INDEX TO VOLUME 347
January–December 1995

Abi-Khuzam, Faruk F. Hadamard convexity and multiplicity and location of zeros, 3043.
Adolphson, Alan and Dwork, Bernard. Contiguity relations for generalized hypergeometric functions, 615.
Ahern, Patrick and Rosay, Jean-Pierre. Entire functions, in the classification of differentiable germs tangent to the identity, in one or two variables, 543.
Akbulut, Selman, Mrowka, Tom and Ruan, Yongbin. Torsion classes and a universal constraint on Donaldson invariants for odd manifolds, 63.
Alessandrini, G., Isakov, V. and Powell, J. Local uniqueness in the inverse conductivity problem with one measurement, 3031.
Alias, Luis J., Ferrández, Angel and Lucas, Pascual. Hypersurfaces in space forms satisfying the condition $\Delta x = Ax + B$, 1793.
Alladi, Krishnaswami. Some new observations on the Göllnitz-Gordon and Rogers-Ramanujan identities, 897.
Alladi, Krishnaswami and Gordon, Basil. Schur’s partition theorem, companions, refinements and generalizations, 1591.
Allday, Christopher. Cyclic Sullivan–de Rham forms, 3971.
Arias, A., Figiel, T., Johnson, W. B. and Schechtman, G. Banach spaces with the 2-summing property, 3835.
Arrieta, Jose M. Rates of eigenvalues on a dumbbell domain. Simple eigenvalue case, 3503.
Atzmon, Aharon. Power regular operators, 3101.
Aubert, Anne-Marie. Dualité dans le groupe de Grothendieck de la catégorie des représentations lisses de longueur finie d’un groupe réductif p-adique, 2179.
Auslander, Joseph, Ellis, David B. and Ellis, Robert. The regionally proximal relation, 2139.
Außel, Didier, Corvellec, Jean-Noël and Lassonde, Marc. Mean value property and subdifferential criteria for lower semicontinuous functions, 4147.
Azoff, Edward A. Test problems for operator algebras, 2989.
Backlund, Ulf. Comparison of certain $H^\infty$-domains of holomorphy, 2917.
Bang, Ha Huy. Functions with bounded spectrum, 1067.
Barnard, R. W. See Anderson, G. D.
Barnes, Bruce A. and Clauss, Jon M. Spectral and Fredholm properties of operators in elementary nest algebras, 1735.
Bauschke, H. H. A norm convergence result on random products of relaxed projections in Hilbert space, 1365.
Bayer, Dave and Eisenbud, David. Ribbons and their canonical embeddings, 719.
Bean, Michael A. Binary forms, hypergeometric functions and the Schwarz-Christoffel mapping formula, 4959.
Beauzamy, Bernard and Dégot, Jérome. Differential identities, 2607.
Belloni, Marino. Interpretation of Laurentiev phenomenon by relaxation: the higher order case, 2011.
Belna, Charles L., Berman, Robert D., Colwell, Peter and Piranian, George. The zero-sets of the radial-limit functions of inner functions, 3605.
Berg, Christian and Duran, Antonio J. The index of determinacy for measures and the $\ell^2$-norm of orthonormal polynomials, 2795.
INDEX TO VOLUME 347

Berkes, I. An optimal condition for the LIL for trigonometric series, 515.
Berman, Robert D. See Belna, Charles L.
Berman, Stephen, Gao, Yun, Krylyuk, Yaroslav and Neher, Erhard. The alternative torus and the structure of elliptic quasi-simple Lie algebras of type \(A_2\), 4315.
Bernau, S. J. and Huijsmans, C. B. The order bidual of almost \(F\)-algebras and \(D\)-algebras, 4259.
Berndt, Bruce C., Bhargava, S. and Garvan, Frank G. Ramanujan’s theories of elliptic functions to alternative bases, 4163.
Bhargava, S. See Berndt, Bruce C.
Blokh, A. M. Functional rotation numbers for one-dimensional maps, 499.
Bolotnikov, Vladimir. See Alpay, Daniel
Branson, Thomas P. Sharp inequalities, the functional determinant, and the complementary series, 3671.
Branson, Thomas, Gilkey, Peter and Pohjanpelto, Juha. Invariants of locally conformally flat manifolds, 939.
Caffarelli, Luis A. and Vázquez, Juan L. A free-boundary problem for the heat equation arising in flame propagation, 411.
Camillo, Victor P. and Yu, Hua-Ping. Stable range one for rings with many idempotents, 3141.
Cannings, R. C. and Holland, M. P. Differential operators, \(n\)-branch curve singularities and the \(n\)-subsapce problem, 1439.
Carme Leseduarte, M. and Llibre, Jaume. On the set of periods for \(\sigma\) maps, 4899.
Cass, F. P. and Gao, J. X. On some subalgebras of \(B(c_0)\) and \(B(l_1)\), 4461.
Chandler, Karen A. Geometry of dots and ropes, 767.
Chen, Gui-Qiang and Dafermos, Constantine M. The vanishing viscosity method in one-dimensional thermoelasticity, 531.
Chen, Ten-Ging. Geometry of strictly convex domains and an application to the uniform estimate of the \(\delta\)-problem, 2127.
Chen, Weiyu. On the \(L^2\) inequalities involving trigonometric polynomials and their derivatives, 1753.
———. Some inequalities of algebraic polynomials with nonnegative coefficients, 2161.
Chen, Yuan Yan. Statistical inference based on the possibility and belief measures, 1855.
Chermak, Andrew. \(R\)-trees, small cancellation, and convergence, 4515.
———. Triangles of groups, 4533.
Chiarellotto, Bruno. On Lamé operators which are pull-backs of hypergeometric ones, 2753.
Chicone, Carmen. A geometric approach to regular perturbation theory with an application to hydrodynamics, 4559.
Choi, Y. S., Lazer, A. C. and McKenna, P. J. On a singular quasilinear anisotropic elliptic boundary value problem, 2633.
Chui, C. K., Hong, D. and Jia, R. Q. Stability of optimal-order approximation by bivariate splines over arbitrary triangulations, 3301.
Chung, J. K., Ebanks, B. R., Ng, C. T. and Sahoo, P. K. On a quadratic-trigonometric functional equation and some applications, 1131.
Clauss, Jon M. See Barnes, Bruce A.
Colwell, Peter. See Belna, Charles L.
Corvellec, Jean-Noël. See Aussel, Didier
Crombez, G. Viewing parallel projection methods as sequential ones in convex feasibility problems, 2575.
Cruz-Uribe, David, SFO and Neugebauer, C. J. The structure of the reverse Hölder classes, 2941.
Dafermos, Constantine M. See Chen, Gui-Qiang
Dai, Xianzhe and Zhang, Weiping. Circle bundles and the Kreck-Stolz invariant, 3587.
Dajczer, Marcos and Vergasta, Enaldo. Conformal hypersurfaces with the same Gauss map, 2437.
Dalmasso, Robert. Elliptic equations of order \(2m\) in annular domains, 3575.
Dayawansa, W. P. See Samelson, Sandra L.
Deaconu, Valentin. Groupoids associated with endomorphisms, 1779.
Debs, Gabriel. Polar \(\alpha\)-ideals of compact sets, 317.
Dégot, Jérôme. See Beauzamy, Bernard
Ding, Wei-Yue and Liu, Jia-Quan. A note on the problem of prescribing Gaussian curvature on surfaces, 1059.
INDEX TO VOLUME 347

Dodziuk, Józef and McGowan, Jeffrey.  The spectrum of the Hodge Laplacian for a degenerating family of hyperbolic three manifolds, 1981.

Dolecki, Szymon, Greco, Gabriele H. and Lechicki, Alojzy.  When do the upper Kuratowski topology (homeomorphically, Scott topology) and the co-compact topology coincide?, 2869.

Dor, Avner.  Immersions and embeddings in domains of holomorphy, 2813.

Dowling, Thomas and O'Farrell, Anthony G.  Affine transformations and analytic capacities, 2643.

Dubejko, Tomasz.  Branched circle packings and discrete Blaschke products, 4073.

Dumortier, Freddy and Smits, Bert.  Transition time analysis in singularly perturbed boundary value problems, 4129.

Duncan, T. E. and Upmeier, H.  Stochastic control problems and spherical functions on symmetric spaces, 1083.

Dunkl, Charles F.  Intertwining operators associated to the group $S_3$, 3347.

Dupuis, Paul and Ellis, Richard S.  The large deviation principle for a general class of queueing systems I, 2689.

Duran, Antonio J.  See Berg, Christian

Dvurečenskij, Anatolij.  Tensor product of difference posets, 1043.

Dwork, Bernard.  See Adolphson, Alan

Dunkl, Charles F.  Intertwining operators associated to the group $S_3$, 3347.

Dupuis, Paul and Ellis, Richard S.  The large deviation principle for a general class of queueing systems I, 2689.

Duran, Antonio J.  See Berg, Christian

Elcrat, Alan R. and Miller, Kenneth G.  Variational formulas on Lipschitz domains, 2669.

