Doctoral Degrees Conferred 1993–1994

The following list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 1993, to June 30, 1994) reported in the 1994 Annual AMS-IMS-MAA Survey by 200 departments in 142 universities in the United States. Each entry contains the name of the recipient and the thesis title. The number in parentheses following the name of the university is the number of degrees listed for that university. A supplementary list, containing names received since compilation of this list, will appear in a spring 1995 issue of the *Notices*.

ALABAMA

Auburn University (8)

DISCRETE AND STATISTICAL SCIENCES

Datta, Anjali Ghosh, *Differences of solutions of finite difference equations with respect to initial and boundary values.*

Kaufmann, Eric Roger, *Green's functions and singular boundary value problems.*

Wantland, Evan Bruce, *Edge-colorings, factorizations, embeddings and connectivity.*

Yin, Kuo-chuan, *Singular boundary value problems.*

MATHEMATICS

Ma, Daniel King, *The Baire property of function spaces with the compact-open theory.*

Rossi, Patrick Arnold, *A-balanced and A-cobalanced sequence.*

Schmidt, Bettina, *Bifurcation of stationary solutions for Legendre-type boundary value problems arising from energy balance climate models.*

Smith, Edwin Hardy, *Covering the plane with congruent copies of a convex disk.*

University of Alabama at Birmingham (4)

BIOSTATISTICS

Huang, Xin, *Survival trees with time-dependent covariates.*

McMillan Smoot, Tonya, *The use of cubic spline interpolation in the analysis of incomplete stationary time series.*

Taumokumo, Francois, *Statistical inference on the parameters of a generalized logistic distribution: Berkson's approach.*

MATHEMATICS

Pitt-Pladdy, Christopher Hilary James, *Resolvent estimates for Dirac operators.*

University of Alabama, Tuscaloosa (9)

MANAGEMENT SCIENCE

Begur, Sachidananda V., *Capacitated multi-period vehicle routing with fixed period length—A Lagrangian relaxation based sub-gradient approach.*

Dhakar, Tej S., *Multiple level lot sizing with component part commonality.*

Jeong, Jong Sik, *An intelligent computer-assisted rater trainer (ICART) with fault tree analysis for isolating rating errors.*

Reynolds, Steven Bailey, *A neural network approach to Box-Jenkins model identification.*

Sen, Babita, *An approach to analyzing and comparing modeling tools for manufacturing systems.*

Shastry, Kiron A., *Inventory policies under stochastic prices.*

Wang, Jiin, *A knowledge-based methodology and platform for manufacturing system qualification.*

STATISTICS

Sullivan, Joseph H., *A comparison of fuzzy forecasting and Markov modeling.*

Superville, Claude Romuald, *Forecast-based quality control schemes.*

ARIZONA

Arizona State University (4)

MATHEMATICS

Chen, Jhien Shien, *Numerical solution of induction equation of magnetohydrodynamics.*

Gupta, Dipankar, *Global analysis of splitting subspaces.*

Nejib, Smaoui, *Analyzing instabilities in the Burgers and the Kolmogorov flow equations.*

Shen, Hao, *Monodromy and torsion algebraic cyles.*

University of Arizona (7)

APPLIED MATHEMATICS

Aarsvold, John, *Multiple-pinhole transaxial tomography: A model and analysis.*

Alameddine, Mona, *Size structured competition models with periodic coefficients.*

Cheng, Yi-Fen, *The structure of shock waves in the asymptotic magnetohydrodynamics system.*

Courtemanche, Marc, *Reentrant waves in excitable media.*

Rauschenberg, David, *Computer-graphical exploration of large data sets from teletraffic.*

Rossi, Louis, *A spreading blob vortex method for viscous bounded flows.*

Solis, Francisco, *Geometric aspects of local adaptive Galerkin bases.*

CALIFORNIA

California Institute of Technology (9)

APPLIED MATHEMATICS

Buntine, James Douglas, *Part I: Inviscid swirling flows and vortex breakdown. Part II: Numerical investigation of the Lundgren turbulence model.*

Conley, Andrew J., *New plane shear flows.*

Edwards, David A., *A model for nonlinear diffusion in polymers.*

von Sosen, Harald Bernd, *Part I: Folds and bifurcations in the solutions of semi-explicit differential-algebraic equations. Part II: The recursive projection method applied to differential-algebraic equations and incompressible fluid mechanics.*

