms of the lattice of recursively enumerable sets*, 53
 Srebro, U. *See* Martio, O.
 Strafford, R. A. and Heidel, J. W. *A new comparison theorem for scalar Riccati equations*, 754
 Stebe, Peter. *See* Anshel, Michael
 Stefan, P. *Accessibility and foliations with singularities*, 1142
 Stein, E. M. *See* Folland, G. B.
 Stein, Junior. *Hilbert space and variational methods for singular selfadjoint systems of differential equations*, 744
 Stein, Michael R. *See* Dennis, R. Keith
 Stein, S. K. *Tiling space by congruent polyhedra*, 819
 Stevenson, James O. *Holomorphy of composition*, 300
 Strang, Gilbert. *See* Mosco, Umberto
 Strawther, D. *See* Gudder, S.
 Stroud, A. H. and Barrow, David L. *Gauss formulas for the Dirichlet problem*, 1230
 Sussmann, Héctor J. *On quotients of manifolds: A generalization of the closed subgroup theorem*, 573
 Sutherland, Colin E. *Direct integral theory for weights, and the Plancherel formula*, 456
 Suzuki, Satoshi and Nishimura, Jun-ichi. *Higher differential algebras of discrete valuation rings*, 865
 Tang, C. Y. *See* Allenby, R. B. J. T.
 Tapia, R. A. *A general approach to Newton's method for Banach space problems with equality constraints*, 355
 Taussky, Olga. *Additive commutators between 2×2 integral matrix representations of orders in identical or different quadratic number fields*, 885
 Thomas, Emery. *See* Hartshorne, Robin and Rees, Elmer
 Thomson, James. *The commutant of analytic Toeplitz operators*, 915
 Thurston, William. *Foliations and groups of diffeomorphisms*, 304
 Turner, Stuart. *The zeta function of a class of rational varieties*, 917
 Vaseekaran, C. *Equivariant homotopy theory*, 322
 Vaughan, Theresa. *See* Carlitz, L. and Scoville, Richard
 Vick, J. W. *See* Alexander, J. P. and Hamrick, G. C.
 —, *See* Alexander, J. P., Conner, P. E. and Hamrick, G. C.
 Volk, B. *On the maximum N th diameter*, 446
 Votruba, G. F. *See* Nashed, M. Z.
 Výborný, R. *The Hadamard three-circles theorems for partial differential equations*, 81
 Wahba, Grace. *See* Nashed, M. Z.
 Wainger, Stephen. *See* Nagel, Alexander and Rivière, Nestor
 Walsh, Bertram. *An approximation property characterizes ordered vector spaces with lattice-ordered duals*, 1165
 Ward, Joseph. *See* Holmes, Richard and Scranton, Bruce
 Weiss, Guido. *See* Coifman, Ronald R.
 White, James H. *Minimal total absolute curvature for orientable surfaces with boundary*,

- Whitten, Wilbur. *Characterizations of knots and links*, 1265
 Williams, R. Douglas. *See* Adler, Andrew
 Wilson, W. Stephen. *See* Ravenel, Douglas C.
 Winkler, William. *Some results in Doeblin's theory of Markov chains*, 728
 Winter, David J. *Normal field extensions K/k and K/k-bialgebras*, 506
 Wolf, Joseph A. *See* Fischer, Arthur E.
 Wong, James S. W. *Positive definite functions and Volterra integral equations*, 679
 Wong, Kai-Tak. *On extended structures of a closed operator related to semigroup theory and the abstract Cauchy problem*, 350
 Young, Wo-Sang. *On rearrangements of Walsh-Fourier series and Hardy-Littlewood type maximal inequalities*, 490
 ———, *See* Hunt, Richard A.
 Yu, Chung-Ling. *The existence for the solution of the elliptic Cauchy problem*, 545
 Zassenhaus, Hans. *Reduction theory in algebraic number fields*, 955
 Zehnder, E. *An implicit function theorem for small divisor problems*, 174
 Zenor, P. L. *See* Reed, G. M.
 Zettl, Anton. *A characterization of the factors of ordinary linear differential operators*, 498