Ellis, David B.  See Auslander, Joseph

Ellis, Richard S.  See Dupuis, Paul

Ellis, Robert.  See Auslander, Joseph

Fajstrup, Lisbeth.  Tate cohomology of periodic $K$-theory with reality is trivial, 1841.

Falconer, K. J.  Sub-self-similar sets, 3121.

Fan, Haitao and Hale, Jack K.  Attractors in inhomogeneous conservation laws and parabolic regularizations, 1239.

Fast, Stephen H. and Smith, J. C.  Examples of $B(\lambda, r)$-refinable and weak $\mathcal{B}$-refinable spaces, 1803.

Fenton, P. C.  Wiman-Valiron theory in two variables, 4403.

Fernández, J. L. and Melián, M. V.  Bounded geodesics of Riemann surfaces and hyperbolic manifolds, 3533.

Fernández, Angel.  See Alias, Luis J.

Figiel, T.  See Arias, A.

Flynn, E. V.  An explicit theory of heights, 3003.

Foreman, Matthew.  See Eklof, Paul C.

Fornari, S., Frensel, K. and Ripoll, J.  Errata to “Hypersurfaces with constant mean curvature in the complex hyperbolic space”, 3177.

Frensel, K.  See Fornari, S.

Gao, J. X.  See Cass, F. P.

Gao, Yun.  See Berman, Stephen

Gardiner, Frederick P.  Infinitesimal bending and twisting in one-dimensional dynamics, 915.

Garnica Vigil, Eugenio.  On the decomposition of Langlands subrepresentations for a group in the Harish-Chandra class, 1609.

Garvan, Frank G.  See Berndt, Bruce C.

Gilkey, Peter.  See Branson, Thomas

Gordon, Basil.  See Alladi, Krishnaswami

Gossez, J.-P. and Omari, P.  On a semilinear elliptic Neumann problem with asymmetric nonlinearities, 2553.

Greco, Gabriele H.  See Dolecki, Szymon

Green, Mark.  See Eisenbud, David

Gregory, John and Hughes, H. R.  Random quadratic forms, 709.

Greven, Andreas.  See Dawson, Donald A.


Guan, Daniel (Zhuang-dan).  Existence of extremal metrics on compact almost homogeneous Kähler manifolds with two ends, 2255.
INDEX TO VOLUME 347

Guan, Zhengyuan and Kartsatos, Athanassios G.  Ranges of perturbed maximal monotone and m-accretive operators in Banach spaces, 2403.

Guedda, Mohammed and Kirane, Mokhtar.  A note on singularities in semilinear problems, 3595.

Guillamon, A., Jarque, X., Llibre, J., Ortega, J. and Torregrosa, J.  Periods for transversal maps via Lefschetz numbers for periodic points, 4779.


Guyer, James.  The de Branges-Rovnyak model with finite-dimensional coefficients, 1383.

Hadjar, Amine.  Sur les structures de contact régulières en dimension trois, 2473.

Hale, Jack K.  See Fan, Haitao

Hannah, John and O'Meara, K. C.  A new measure of growth for countable-dimensional algebras. I, 111.


Hare, Kathryn E. and Klemes, Ivo.  On permutations of lacunary intervals, 4105.

Harris, B. J. and Kong, Q.  On the oscillation of differential equations with an oscillatory coefficient, 1831.

Haruki, Hiroshi and Rassias, Themistocles M.  A new functional equation of Pexider type related to the complex exponential function, 3111.


Heinzer, William and Wiegand, Sylvia.  Prime ideals in polynomial rings over one-dimensional domains, 639.

Hernández, Paricio, L. J.  Applications of simplicial M-sets to proper and strong shape theories, 363.

Hesaaraki, Mahmoud.  The structure of MFD shock waves for rectilinear motion in some models of plasma, 3423.

Hieber, Matthias.  Lp spectra of pseudodifferential operators generating integrated semigroups, 4023.

Holland, M. P.  See Cannings, R. C.

Holt, Linda M.  Singularities produced in conormal wave interactions, 289.

Hun, D.  See Chui, C. K.

Horie, Kuniaki and Ogura, Hiroko.  On the ideal class groups of imaginary abelian fields with small conductor, 2517.

Hovey, Mark A. and Ravenel, Douglas C.  The 1-connected cobordism ring at p = 3, 3473.

Howe, Everett W.  Principally polarized ordinary abelian varieties over finite fields, 2361.

Howie, J., Metaftsis, V. and Thomas, R. M.  Finite generalized triangle groups, 3613.

Hu, Shouchuan and Papageorgiou, Nikolaos S.  Generalizations of Browder's degree theory, 233.

Huffman, Timothy, Park, Chull and Skoug, David.  Analytic Fourier-Feynman transforms and convolution, 661.

Hughes, H. R.  See Gregory, John

———.  Curvature conditions on Riemannian manifolds with Brownian harmonicity properties, 339.

Hui, Kin Ming.  Singular limit of solutions of ut = Δum - A · ∇(u^q) as q → ∞, 1687.

Huisman, C. B.  See Bernau, S. J.


Huynh, Dinh Van.  A right countably sigma-CS ring with ACC or DCC on projective principal right ideals is left Artinian and QF-3, 3131.


Isakov, V.  See Alessandrini, G.

Isakov, Victor and Nachman, Adrian I.  Global uniqueness for a two-dimensional semilinear elliptic inverse problem, 3375.


Jarque, X.  See Guillamon, A.

Jia, R. Q.  See Chui, C. K.

Jia, Rong-Qing.  The Toeplitz theorem and its applications to approximation theory and linear PDE's, 2585.

Johnson, Brenda.  The derivatives of homotopy theory, 1295.

Johnson, W. B.  See Arias, A.

Joly, J. L., Métivier, G. and Rauch, J.  Focusing at a point and absorption of nonlinear oscillations, 3921.
INDEX TO VOLUME 347

Jost, Jürgen, Li-Jost, Xianqing and Peng, Xiao-Wei. Bifurcation of minimal surfaces in Riemannian manifolds, 51.

Jourani, A. and Thibault, L. Verifiable conditions for openness and regularity of multivalued mappings in Banach spaces, 1255.


Kamps, K. H. See Hardie, K. A.


Kang, Seong Joo. Conormal and piecewise smooth solutions to quasilinear wave equations, 1.

Kaniuth, Eberhard and Markfort, Annette. On $C^*$-algebras associated to the conjugation representation of a locally compact group, 2595.

Karoubi, Max. Formes differentielles non commutatives et cohomologie a coefficients arbitraires, 4277.

Kasparian, Azniv. The variations of Hodge structure of maximal dimension with associated Hodge numbers $h_{2,0} > 2$ and $h_{1,1} = 2q + 1$ do not arise from geometry, 4985.


Keane, Mike, Smorodinsky, Meir and Solomyak, Boris. On the morphology of $\gamma$-expansions with deleted digits, 955.

Ki, Haseo. The Kechris-Woodin rank is finer than the Zalcwasser rank, 4471.

Kirane, Mokhtar. See Guedda, Mohammed

Kirchheim, Bernd. Hausdorff measure and level sets of typical continuous mappings in Euclidean spaces, 1763.

Klemes, Ivo. See Hare, Kathryn E.

Knopfmacher, Arnold and Warlimont, Richard. Distinct degree factorizations for polynomials over a finite field, 2235.

Kodiyalam, Vijay. Integrally closed modules over two-dimensional regular local rings, 3551.


Krylyuk, Yaroslav. See Berman, Stephen

Kuhn, Nicholas J., Slack, Michael and Williams, Frank. Hopf constructions and higher projective planes for iterated loop spaces, 1201.

Kwon, K. H. See Jung, I. H.

Labute, John P. Free ideals of one-relator graded Lie algebras, 175.


Larcher, Gerhard and Niederreiter, Harald. Generalized $(1,s)$-sequences, Kronecker-type sequences, and diophantine approximations of formal Laurent series, 2051.

Lassonde, Marc. See Aussel, Didier

Lazer, A. C. See Choi, Y. S.

Le, Vy Khoi and Schmitt, Klaus. Minimization problems for noncoercive functionals subject to constraints, 4485.

Lechicki, Alojzy. See Dolecki, Szymon

Lecomte, Dominique. Uniformisations partielles et critères à la Hurewicz dans le plan, 4433.

Lee, D. W. See Jung, I. H.

Lee, Tsiu-Kwen. Left annihilators characterized by gpis, 3159.

Lesh, Kathryn. Hybrid spaces with interesting cohomology, 3247.

Lévai, L., Rosenberger, G. and Souvignier, B. All finite generalized triangle groups, 3625.


Li, Peter, Tam, Luen-fai and Wang, Jiaping. Harmonic diffeomorphisms between Hadamard manifolds, 3645.

Li, Shihai and Ye, Xiandong. Topological entropy for finite invariant subsets of $Y$, 4651.

Li-Jost, Xianqing. See Jost, Jürgen

Littlejohn, L. L. See Jung, I. H.

Liu, Jia-Quan. See Ding, Wei-Yue

Llibre, J. See Guillemon, A.

Llibre, Jaume. See Carme Leseduarte, M.