MATHEMATICS

Das, Kaustuv Mukul, *Homotopy and homology of p-subgroup complexes.*

Kolasa, Lawrence Alexander, *Oscillatory integral operators related to pointwise convergence of Schrodinger operators.*

Kovačević, Nataša, *Möbius-like groups of homeomorphisms of the circle.*

Lesin, Alexander Abraham, *On the Mumford-Tate conjecture for Abelian varieties with reduction conditions.*

Sitaraman, Sankar, *Arithmetic of cyclotomic fields and Fermat-type equations.*

Naval Postgraduate School (2)

MATHEMATICS

Krahn, Gary William, *Double Eulerian cycles on de Bruijn digraphs.*

Robinson, Bruce, *A multilevel approach to the algebraic image reconstruction problem.*

Stanford University (13)

ENGINEERING-ECONOMIC SYSTEMS

Ahn, Jae Hyeon, *Optimal option-exercising strategy with an application for kidney transplant decisions.*

Chin, Richard J., *Product selection in information product market.*

Ley-Borras, Roberto, *Decision making and probabilistic forecasting of conflict outcomes.*

Lowell, David Gene, *Sensitivity to relevance in decision analysis.*

Poh, Kim Leng, *Utility-based categorization.*

Poland, William Babcock, III, *Decision anlaysis with continuous and discrete variables: A mixture distribution approach.*

Regan, Peter J., *Design and construction of normative risk management and decision systems.*

Zorovic, Aleksandar Sasa, *Industrial policy: Politics, market structure, and international trade.*

MATHEMATICS

Betz, Martin, *Floer homology, operations and categories.*

Ho, David, *Acoustic scattering from locally inhomogeneous surfaces.*

Kallel, Sadok, *The topology of the divisor spaces on a Riemann surface.*

Kolountzakis, Mihail, *Probabilistic and constructive methods in harmonic analysis and additive number theory.*

Stone, Andrew, *Singular and boundary behaviour in the mean curvature flow of hypersufaces.*

University of California, Berkeley (44)

BIOSTATISTICS

Lee, Ming Kong, *Haplotype analysis and localization of disease genes.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Bushnell, James, *Multi-dimensional revelation in auctions for electric power supply.*

Covaliu, Zvi, *Representation and solution of decision problems using sequential diagrams.*

Herschkorn, Stephen Jay, *A Bayesian approach to the processor reordering problem.*

Verma, Sushil Kumar, *Analog computation, artificial neural networks and convex optimization.*

MATHEMATICS

Akao, James, *Phase transitions and connectivity in three-dimensional vortex equilibria.*

Baldinger, Robert, *Gaps in finite directed structures.*

Bates, Sean M., *Symplectic end invariants and C^0 symplectic topology.*

Chen, Jianduan, *Connes' invariant $X(M)$ and cohomology of groups.*

Dasgupta, Abhijit, *Studies in Borel sets.*

Day, David Minot, III, *Semi-duality in the two-sided Lanczos algorithm.*

Emmanouil, Ioannis, *The cyclic homology of affine algebras.*

Farbman, Samuel Jonathan P., *The unique product property of groups and their amalgamated free products.*

Feldman, Mikhail, *Partial regularity of heat flows for harmonic maps into spheres.*

Germain, Emmanuel Claude, *KK-theory of reduced free product C^*-algebras with amalgamation over $C(X)$.*

Hajac, Piotr M., *Stron connections and $Uq(2)$-Yang-Mills theory on quantum principal bundles.*

Hamkins, Joel David, *Lifting and extending measures; fragile measurability.*

Hildebrand, Craig Brin, *Nonisotropic motion of surfaces and Huygen's principle.*

Huynh, Hsneh-Ling, *General trigonometric relations in symmetric spaces, with subsequent reflections on the nature of metrically conservative societies.*

Israel, Isaac, *Computing motion by modified mean curvature.*

Jerrard, Robert J., *Fully non-linear phase field equations and generalized curvature motion.*

Lee, Seng-Hwang, *Arrangements of 13 and 14 points on the unit sphere with maximum minimum distance.*

Lewis, Andrew Marc, *Large dilators and large cardinals, and determinancy in small admissible sets.*