INVITED ADDRESSES

- Andrews, George E., *A general theory of identities of the Rogers-Ramanujan type*, 1033
 Berlekamp, Elwyn R., 652
 Bharucha-Reid, A. T., 816
 Bishop, Errett A., 440
 Browder, Felix E., 440
 Dudley, Richard M., 440
 Duffin, R. J., *Some problems of mathematics and science*, 1053
 ———, 652
 Fitzpatrick, Ben, Jr., 445
 Fleming, Wendell H., 440
 Gallagher, Patrick X., 440
 Garsia, Adriano M., 652
 Gluck, Herman R., 440
 Hall, Marshall, Jr., 238
 Hamstrom, Mary-Elizabeth, *Homotopy in homeomorphism spaces, TOP and PL*, 207
 Hartshorne, Robin, *Varieties of small codimension in projective space*, 1017
 ———, 440
 Harvey, Reese, *Three structure theorems in several complex variables*, 633
 ———, 440
 Hill, Paul D., 445
 Hirzebruch, F. E. P., 440
 Jacobson, Nathan, 652
 Kahane, J.-P., *Best approximation in $L^1(T)$* , 788
 ———, 444
 Karp, R., 441
 Knopp, Marvin I., *Some new results on the Eichler cohomology of automorphic forms*, 607
 Kobayashi, Shoshichi, 652
 Kuratowski, Kazimierz, 238
 Lang, Serge, *Higher dimensional diophantine problems*, 779
 Lawson, H. Blaine, Jr., *Foliations*, 369
 Lichtenbaum, Stephen, 443

- Lieb, Elliott H., 443
 Matsusaka, T., *Global deformation of polarized varieties*, 1
 Meyer, A., 441
 Mitchell, Barry M., 652
 Mycielski, Jan, 440
 Nashed, M. Zuhair, 445
 Nirenberg, Louis, 652
 Ogg, Andrew P., 651
 Osofsky, Barbara L., *The subscript of \aleph_n , projective dimension and the vanishing of $\lim_{\leftarrow}(n)$* , 8
 Petryshyn, W. Y., 440
 Phelps, Robert R., 651
 Ray-Chaudhuri, Dinen K., 653
 Raymond, Frank A., 444
 Richards, J. Ian, *On the incompatibility of two conjectures concerning primes; a discussion of the use of computers in attacking a theoretical problem*, 419
 ———, 441
 Rodin, Burton, *The method of extremal length*, 587
 Samuelson, Paul A., 652
 Schwartz, J. T., *Semantic and syntactic issues in programming*, 185
 ———, 441
 Shoenfield, J. R., 816
 Shub, M., *Dynamical systems, filtrations and entropy*, 27
 Simmons, James, 441
 Solomon, Louis, 653
 Stark, Harold M., 441
 Thompson, John G., 652
 Tulcea, A. Ionescu, *On measurability, pointwise convergence and compactness*, 231
 Weinstein, Alan D., 653

BOOK REVIEWS

- Dixon, John D. Review of *Infinite linear groups* by B. A. F. Wehrfritz, 1071
 Kline, Morris. *See* Rota, Gian-Carlo
 Rota, Gian-Carlo. Review of *Mathematical thought from ancient to modern times* by Morris Kline, 805
 Wehrfritz, B. A. F. *See* Dixon, John D.

MISCELLANEOUS

- Albert, Abraham Adrian. *See* Jacobson, Nathan
 Board of Trustees, 1973, 184
 Council Members, 1973, 184
 Election results, 1973, 368
 Index to Volume 80, 1284
 Jacobson, Nathan. Obituary of *Abraham Adrian Albert*, 1905–1972, 1075
 Lehmer, D. H., Obituary of *Harry Schultz Vandiver*, 1882–1973, 817
 Lovelady, David Lowell. Corrigendum to: *Bounded solutions of whole-line differential equations*, 778
 Meetings of the American Mathematical Society, Reports of
 September 1973, Rome Colloquium in Combinatorial Theory (Herbert S. Wilf), 238
 August 1973, Missoula, summer meeting (Everett Pitcher and Kenneth A. Ross), 440

- October 1973, Cambridge (Walter Gottschalk), 443
November 1973, Minneapolis (Paul T. Bateman), 444
November 1973, Atlanta (O. G. Harrold), 445
November 1973, Tucson (Kenneth A. Ross), 651
January 1974, San Francisco, annual meeting (Everett Pitcher and Kenneth A. Ross),
652
March 1974, Gainesville (O. G. Harrold), 816
Membership, elections to, 42, 237, 439, 642, 808
Statement of Ownership, Management and Circulation, 1294
Treasurer's Report, 1101
Vandiver, Harry Schultz. *See* Lehmer, D. H.
Zieschang, Heiner. Addendum to: "*On extensions of fundamental groups of surfaces and related groups*", 366