Llibre, Jaume and Saari, Donald G. Periodic orbits for the planar Newtonian three-body problem coming from the elliptic restricted three-body problems, 3017.
INDEX TO VOLUME 347

Loewen, Philip D. and Zheng, Harry H.  
Epi-derivatives of integral functionals with applications, 443.

Longobardi, P., Maj, M. and Rhemtulla, A. H.  
Groups with no free subsemigroups, 1419.

López-Gómez, Julián and de Lis, José C. Sabina.  
Coexistence states and global attractivity for some convective diffusive competing species models, 3797.

Lubinsky, D. S.  
Convergence of diagonal Padé approximants for functions analytic near 0, 3149.

Lucas, Pascual.  
See Alias, Luis J.

Lupton, Gregory and Oprea, John.  
Cohomologically symplectic spaces: toral actions and the Gottlieb group, 261.

MacGregor, T. H. and Ranning, F.  
Conditions on the logarithmic derivative of a function implying boundedness, 2245.

Madden, Kathleen M.  
A covering cocycle which does not grow linearly, 2225.

Madigan, Kevin and Matheson, Alec.  
Compact composition operators on the Bloch space, 2679.

Maj, M.  
See Longobardi, P.

Marchesin, D.  
See Azevedo, A. V.

Marcum, H. J.  
See Hardie, K. A.

Markfort, Annette.  
See Kaniuth, Eberhard

Matheson, Alec.  
See Madigan, Kevin

Mbekhta, M. and Vasilescu, F.-H.  
Uniformly ergodic multioperators, 1847.

McGowan, Jeffrey.  
See Dodziuk, Józef

McKenna, P. J.  
See Choi, Y. S.

Meda, Stefano.  
On the Littlewood-Paley-Stein g-function, 2201.

Melián, M. V.  
See Fernández, J. L.

Métivier, G.  
See Joly, J. L.

Miao, Tianxuan.  
The exposed points of the set of invariant means, 1401.

Miller, Harry I.  
A measure theoretical subsequence characterization of statistical convergence, 1811.

Miller, Kenneth G.  
See Elcrat, Alan R.

Milojević, P. S.  
On the dimension and the index of the solution set of nonlinear equations, 835.

Minami, Norihiko.  
The relative Burnside module and the stable maps between classifying spaces of compact Lie groups, 461.

Mischeikow, Konstantin, Smith, Hal and Thie, Horst R.  
Asymptotically autonomous semiflows: Chain recurrence and Lyapunov functions, 1669.

Moran, Gadi.  
On the period-two-property of the majority operator in infinite graphs, 1649.

de Mottoni, Piero and Schatzman, Michelle.  
Geometrical evolution of developed interfaces, 1533.

Mrowka, Tom.  
See Akbulut, Selman

Müller, P. F. X.  
Holomorphic martingales and interpolation between Hardy spaces: the complex method, 1787.

Nachman, Adrian I.  
See Isakov, Victor

Naito, Satoshi.  

Nathanson, Melvyn B.  
Inverse theorems for subset sums, 1409.

Neher, Erhard.  
See Berman, Stephen

Neugebauer, C. J.  
See Cruz-Uribe, David, SFO

Ng, C. T.  
See Chung, J. K.

Niederreiter, Harald.  
See Larcher, Gerhard

O'Farrell, Anthony G.  
See Dowling, Thomas

O'Meara, K. C.  
See Hannah, John

Oger, Francis.  
The direct decompositions of a group G with G/G' finitely generated, 1977.

Ogura, Hiroko.  
See Horie, Kuniai

Olesen, Martin.  
Algebraic field theory on curved manifolds, 2147.

Olmos, Carlos.  
Orbits of rank one and parallel mean curvature, 2927.

Omar, P.  
See Gossez, J.-P.

Oprea, John.  
See Lupton, Gregory

Ortega, J.  
See Guillamon, A.

Ortiz, Marwin.  
An access theorem for analytic functions, 2213.

Osterburg, James and Yao, Xue.  
The Connes spectrum of group actions and group gradings for certain quotient rings, 2263.

Ouyang, Caisheng, Yang, Weisheng and Zhao, Ruhan.  
Characterizations of Bergman spaces and Bloch space in the unit ball of \mathbb{C}^n, 4301.
INDEX TO VOLUME 347

Palagachev, Dian K.  
*Quasilinear elliptic equations with VMO coefficients*, 2481.

Papageorgiou, Nikolaos S.  
*On parametric evolution inclusions of the subdifferential type with applications to optimal control problems*, 203.

———  
*On the conditional expectation and convergence properties of random sets*, 2495.

———  
See Hu, Shouchuan

Park, Chull.  
See Huffman, Timothy

Passman, D. S. and Quinn, Declan.  
*Involuntary Hopf algebras*, 2657.

Pata, Vittorino.  
*Lévy type characterization of stable laws for free random variables*, 2457.

Peng, Xiao-Wei.  
See Jost, Jürgen

Peretz, Yossi.  
See Alpay, Daniel

Perkinson, David.  
*Curves in Grassmannians*, 3179.

Pechke, G.  
*Localization and genus in group theory*, 155.

Peterson, Franklin P.  
See Hu'ng Nguyen H. V.

del Pino, Manuel A.  
*Radially symmetric internal layers in a semilinear elliptic system*, 4807.

del Pino, Manuel A. and Felmer, Patricio L.  
*Multiple solutions for a semilinear elliptic equation*, 4839.

Piranian, George.  
See Belna, Charles L.

Pohjanpelto, Juha.  
See Branson, Thomas

Poliquin, René A.  
See Levy, Adam B.

Pollicott, Mark and Simon, Károly.  
*The Hausdorff dimension of λ-expansions with deleted digits*, 967.

Powell, J.  
See Alessandrini, G.

Premet, Alexander.  
*An analogue of the Jacobson-Morozov theorem for Lie algebras of reductive groups of good characteristics*, 2961.

Quigg, John C. and Raeburn, Iain.  
*Induced C*-algebras and Landstad duality for twisted coactions*, 2885.

Quinn, Declan.  
See Passman, D. S.

Rabier, Patrick J.  
*Global surjectivity of submersions via contractibility of the fibers*, 3405.

Radjavi, H.  
See Jafarian, A. A.

Raeburn, Iain.  
See Quigg, John C.

Ram, Arun.  
See Lalonde, Pierre

Range, R. M. and Stessin, M. I.  
*Bounded point evaluation in C^n*, 2169.

Rassias, Themistocles M.  
See Haruki, Hiroshi

Ratliff, L. J., Jr.  
See Heinzer, William

Rauch, J.  
See Joly, J. L.

Rausen, Martin.  
*Circle actions on rational homology manifolds and deformations of rational homotopy types*, 137.

Rauzy, Antoine.  
*Courbures scalaires des variétés d’invariant conforme négatif*, 4729.

Ravenel, Douglas C.  
See Hovey, Mark A.

Reincke, James F.  
*The connection matrix in Morse-Smale flows II*, 2097.

Rhemtulla, A. H.  
See Longobardi, P.

Riahi, Hasna.  
*Periodic orbits of n-body type problems: The fixed period case*, 4663.

Richards, K. C.  
See Anderson, G. D.

Richardson, Thomas M.  
*Local subgroups of the Monster and odd code loops*, 1453.

Ringland, John and Tresser, Charles.  
*A genealogy for finite kneading sequences of bimodal maps on the interval*, 4599.

Ripoll, J.  
See Fornari, S.

Rong, Liu.  
*On the classification of (n - k + 1)-connected embeddings of n-manifolds into (n + k)-manifolds in the metastable range*, 4245.

Rønning, F.  
See MacGregor, T. H.

Rosay, Jean-Pierre.  
See Ahern, Patrick

Rosenberger, G.  
See Lévai, L.

Rosenthal, P.  
See Jafarian, A. A.

Rovderová, Eva.  
*On the number of solutions of a third-order boundary value problem*, 3079.

Ruan, Yongbin.  
See Akbulut, Selman

Ryan, John.  
*Cauchy-Green type formulae in Clifford analysis*, 1331.

Sabińska de Lis, José C.  
See López-Gómez, Julián

Sahoo, P. K.  
See Chung, J. K.