Malajovich Munõz, Gregorio, *On the complexity of path-following Newton algorithms for solving systems of polynomial equations with integer coefficients.*

Minehart, Deborah F., *Essays in microeconomics.*

Minion, Michael L., *A numerical study of vortex patch filamentation on locally refined grids.*

Moews, David John, *On some combinatorial games connected with Go.*

Nica, Alexandru M., *Operator algebra free products, linearization of free convolution, and crossings of partitions.*

Nollet, Scott Robert, *Integral curves in even linkage classes.*

Pappas, Christian Elgin, *Extensions of immersions of manifolds into Euclidean spaces.*

Patch, Sara K., *Recursive recovery of Markov transition probabilities from boundary value data.*

Pilgrim, Kevin M., *Cylinders for iterated rational maps.*

Poonen, Bjorn M., *The Mordell-Weil theorem, rigidity, and pairing for Drinfeld modules.*

Pryor, Duaine W., *An investigation of the vortex methods.*

Quah, John Kim-Ho, *Essays on demand aggregation.*

Rebholz, Joachim A., *Planar diffusions with applications to mathematical finance.*

Sand, Michael D., *Operator ranges and non-cyclic vectors for the backward shift.*

Semwogerere, Frederick, *Discrete representatives of the Bratteli non-commutation spheres.*

Silva, Jorge-Nuno, *Some notes on the theory of Hilbert spaces of analytic functions on the unit disc.*

Vanderwerf, Joel Jamshid, *Wreath decompositions of algebras.*

Wearer, Nikolai I., *Lipschitz spaces.*

Yang, Yao, *Accuracy of the GDS and DGDS algorithms.*

Yiu, Siu Wai, *Computing L-series and the rank of semistable elliptic curves over Q.*

Yu, Baozhen, *Some computations of Donaldson's invariants via flat connections.*

University of California, Davis (7)

MATHEMATICS

Brannen, Noah Samuel, *The Wills conjecture.*

Cooley, Anne, *Extremum problems for simplices inside convex bodies.*

Gao, Lisheng, *Magnetic resonance blood flow measurement using velocity encoded phase imaging.*

Heath, Daniel, *Heegaard splittings of I-bundles and $\mathbf{R}P$ and S^1 are standard.*

Mortensen, Jeffrey Ward, *On Riemann type integration over Caccioppoli sets.*

Wardlaw, Kirk A., *Numbers and propositional functions based upon generalized Boolean rings.*

STATISTICS

Neath, Andrew A., *On Bayesian inference for nonidentifiable models.*

University of California, Irvine (3)

MATHEMATICS

Chen, Lang, *Operators on the Bloch and Bergman spaces of several complex variables.*

O'Leary, Michael Lind, Jr., *Combinatorial equivalents to the existence of non-projective Whitehead modules and some consequences.*

Wang, Jiaping, *Harmonic maps between complete manifolds.*

University of California, Los Angeles (17)

MATHEMATICS

Barnett, Lance, *Type III free product von Neumann algebras and their central sequences.*

Bays, Timothy, *Multi-cardinal phenomena in stable theories.*

Cassorla, Mark, *Explosions and collapses in Riemannian geometry.*

Ceccherini, Tullio, *Approximately inner and centrally free commuting squares of type II_1 factors and their classification.*

Cook, Michele, *The connectedness of space curve invariants.*

Fernandez del Busto, Guillermo, *Two applications of the method of Kawamata-Reid-Shokuvov to the case of algebraic surfaces.*

Iliadis, Iakovos, *Spaces of accessible group actions, infinite torsion groups and deformations of triangles.*

Luo, Erding, *Multigrid method for partial differential equations with oscillatory coefficients.*

Masek, Vladimir, *Adjoint linear series on projective surfaces and threefolds.*

Oden, Kevin David, *Isoperimetric inequalities and the gap between the first and second eigenvalues.*

Rippel, Christoph Johann, *Generic initial ideal theory for coordinate rings of flag varieties.*

Spisic, Damir, *The newsboy problem.*

Sussman, Mark, *A level set approach for computing solutions to incompressible two-phase flow.*

Szeto, Theodore L. Doug, *Conjugate gradient-type product methods for solving nonsymmetric linear systems.*