Salas, Héctor N.  
*Hypercyclic weighted shifts*, 993.
INDEX TO VOLUME 347

Samelson, Sandra L. and Dayawansa, W. P. On the existence of global Tchebychev nets, 651.
Sanders, Marc. Classifying spaces and Dirac operators coupled to instantons, 4037.
Schatzman, Michelle. See de Mottoni, Piero
Schechter, G. See Le, Vy Khoi
Schultens, Jennifer. Heegaard splittings of Seifert fibered spaces with boundary, 2533.
Scott, Chad. Lp theory of differential forms on manifolds, 2075.
Sedaghat, Hassan. On the relational basis of Cayley's theorem and of similar representations for algebras, 3053.
Sepanski, Mark R. L2(q) and the rank two Lie groups: Their construction in light of Kostant's conjecture, 3983.
Shah, Kishor. See Heinzer, William
Shaman, Paul. See Zhang, Ping
Shelah, Saharon. See Eklof, Paul C.
Shen, Li-Chien. Remarks on some integrals and series involving the Stirling numbers and \( \zeta(n) \), 1391.
Shen, Wenxian and Yi, Yingfei. On minimal sets of scalar parabolic equations with skew-product structures, 4413.
Shen, Yi-Bing. On spectral geometry of minimal surfaces in \( \mathbb{C}P^n \), 3873.
Shepp, Larry A. and Vanderbei, Robert J. The complex zeros of random polynomials, 4365.
Shi, Shuzhong, Zheng, Quan and Zhuang, Deming. Discontinuous robust mappings are approximable, 4943.
Simanca, Santiago R. See Hwang, Andrew D.
Sime, Patrick J. On the ideal class group of real biquadratic fields, 4855.
Simon, Károly. See Pollicott, Mark
Skoug, David. See Huffman, Timothy
Slack, Michael. See Kuhn, Nicholas J.
Smith, Hal. See Mischkaikow, Konstantin
Smith, J. C. See Fast, Stephen H.
Smith, Karen E. Test ideals in local rings, 3453.
Smith, Larry. e-invariants and finite covers. II, 5009.
Smits, Bert. See Dumortier, Freddy
Smorodinsky, Meir. See Keane, Mike
Solecki, Slawomir. Equivalence relations induced by actions of Polish groups, 4765.
Solomyak, Boris. See Kaimanovich, Akihiro
Sourour, A. R. See Jafarian, A. A.
Souvignier, B. See Lévy, L.
Stadtmüller, Karin. See Große-Erdmann, Karl-Goswin
Staffeldt, Ross E. See Schwänzl, Roland
Stessin, M. I. See Range, R. M.
Suzuki, Haruo. Residue classes of Lagrangian subbundles and Maslov classes, 189.
Tam, Luen-fai. See Li, Peter
Thevenaz, Jacques and Webb, Peter. The structure of Mackey functors, 1865.
Thibault, L. See Jourani, A.
Thibault, Lionel. See Levy, Adam B.
Thieme, Horst R. See Mischkaikow, Konstantin
Thomas, R. M. See Howie, J.
Torregrosa, J. See Guillamon, A.
Totaro, Burt. Homology operations on a new infinite loop space, 99.
Tresser, Charles. See Ringland, John
Triantafillou, Georgia. Automorphisms of spaces with finite fundamental group, 3391.
Tsapogas, Georgios. On the K-theory of crystallographic groups, 2781.
Upmeier, H. See Duncan, T. E.
Uzcátegui, C. Calos E. Smooth sets for a Borel equivalence relation, 2025.
Vaillancourt, Jean. See Dawson, Donald A.
INDEX TO VOLUME 347

Vamanamurthy, M. K.  See Anderson, G. D.
Vanderbei, Robert J.  See Shepp, Larry A.
Varga, T.  See Gupta, A. K.
Vasilescu, F.-H.  See Mbekhta, M.
Vázquez, Juan L.  See Caffarelli, Luis A.
Vergasta, Enaldo.  See Dajczer, Marcos
Vermeer, J.  Continuous functions on extremally disconnected spaces, 3263.
Veys, Willem.  On Euler characteristics associated to exceptional divisors, 3287.
Vuorinen, M.  See Anderson, G. D.
Wang, Jiaping.  See Li, Peter
Wang, Ti.  Linear Chevalley estimates, 4877.
Warlimont, Richard.  See Knopfmacher, Arnold
Waterhouse, William C.  Automorphism group schemes of basic matrix invariants, 3859.
Webb, Peter.  See Thevenaz, Jacques
Weiss, Michael.  Orthogonal calculus, 3743.
Wiegand, Sylvia.  See Heinzer, William
Williams, Frank.  See Kuhn, Nicholas J.
Winslow, Carl.  Crossed products of II_1-subfactors by strongly outer actions, 985.
Xia, Yining.  On the cohomology of \( \Gamma_p \), 3659.
Xu, Hong-Wei.  On closed minimal submanifolds in pinched Riemannian manifolds, 1743.
Xu, Xiao-Quan.  Construction of homomorphisms of \( M \)-continuous lattices, 3167.
Yang, Chung-Chun.  See Zheng, Jian-Hua
Yang, Jae-Hyun.  Singular Jacobi forms, 2041.
Yang, Weisheng.  See Ouyang, Caiheng
Yang, Yimin.  On the coefficient groups of equivariant K-theory, 77.
Yao, Xue.  See Osterburg, James
Ye, Xiangdong.  See Li, Shihai
Yeh, R. Z.  Errata to “Analysis and applications of holomorphic functions in higher dimensions”, 1081.
Yi, Yingfei.  See Shen, Wenxian
Yim, Jin-whan.  Convexity of the ideal boundary for complete open surfaces, 687.
Yokura, Shoji.  On Cappell-Shaneson's homology L-classes of singular algebraic varieties, 1005.
Yong, Li and Zhenghua, Lin. A constructive proof of the Poincaré-Birkhoff theorem, 2111.
Young, Donald Francis.  When does unique local support ensure convexity?, 1323.
Yu, Hua-Ping.  See Camillo, Victor P.
Zhang, Genkai.  Some recurrence formulas for spherical polynomials on tube domains, 1725.
Zhang, Ping and Shaman, Paul.  Assessing prediction error in autoregressive models, 627.
Zheng, Harry H.  See Loewen, Philip D.
Zheng, Jian-Hua and Yang, Chung-Chun.  Further results on fixed points and zeros of entire functions, 37.
Zheng, Quan.  See Shi, Shuzhong
Zhenghua, Lin.  See Yong, Li
Zhong, Yong.  Irreducible semigroups of functionally positive nilpotent operators, 3093.
Zhou, Kecheng.  A note on norm inequalities for integral operators on cones, 1033.
Zhuang, Deming.  See Shi, Shuzhong
Živaljević, Boško.  \(|f|\) functions are almost internal, 2621.
Zumbrun, Kevin R.  Formation of diffusion waves in a scalar conservation law with convection, 1023.
TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY
CONTENTS

Vol. 347, No. 1 Whole No. 716 January 1995

Seong Joo Kang, Conormal and piecewise smooth solutions to quasilinear wave equations ........................................... 1
Jian-Hua Zheng and Chung-Chun Yang, Further results on fixpoints and zeros of entire functions ........................................ 37
Jürgen Jost, Xianqing Li-Jost, and Xiao-Wei Peng, Bifurcation of minimal surfaces in Riemannian manifolds .................. 51
Selman Akbulut, Tom Mrowka, and Yongbin Ruan, Torsion classes and a universal constraint on Donaldson invariants for odd manifolds ..... 63
Yimin Yang, On the coefficient groups of equivariant $K$-theory .................. 77
Burt Totaro, Homology operations on a new infinite loop space .......... 99
John Hannah and K. C. O'Meara, A new measure of growth for countable-dimensional algebras. I .......................... 111
Martin Raussen, Circle actions on rational homology manifolds and deformations of rational homotopy types .................. 137
G. Peschke, Localization and genus in group theory .......................... 155
John P. Labute, Free ideals of one-relator graded Lie algebras ............. 175
Haruo Suzuki, Residue classes of Lagrangian subbundles and Maslov classes .................................................... 189
Nikolaos S. Papageorgiou, On parametric evolution inclusions of the sub-differential type with applications to optimal control problems ... 203
Shouchuan Hu and Nikolaos S. Papageorgiou, Generalizations of Browder's degree theory .............................................. 233
Gregory Lupton and John Oprea, Cohomologically symplectic spaces: toral actions and the Gottlieb group ....................... 261
Linda M. Holt, Singularities produced in conormal wave interactions ...... 289
Gabriel Debs, Polar $\sigma$-ideals of compact sets ............................. 317
H. R. Hughes, Curvature conditions on Riemannian manifolds with Brownian harmony properties ................................... 339

Vol. 347, No. 2 Whole No. 717 February 1995

L. J. Hernández Paricio, Applications of simplicial $M$-sets to proper and strong shape theories ........................................ 363
Luis A. Caffarelli and Juan L. Vázquez, A free-boundary problem for the heat equation arising in flame propagation ............... 411
Philip D. Loewen and Harry H. Zheng, Epi-derivatives of integral functionals with applications ....................................... 443
Norihiko Minami, The relative Burnside module and the stable maps between classifying spaces of compact Lie groups ............. 461
A. M. Blokh, Functional rotation numbers for one-dimensional maps .... 499
I. Berkes, An optimal condition for the LIL for trigonometric series ...... 515
Gui-Qiang Chen and Constantine M. Dafermos, The vanishing viscosity method in one-dimensional thermoelasticity ................ 531
Patrick Ahern and Jean-Pierre Rosay, Entire functions, in the classification of differentiable germs tangent to the identity, in one or two variables 543
L. Ya. Vulakh, Diophantine approximation in \( \mathbb{R}^n \) .......................... 573
Jiye Yu, Weighted boundary limits of the generalized Kobayashi-Royden metrics on weakly pseudoconvex domains .......................... 587
Alan Adolphson and Bernard Dwork, Contiguity relations for generalized hypergeometric functions ................................................. 615
Ping Zhang and Paul Shaman, Assessing prediction error in autoregressive models .......................................................... 627
William Heinzer and Sylvia Wiegand, Prime ideals in polynomial rings over one-dimensional domains .................................. 639
Sandra L. Samelson and W. P. Dayawansa, On the existence of global Tchebychev nets ......................................................... 651
Timothy Huffman, Chull Park, and David Skoug, Analytic Fourier-Feynman transforms and convolution ........................................... 661
Daniel Alpay, Vladimir Bolotnikov, and Yossi Peretz, On the tangential interpolation problem for \( H_2 \) functions .......................... 675
Jin-whan Yim, Convexity of the ideal boundary for complete open surfaces 687
William Heinzer, L. J. Ratliff, Jr., and Kishor Shah, On the embedded primary components of ideals (IV) ........................................ 701
John Gregory and H. R. Hughes, Random quadratic forms ............ 709

Vol. 347, No. 3 Whole No. 718 March 1995

Dave Bayer and David Eisenbud, Ribbons and their canonical embeddings 719
David Eisenbud and Mark Green, Clifford indices of ribbons ............ 757
Karen A. Chandler, Geometry of dots and ropes ............................ 767
N. Sauer, On the Ramsey property of families of graphs .................. 785
P. S. Milojčević, On the dimension and the index of the solution set of nonlinear equations ....................................................... 835
N. V. Krylov, On the general notion of fully nonlinear second-order elliptic equations .................................................. 857
Krishnaswami Alladi, Some new observations on the Göllnitz-Gordon and Rogers-Ramanujan identities ........................................... 897
Frederick P. Gardiner, Infinitesimal bending and twisting in one-dimen-
sional dynamics ............................................................. 915
Thomas Branson, Peter Gilkey, and Juha Pohjanpelto, Invariants of locally conformally flat manifolds .............................. 939
Mike Keane, Meir Smorodinsky, and Boris Solomyak, On the morphology of \( \gamma \)-expansions with deleted digits .................................. 955
Mark Pollicott and Károly Simon, The Hausdorff dimension of \( \lambda \)-expansions with deleted digits ........................................... 967
Carl Winsløw, Crossed products of \( \text{II}_1 \)-subfactors by strongly outer actions 985
Héctor N. Salas, Hypercyclic weighted shifts .................................. 993
Shoji Yokura, On Cappell-Shaneson's homology \( L \)-classes of singular algebraic varieties .................................................. 1005
Andrew D. Hwang and Santiago R. Simanca, Distinguished Kähler metrics on Hirzebruch surfaces .................................................. 1013
Kevin R. Zumbrun, Formation of diffusion waves in a scalar conservation law with convection .................................................. 1023
Kecheng Zhou, A note on norm inequalities for integral operators on cones .................................................. 1033
Anatolij Dvurečenskij, Tensor product of difference posets .................................................. 1043
Wei-Yue Ding and Jia-Quan Liu, A note on the problem of prescribing Gaussian curvature on surfaces .................................................. 1059
Ha Huy Bang, Functions with bounded spectrum .................................................. 1067
R. Z. Yeh, Errata to “Analysis and applications of holomorphic functions in higher dimensions” .................................................. 1081

Vol. 347, No. 4  Whole No. 719  April 1995

T. E. Duncan and H. Upmeier, Stochastic control problems and spherical functions on symmetric spaces .................................................. 1083
J. K. Chung, B. R. Ebanks, C. T. Ng, and P. K. Sahoo, On a quadratic-trigonometric functional equation and some applications .................................................. 1131
Ryuji Kajikiya, Norm estimates for radially symmetric solutions of semilinear elliptic equations .................................................. 1163
Nicholas J. Kuhn, Michael Slack, and Frank Williams, Hopf constructions and higher projective planes for iterated loop spaces .................................................. 1201
Haitao Fan and Jack K. Hale, Attractors in inhomogeneous conservation laws and parabolic regularizations .................................................. 1239
A. Jourani and L. Thibault, Verifiable conditions for openness and regularity of multivalued mappings in Banach spaces .................................................. 1255
Adam B. Levy, René A. Poliquin, and Lionel Thibault, Partial extensions of Attouch’s Theorem with applications to proto-derivatives of subgradient mappings .................................................. 1269
Brenda Johnson, The derivatives of homotopy theory .................................................. 1295
Donald Francis Young, When does unique local support ensure convexity? .................................................. 1323
John Ryan, Cauchy-Green type formulae in Clifford analysis .................................................. 1331
Zhongmin Shen, A convergence theorem for Riemannian submanifolds .................................................. 1343
Wei Wang, A discrete transform and Triebel-Lizorkin spaces on the bidisc .................................................. 1351
H. H. Bauschke, A norm convergence result on random products of relaxed projections in Hilbert space .................................................. 1365
Bo Zhang, Asymptotic stability in functional differential equations by Liapunov functionals .................................................. 1375
James Guyker, The de Branges-Rovnyak model with finite-dimensional coefficients .................................................. 1383
Li-Chien Shen, Remarks on some integrals and series involving the Stirling numbers and ζ(ν) .................................................. 1391
Tianxuan Miao, The exposed points of the set of invariant means .................................................. 1401
Melvyn. B. Nathanson, Inverse theorems for subset sums .................................................. 1409
P. Longobardi, M. Maj, and A. H. Rhemtulla, Groups with no free subsemigroups .................................................. 1419
A. K. Gupta and T. Varga, Matrix variate $\theta$-generalized normal distribution .............................................. 1429

R. C. Cannings and M. P. Holland, Differential operators, $n$-branch curve singularities and the $n$-subspace problem ............................................. 1439

Vol. 347, No. 5 Whole No. 720 May 1995

Thomas M. Richardson, Local subgroups of the Monster and odd code loops .................................................. 1453

Piero de Mottoni and Michelle Schatzman, Geometrical evolution of developed interfaces .................................. 1533

Krishnaswami Alladi and Basil Gordon, Schur’s partition theorem, companions, refinements and generalizations .................. 1591

Eugenio Garnica Vigil, On the decomposition of Langlands subrepresentations for a group in the Harish-Chandra class ....... 1609

Gadi Moran, On the period-two-property of the majority operator in infinite graphs ........................................... 1649

Konstantin Mischaikow, Hal Smith, and Horst R. Thieme, Asymptotically autonomous semiflows: Chain recurrence and Lyapunov functions 1669

Kin Ming Hui, Singular limit of solutions of $u_t = \Delta u^m - A \cdot \nabla (u^q / q)$ as $q \to \infty$ .................................................. 1687


Genkai Zhang, Some recurrence formulas for spherical polynomials on tube domains ........................................... 1725

Bruce A. Barnes and Jon M. Clauss, Spectral and Fredholm properties of operators in elementary nest algebras .................. 1735

Hong-Wei Xu, On closed minimal submanifolds in pinched Riemannian manifolds .................................................. 1743

Weiyu Chen, On the $L^2$ inequalities involving trigonometric polynomials and their derivatives .............................. 1753

Bernd Kirchheim, Hausdorff measure and level sets of typical continuous mappings in Euclidean spaces .................... 1763

Valentin Deaconu, Groupoids associated with endomorphisms ................................................................. 1779

P. F. X. Müller, Holomorphic martingales and interpolation between Hardy spaces: the complex method ...................... 1787

Luis J. Alías, Angel Ferrández, and Pascual Lucas, Hypersurfaces in space forms satisfying the condition $\Delta x = Ax + B$ ......... 1793

Stephen H. Fast and J. C. Smith, Examples of $B(D, \lambda)$-refinable and weak $\theta$-refinable spaces ....................... 1803

Harry I. Miller, A measure theoretical subsequence characterization of statistical convergence ............................ 1811

Pierre Lalonde and Arun Ram, Standard Lyndon bases of Lie algebras and enveloping algebras .................................. 1821

B. J. Harris and Q. Kong, On the oscillation of differential equations with an oscillatory coefficient .......................... 1831
Lisbeth Fajstrup, Tate cohomology of periodic $K$-theory with reality is trivial .......................................................... 1841
M. Mbekhta and F.-H. Vasilescu, Uniformly ergodic multioperators .... 1847
Yuan Yan Chen, Statistical inference based on the possibility and belief measures ......................................................... 1855

Vol. 347, No. 6 Whole No. 721 June 1995

Jacques Thevenaz and Peter Webb, The structure of Mackey functors ... 1865
Akihiro Kanamori and Saharon Shelah, Complete quotient Boolean algebras .............................................................. 1963
Józef Dodziuk and Jeffrey McGowan, The spectrum of the Hodge Laplacian for a degenerating family of hyperbolic three manifolds ............. 1981
Francis Oger, The direct decompositions of a group $G$ with $G/G'$ finitely generated .................................................... 1997
Marino Belloni, Interpretation of Lavrentiev phenomenon by relaxation: the higher order case ............................................. 2011
Calos E. Uzcátegui A., Smooth sets for a Borel equivalence relation ..... 2025
Jae-Hyun Yang, Singular Jacobi forms ........................................ 2041
Gerhard Larcher and Harald Niederreiter, Generalized $(t,s)$-sequences, Kronecker-type sequences, and diophantine approximations of formal Laurent series .................................................. 2051
Chad Scott, $L^p$ theory of differential forms on manifolds ............... 2075
James F. Reineck, The connection matrix in Morse-Smale flows II .... 2097
Li Yong and Lin Zhenghua, A constructive proof of the Poincaré-Birkhoff theorem ............................................................ 2111
Ten-Ging Chen, Geometry of strictly convex domains and an application to the uniform estimate of the $\mathcal{O}$-problem ................. 2127
Joseph Auslander, David B. Ellis, and Robert Ellis, The regionally proximal relation ............................................................. 2139
Martin Olesen, Algebraic field theory on curved manifolds ................ 2147
Weiyu Chen, Some inequalities of algebraic polynomials with nonnegative coefficients ......................................................... 2161
R. M. Range and M. I. Stessin, Bounded point evaluation in $C^\omega$ .... 2169
Anne-Marie Aubert, Dualité dans le groupe de Grothendieck de la catégorie des représentations lisses de longueur finie d'un groupe réductif $p$-adique ................................................................. 2179
A. A. Jafarian, H. Radjavi, P. Rosenthal, and A. R. Sourour, Simultaneous triangularizability, near commutativity and Rota's theorem ..... 2191
Stefano Meda, On the Littlewood-Paley-Stein $g$-function ............... 2201
Marvin Ortel, An access theorem for analytic functions .................. 2213
Kathleen M. Madden, A covering cocycle which does not grow linearly . 2225
Arnold Knopfmacher and Richard Warlimont, Distinct degree factorizations for polynomials over a finite field .......................... 2235
T. H. MacGregor and F. Ronning, Conditions on the logarithmic derivative of a function implying boundedness ........................... 2245
Daniel (Zhuang-dan) Guan, Existence of extremal metrics on compact almost homogeneous Kähler manifolds with two ends ............... 2255

James Osterburg and Xue Yao, The Connes spectrum of group actions and group gradings for certain quotient rings ...................... 2263

Vol. 347, No. 7 Whole No. 722 July 1995

Donald A. Dawson, Andreas Greven, and Jean Vaillancourt, Equilibria and quasi-equilibria for infinite collections of interacting Fleming-Viot processes .................................................. 2277

Everett W. Howe, Principally polarized ordinary abelian varieties over finite fields .......................................................... 2361

Zhengyu Guan and Athanassios G. Kartsatos, Ranges of perturbed maximal monotone and m-accretive operators in Banach spaces ...... 2403

Marcos Dajczer and Enaldo Vergasta, Conformal hypersurfaces with the same Gauss map ...................................................... 2437

Vittorino Pata, Lévy type characterization of stable laws for free random variables ........................................................................ 2457

Amine Hadjar, Sur les structures de contact régulières en dimension trois 2473

Dian K. Palagachev, Quasilinear elliptic equations with VMO coefficients 2481

Nikolaos S. Papageorgiou, On the conditional expectation and convergence properties of random sets ........................................... 2495

Kuniaki Horie and Hiroko Ogura, On the ideal class groups of imaginary abelian fields with small conductor .................................. 2517

Jennifer Schultens, Heegaard splittings of Seifert fibered spaces with boundary ........................................................................ 2533

J.-P. Gossez and P. Omari, On a semilinear elliptic Neumann problem with asymmetric nonlinearities ......................................... 2553

Karl-Goswin Grosse-Erdmann and Karin Stadtmüller, Characterization of summability points of Nörlund methods ....................... 2563

G. Crombez, Viewing parallel projection methods as sequential ones in convex feasibility problems .............................................. 2575

Rong-Qing Jia, The Toeplitz theorem and its applications to approximation theory and linear PDE's .............................................. 2585

Eberhard Kaniuth and Annette Markfort, On C*-algebras associated to the conjugation representation of a locally compact group 2595

Bernard Beauzamy and Jérôme Dégot, Differential identities .............. 2607

Boško Živaljević, Π functions are almost internal ................................. 2621

Y. S. Choi, A. C. Lazer, and P. J. McKenna, On a singular quasilinear anisotropic elliptic boundary value problem ....................... 2633

Thomas Dowling and Anthony G. O'Farrell, Affine transformations and analytic capacities ...................................................... 2643

D. S. Passman and Declan Quinn, Involutory Hopf algebras .................. 2657

Alan R. Elcrat and Kenneth G. Miller, Variational formulas on Lipschitz domains ................................................................. 2669

Kevin Madigan and Alec Matheson, Compact composition operators on the Bloch space ....................................................... 2679
Paul Dupuis and Richard S. Ellis, The large deviation principle for a general class of queueing systems I .................................................. 2689
Bruno Chiarellotto, On Lamé operators which are pull-backs of hypergeometric ones ........................................................... 2753
Georgios Tsapogas, On the $K$-theory of crystallographic groups ........ 2781
Christian Berg and Antonio J. Duran, The index of determinacy for measures and the $\ell^2$-norm of orthonormal polynomials ............... 2795
Avner Dor, Immersions and embeddings in domains of holomorphy .... 2813
Nobuyuki Kato, A principle of linearized stability for nonlinear evolution equations ................................................................. 2851
Szymon Dolecki, Gabriele H. Greco, and Alojzy Lechicki, When do the upper Kuratowski topology (homeomorphically, Scott topology) and the co-compact topology coincide? .............................. 2869
John C. Quigg and Iain Raeburn, Induced C*-algebras and Landstad duality for twisted coactions ................................................. 2885
Ulf Backlund, Comparison of certain $H^\infty$-domains of holomorphy ...... 2917
Carlos Olmos, Orbits of rank one and parallel mean curvature ............ 2927
David Cruz-Uribe, SFO and C. J. Neugebauer, The structure of the reverse Hölder classes ......................................................... 2941
Alexander Premet, An analogue of the Jacobson-Morozov theorem for Lie algebras of reductive groups of good characteristics .......... 2961
Edward A. Azoff, Test problems for operator algebras ....................... 2989
E. V. Flynn, An explicit theory of heights ...................................... 3003
Jaume Llibre and Donald G. Saari, Periodic orbits for the planar Newtonian three-body problem coming from the elliptic restricted three-body problems .................................................. 3017
G. Alessandrini, V. Isakov, and J. Powell, Local uniqueness in the inverse conductivity problem with one measurement ...................... 3031
Faruk F. Abi-Khuzam, Hadamard convexity and multiplicity and location of zeros .............................................................. 3043
Hassan Sedaghat, On the relational basis of Cayley’s theorem and of similar representations for algebras ........................................ 3053
A. V. Azevedo and D. Marchesin, Multiple viscous solutions for systems of conservation laws .................................................. 3061
Eva Rovderová, On the number of solutions of a third-order boundary value problem ................................................................. 3079
Yong Zhong, Irreducible semigroups of functionally positive nilpotent operators ................................................................. 3093
Aharon Atzmon, Power regular operators ........................................ 3101
Hiroshi Haruki and Themistocles M. Rassias, A new functional equation of Pexider type related to the complex exponential function .... 3111
K. J. Falconer, Sub-self-similar sets ............................................. 3121
Dinh Van Huynh, A right countably sigma-CS ring with ACC or DCC on projective principal right ideals is left Artinian and QF-3 ............... 3131
Victor P. Camillo and Hua-Ping Yu, Stable range one for rings with many idempotents ......................................................... 3141
D. S. Lubinsky, Convergence of diagonal Padé approximants for functions analytic near 0 ......................................................... 3149
Tsiu-Kwen Lee, Left annihilators characterized by gpis          3159
Xiao-Quan Xu, Construction of homomorphisms of $M$-continuous lattices 3167
S. Fornari, K. Frensel, and J. Ripoll, Errata to “Hypersurfaces with constant mean curvature in the complex hyperbolic space”         3177

Vol. 347, No. 9 Whole No. 724 September 1995

David Perkinson, Curves in Grassmannians                       3179
Kathryn Lesh, Hybrid spaces with interesting cohomology        3247
J. Vermeer, Continuous functions on extremally disconnected spaces ... 3263
Willem Veys, On Euler characteristics associated to exceptional divisors 3287
C. K. Chu, D. Hong, and R. Q. Jia, Stability of optimal-order approximation by bivariate splines over arbitrary triangulations         3301
Roland Schwänzl and Ross E. Staffeldt, The approximation theorem and the $K$-theory of generalized free products 3319
Charles F. Dunkl, Intertwining operators associated to the group $S_3$ 3347
Victor Isakov and Adrian I. Nachman, Global uniqueness for a two-dimensional semilinear elliptic inverse problem 3375
Georgia Triantafillou, Automorphisms of spaces with finite fundamental group                                  3391
Patrick J. Rabier, Global surjectivity of submersions via contractibility of the fibers                       3405
Mahmoud Hesaaraki, The structure of MFD shock waves for rectilinear motion in some models of plasma 3423
Karen E. Smith, Test ideals in local rings                        3453
Mark A. Hovey and Douglas C. Ravenel, The 7-connected cobordism ring at $p = 3$ 3473
Jose M. Arrieta, Rates of eigenvalues on a dumbbell domain. Simple eigenvalue case                          3503
J. L. Fernández and M. V. Melián, Bounded geodesics of Riemann surfaces and hyperbolic manifolds 3533
Vijay Kodiyalam, Integrally closed modules over two-dimensional regular local rings                         3551
Robert Dalmasso, Elliptic equations of order $2m$ in annular domains ... 3575
Xianzhe Dai and Weiping Zhang, Circle bundles and the Kreck-Stolz invariant                                3587
Mohammed Guedda and Mokhtar Kirane, A note on singularities in semilinear problems                          3595
Charles L. Belna, Robert D. Berman, Peter Colwell, and George Piranian, The zero-sets of the radial-limit functions of inner functions 3605
J. Howie, V. Metaftsis, and R. M. Thomas, Finite generalized triangle groups                                    3613
L. Lévai, G. Rosenberger, and B. Souvignier, All finite generalized triangle groups                           3625
Peter Li, Luen-fai Tam, and Jiaping Wang, Harmonic diffeomorphisms between Hadamard manifolds .................................. 3645
Yining Xia, On the cohomology of $\Gamma_p$ .................................. 3659

Vol. 347, No. 10 Whole No. 725 October 1995

Thomas P. Branson, Sharp inequalities, the functional determinant, and the complementary series .................................. 3671
Michael Weiss, Orthogonal calculus .................................. 3743
Julián López-Gómez and José C. Sabina de Lis, Coexistence states and global attractivity for some convective diffusive competing species models .................................. 3797
A. Arias, T. Figiel, W. B. Johnson, and G. Schechtman, Banach spaces with the 2-summing property .................................. 3835
William C. Waterhouse, Automorphism group schemes of basic matrix invariants .................................. 3859
Yi-Bing Shen, On spectral geometry of minimal surfaces in $CP^n$ .................................. 3873
Satoshi Naito, Kazhdan-Lusztig conjecture for generalized Kac-Moody algebras. II: Proof of the conjecture .................................. 3891
J. L. Joly, G. Métivier, and J. Rauch, Focusing at a point and absorption of nonlinear oscillations .................................. 3921
Christopher Allday, Cyclic Sullivan–de Rham forms .................................. 3971
Mark R. Sepanski, $L_2(q)$ and the rank two Lie groups: Their construction in light of Kostant’s conjecture .................................. 3983
Matthias Hieber, $L^p$ spectra of pseudodifferential operators generating integrated semigroups .................................. 4023
Marc Sanders, Classifying spaces and Dirac operators coupled to instantons .................................. 4037
Tomasz Dubejko, Branched circle packings and discrete Blaschke products .................................. 4073
Kathryn E. Hare and Ivo Klemes, On permutations of lacunary intervals .................................. 4105
Freddy Dumortier and Bert Smits, Transition time analysis in singularly perturbed boundary value problems .................................. 4129
Didier Ausssel, Jean-Noël Corvellec, and Marc Lassonde, Mean value property and subdifferential criteria for lower semicontinuous functions .................................. 4147

Vol. 347, No. 11 Whole No. 726 November 1995

Bruce C. Berndt, S. Bhargava, and Frank G. Garvan, Ramanujan’s theories of elliptic functions to alternative bases .................................. 4163
Liu Rong, On the classification of $(n - k + 1)$-connected embeddings of $n$-manifolds into $(n + k)$-manifolds in the metastable range .................................. 4245
S. J. Bernau and C. B. Huijsmans, The order bidual of almost $F$-algebras and $D$-algebras .................................. 4259
Carmen Chicone, A geometric approach to regular perturbation theory with an application to hydrodynamics ........................................ 4559
John Ringland and Charles Tresser, A genealogy for finite kneading sequences of bimodal maps on the interval ........................................ 4599
K. A. Hardie, K. H. Kamps, and H. J. Marcum, A categorical approach to matrix Toda brackets ........................................ 4625
Shihai Li and Xiangdong Ye, Topological entropy for finite invariant subsets of $Y$ ........................................ 4651
Hasna Riahi, Periodic orbits of n-body type problems: The fixed period case ........................................ 4663
Nguyênh V. Hu'ng and Franklin P. Peterson, $A$-generators for the Dickson algebra ........................................ 4687
Antoine Rauzy, Courbures scalaires des variétés d'invariant conforme négatif ........................................ 4729
Belkacem Bendifallah, Shadow forms of Brasselet-Goresky-MacPherson ........................................ 4747
Sławomir Solecki, Equivalence relations induced by actions of Polish groups ........................................ 4765
A. Guillamon, X. Jarque, J. Llibre, J. Ortega, and J. Torregrosa, Periods for transversal maps via Lefschetz numbers for periodic points ........................................ 4779
Manuel A. del Pino, Radially symmetric internal layers in a semilinear elliptic system ........................................ 4807
Manuel A. del Pino and Patricio L. Felmer, Multiple solutions for a semi-linear elliptic equation ............................................. 4839
Patrick J. Sime, On the ideal class group of real biquadratic fields .... 4855
Ti Wang, Linear Chevalley estimates ........................................ 4877
M. Carme Leseduarte and Jaume Llibre, On the set of periods for σ maps 4899
Shuzhong Shi, Quan Zheng, and Deming Zhuang, Discontinuous robust mappings are approximatable ................................. 4943
Michael A. Bean, Binary forms, hypergeometric functions and the Schwarz-Christoffel mapping formula ................................ 4959
Azniv Kasparian, The variations of Hodge structure of maximal dimension with associated Hodge numbers $h^{2,0} > 2$ and $h^{1,1} = 2q + 1$ do not arise from geometry ..................................................... 4985
Larry Smith, $e$-invariants and finite covers. II ................................ 5009
Editorial Information

To be published in the Transactions, a paper must be correct, new, nontrivial, and significant. Further, it must be well written and of interest to a substantial number of mathematicians. Piecemeal results, such as an inconclusive step toward an unproved major theorem or a minor variation on a known result, are in general not acceptable for publication. Transactions Editors shall solicit and encourage publication of worthy papers of length exceeding 10 published pages. Published pages are the same size as those generated in the style files provided for \texttt{AMS-\TeX} or \texttt{AMS-\LaTeX}.

As of August 31, 1995, the backlog for this journal was approximately 3 issues. This estimate is the result of dividing the number of manuscripts for this journal in the Providence office that have not yet gone to the printer on the above date by the average number of articles per issue over the previous twelve months, reduced by the number of issues published in four months (the time necessary for editing and composing a typical issue).

A Copyright Transfer Agreement is required before a paper will be published in this journal. By submitting a paper to this journal, authors certify that the manuscript has not been submitted to nor is it under consideration for publication by another journal, conference proceedings, or similar publication.

Information for Authors and Editors

The first page must consist of a \textit{descriptive title}, followed by an \textit{abstract} that summarizes the article in language suitable for workers in the general field (algebra, analysis, etc.). The \textit{descriptive title} should be short, but informative; useless or vague phrases such as "some remarks about" or "concerning" should be avoided. The \textit{abstract} should be at least one complete sentence, and at most 300 words. Included with the footnotes to the paper, there should be the 1991 \textit{Mathematics Subject Classification} representing the primary and secondary subjects of the article. This may be followed by a list of \textit{key words and phrases} describing the subject matter of the article and taken from it. A list of the numbers may be found in the annual index of \textit{Mathematical Reviews}, published with the December issue starting in 1990, as well as from the electronic service e-MATH [\texttt{telnet e-MATH.ams.org} (or \texttt{telnet 130.44.1.100}). Login and password are \texttt{e-math}]. For journal abbreviations used in bibliographies, see the list of serials in the latest \textit{Mathematical Reviews} annual index. When the manuscript is submitted, authors should supply the editor with electronic addresses if available. These will be printed after the postal address at the end of each article.

Two copies of the paper should be sent directly to the appropriate Editor and the author should keep one copy.

\texttt{T\LaTeX} files available upon request. Authors may request a copy of the \texttt{T\LaTeX} files of their papers by sending e-mail to file-request@math.ams.org or by contacting the Editorial Department, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248. The request should include the title of the paper, the name(s) of the author(s), the name of the publication in which the paper has or will appear, and the volume and issue numbers if known. The \texttt{T\LaTeX} file will be sent to the author making the request after the article goes to the printer. If the requestor can receive Internet e-mail, please include the e-mail address to which the file should be sent. Otherwise please indicate a diskette
format and postal address to which a disk should be mailed. Note: Because \TeX production at the AMS sometimes requires extra fonts and macros that are not yet publicly available, \TeX files cannot be guaranteed to run through the author’s version of \TeX without errors. The AMS regrets that it cannot provide support to eliminate such errors in the author’s \TeX environment.

**Electronically Prepared Manuscripts.** The AMS encourages submission of electronically prepared manuscripts in \texttt{AMS-\LaTeX} or \texttt{AMS-\LaTeXe} because properly prepared electronic manuscripts save the author proofreading time and move more quickly through the production process. To this end, the Society has prepared author packages for each AMS publication. Author packages include instructions for preparing electronic manuscripts, the \textit{AMS Author Handbook}, samples, and a style file that generates the particular design specifications of that publication series for both \texttt{AMS-\LaTeX} and \texttt{AMS-\LaTeXe}.

Those authors who make use of these style files from the beginning of the writing process will further reduce their own efforts. Electronically submitted manuscripts prepared in plain \TeX or \LaTeX are normally not acceptable due to the high amount of technical time required to insure that the file will run properly through the AMS in-house production system. Users of plain \TeX should have little difficulty learning \texttt{AMS-\LaTeX}, and \LaTeX users will find that \texttt{AMS-\LaTeXe} is the same as \LaTeX with additional commands to simplify the typesetting of mathematics.

Authors with FTP access may retrieve an author package from the Society’s Internet node \texttt{e-MATH.ams.org} (130.44.1.100). For those without FTP access, the author package can be obtained free of charge by sending e-mail to \texttt{pub@math.ams.org} (Internet) or from the Publication Division, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248. When requesting an author package, please specify \texttt{AMS-\LaTeX} or \texttt{AMS-\LaTeXe}, Macintosh or IBM (3.5) format, and the publication in which your paper will appear. Please be sure to include your complete mailing address.

At the time of submission, authors should indicate if the paper has been prepared using \texttt{AMS-\LaTeX} or \texttt{AMS-\LaTeXe} and provide the Editor with a paper manuscript that matches the electronic manuscript. The final version of the electronic manuscript should be sent to the Providence office immediately after the paper has been accepted for publication. The author should also send the final version of the paper manuscript to the Editor, who will forward a copy to the Providence office. Editors will require authors to send their electronically prepared manuscripts to the Providence office in a timely fashion. Electronically prepared manuscripts can be sent via e-mail to \texttt{pub-submit@math.ams.org} (Internet) or on diskette to the Editorial Department, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248. When submitting an electronic manuscript, please be sure to include a message indicating in which publication the paper has been accepted. No corrections will be accepted electronically. Authors must mark their changes on their proof copies and return them to the Providence office. Complete instructions on how to submit files are included in the author package.

**Electronic graphics.** Figures may be submitted to the AMS in an electronic format. The AMS recommends that graphics created electronically be saved in Encapsulated PostScript (EPS) format. This includes graphics originated via a graphics application as well as scanned photographs or other computer-generated images.
If the graphics package used does not support EPS output, the graphics file should be saved in one of the standard graphics formats—such as TIFF, PICT, GIF, etc.—rather than in an application-dependent format. Graphics files submitted in an application-dependent format are not likely to be used. No matter what method was used to produce the graphic, it is necessary to provide a paper copy to the AMS.

Authors using graphics packages for the creation of electronic art should also avoid the use of any lines thinner than 0.5 points in width. Many graphics packages allow the user to specify a “hairline” for a very thin line. Hairlines often look acceptable when proofed on a typical laser printer. However, when produced on a high-resolution laser imagesetter, hairlines become nearly invisible and will be lost entirely in the final printing process.

Screens should be set to values between 15% and 85%. Screens which fall outside of this range are too light or too dark to print correctly.

Any inquiries concerning a paper that has been accepted for publication should be sent directly to the Editorial Department, American Mathematical Society, P. O. Box 6248, Providence, RI 02940-6248.
Editors

Two copies of papers intended for publication in Transactions or Memoirs should be addressed to the appropriate editor. Subjects, and the editors associated with them, follow.

Harmonic analysis, representation theory, and Lie theory to ROBERT J. STANTON, Department of Mathematics, Ohio State University, 231 West 18th Avenue, Columbus, OH 43210-1174; e-mail: stanton@function.mps.ohio-state.edu

Ergodic theory, dynamical systems, abstract analysis to DANIEL J. RUDOLPH, Department of Mathematics, University of Maryland, College Park, MD 20742; e-mail: djr@math.umd.edu

Algebra to EFIM ZELMANOV, Department of Mathematics, Yale University, 10 Hillhouse Avenue, New Haven, CT 06520; e-mail: zelmanov@math.yale.edu

Geometric topology, hyperbolic geometry, infinite group theory, and general topology to PETER SHALEN, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, Chicago, IL 60607-4348; e-mail: shalen@math.uic.edu

Algebraic topology and differential topology to MARK MAHOWALD, Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60288-2730; e-mail: mark@math.nwu.edu

Ordinary differential equations, partial differential equations, and applied mathematics to JOHN MALLET-PARET, Division of Applied Mathematics, Brown University, Providence, RI 02912-9000; e-mail: am438000@brownvm.brown.edu

Global analysis and differential geometry to ROBERT L. BRYANT, Department of Mathematics, Duke University, Durham, NC 27706-7706; e-mail: bryant@math.duke.edu

Probability and statistics to RICHARD DURRETT, Department of Mathematics, Cornell University, Ithaca, NY 14853-7901; e-mail: rtd@cornella.cit.cornell.edu

Combinatorics and Lie theory to PHILIP J. HANLON, Department of Mathematics, University of Michigan, Ann Arbor, MI 48109-1003; e-mail: phil.hanlon@math.lsa.umich.edu

Logic and universal algebra to GREGORY L. CHERLIN, Department of Mathematics, Hill Center, Busch Campus, New Brunswick, NJ 08903; e-mail: cherlin@math.rutgers.edu

Algebraic number theory, analytic number theory, and automorphic forms to WENCHING WINNIE LI, Department of Mathematics, Pennsylvania State University, University Park, PA 16802-6401

Complex analysis and complex geometry to DANIEL M. BURNS, Department of Mathematics, University of Michigan, Ann Arbor, MI 48109-1003; e-mail: burns@gauss.stanford.edu

Algebraic geometry and commutative algebra to LAWRENCE EIN, Department of Mathematics, University of Illinois, 851 S. Morgan (M/C 249), Chicago, IL 60607-7045; e-mail: U22425@uicvm.uic.edu

Real and harmonic analysis and elliptic partial differential equations to JILL C. PIPHER, Department of Mathematics, Brown University, Providence, RI 02910-9000; e-mail: jpipher@gauss.math.brown.edu

All other communications to the editors should be addressed to the Managing Editor, PETER SHALEN, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, Chicago, IL 60607-4348; e-mail: shalen@math.uic.edu.

MEMOIRS OF THE AMERICAN MATHEMATICAL SOCIETY

This bimonthly journal is devoted to research in pure and applied mathematics of much the same nature as appears in Transactions. An issue consists of one or more separately bound research tracts for which the author(s) has provided reproduction copy. Prior to 1975 this was published as a monograph series. The editorial committee is identical with that for the Transactions so that papers intended for publication in this series should be addressed to one of the editors.
TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY
CONTENTS
Vol. 347, No. 12 Whole No. 727 December 1995

Carmen Chicone, A geometric approach to regular perturbation theory with an application to hydrodynamics ........................................... 4559

John Ringland and Charles Tresser, A genealogy for finite kneading sequences of bimodal maps on the interval .......................................... 4599

K. A. Hardie, K. H. Kamps, and H. J. Marcum, A categorical approach to matrix Toda brackets .......................................................... 4625

Shihai Li and Xiangdong Ye, Topological entropy for finite invariant subsets of Y .......................................................... 4651

Hasna Riahi, Periodic orbits of n-body type problems: The fixed period case ................................................................................... 4663

Nguyễn H. V. Hu'ng and Franklin P. Peterson, A-generators for the Dickson algebra .......................................................... 4687

Antoine Rauzy, Courbures scalaires des variétés d'invariant conforme négatif .......................................................... 4729

Belkacem Bendifallah, Shadow forms of Brasselet-Goresky-MacPherson 4747

Sławomir Solecki, Equivalence relations induced by actions of Polish groups .......................................................... 4765

A. Guillamon, X. Jarque, J. Llibre, J. Ortega, and J. Torregrosa, Periods for transversal maps via Lefschetz numbers for periodic points ........... 4779

Manuel A. del Pino, Radially symmetric internal layers in a semilinear elliptic system .......................................................... 4807

Manuel A. del Pino and Patricio L. Felmer, Multiple solutions for a semilinear elliptic equation .......................................................... 4839

Patrick J. Sime, On the ideal class group of real biquadratic fields ........... 4855

Ti Wang, Linear Chevalley estimates .......................................................... 4877

M. Carme Leseduarte and Jaume Llibre, On the set of periods for σ maps 4899

Shuzhong Shi, Quan Zheng, and Deming Zhuang, Discontinuous robust mappings are approximatable .......................................................... 4943

Michael A. Bean, Binary forms, hypergeometric functions and the SchwarzChristoffel mapping formula .......................................................... 4959

Azniv Kasparian, The variations of Hodge structure of maximal dimension with associated Hodge numbers $h^{2,0} > 2$ and $h^{1,1} = 2q + 1$ do not arise from geometry .......................................................... 4985

Larry Smith, $e$-invariants and finite covers. II .......................................................... 5009