Tortora, Alfonso, *Generic initial ideals and the lifting problem in codimension two.*

Volcheck, Emil John III, *Resolving singularities and computing in the Jacobian of plane algebraic curve.*

Zhao, Yunwei, *Braided Hopf algebras and quantum groups.*

University of California, Riverside (8)

MATHEMATICS

Fisher, Jonathan D., *Minimal norm extensions.*

Ren, Zhongdao, *Packing in Orlicz function spaces.*

Watson, Timothy D., *Potential in continuum games.*

STATISTICS

Al-Hessainan, Adel, *The Lorenz curve and its applications: Bayesian estimation of the parameters of the generalized logistic-Burr system of distributions.*

Al-Sabah, Walid Sabah, *Minimal composite designs for the second order response surface model.*

Lee, Mushang, *Parametric and nonparametric estimators of survival distribution: An application of the Gibbs sampler.*

Melgar-Morales, Mario Francisco, *Estimation and design of yield-density models for intercropping experiments.*

Shah, Aarti S., *Estimation of parameters for the Burr XII distribution.*

University of California, San Diego (13)

MATHEMATICS

Baeuerle, Frank Andreas, *Complexity theoretic algebra.*

Billey, Sara Cosette, *An abstract definition of Schubert polynomials extending to classical groups.*

Braunstein, Jerome Gene, *Composite phase-one methods for linear programming.*

Brindle, Stephen H., *The total curvature of manifolds.*

Chiu, Yukuang, *Topics on prediction and representation of stationary processes.*

Gould, Robert Lynn, *A semi-parametric approach to random effects estimation.*

Kramer, Michael, *The fluctuation of the Gaussian likelihood for stationary random sequences.*

Kulikauskas, Andrius Jonas, *Symmetric functions of the eigenvalues of a matrix.*

Minami, Mihoko, *Variance estimation for simultaneous response growth curve models.*

Olwell, Kevin Daniel, *A family of solitons for the Gauss curvature flow.*

Reiner, Ethan Joseph, *Some applications of the theory of orbit harmonics.*

Tangedal, Brett A., *The conjectures of Sands and Stark for special values of Abelian L-functions.*

Trimble, Cynthia Edith, *Some special functions on p-adic and finite analogues of the Poincaré upper half plane.*

University of California, Santa Barbara (8)

MATHEMATICS

Chen, Yeh-Chan, *A continuous inverse of Lyapunov's convexity theorem.*

Fairchild, Samuel Edward, *Ring theory of Witt rings of higher level.*

Kowng, Hway-Zean, *Straightening tori in Heegard splittings via stabilizations.*

Lazar, Matthew Thomas, *Two-sided equivalence, double cosets.*

Schwennicke, Robert Albin, *Witt rings of elliptic curves.*

Steele, Timothy, *Omega limit sets for functions exhibiting controlled growth.*

Vuong, Hung Nhon, *Classification of self-similar Cantor sets of R^n up to bi-Lipschitz equivalence.*

Wyels, Cynthia Jean, *Permutation equivalence and permutation congruence.*

University of California, Santa Cruz (6)

MATHEMATICS

Glass, Julie, *On an explicit isomorphism of standard level one modules for affine orthogonal Lie algebras.*

Khayat, Kerim, *Asymptotic behavior for solutions to parabolic conservation laws and stability analysis for systems of Mathieu equations.*

Lansdon, Robert, *Bifurcations, chaos, and symmetry in discrete dynamical systems.*

Martin, Yves, *On multiplicative eta-quotients.*

Mittagunta, Girija, *Reduced spaces for coupled rigid bodies and their relation to relative equilibria.*

Norris, Nancy, *Classifying networks: When can two anonymous networks compute the same vector-valued functions?.*

University of Southern California (3)

MATHEMATICS

Hennig, Elke Marion, *Small random perturbations of dynamical systems with stable limit cycles.*

Lai, Chen-Yao George, *Analysis and implementation of certain multilevel and domain decomposition methods for elliptic problems.*

Trgo, Aurelija, *Scattering for linear difference operators.*

COLORADO

Colorado School of Mines (5)

MATHEMATICAL AND COMPUTER SCIENCES

Bateman, Raymond M., *A personnel accession and inventory projection model for the Warrant Officer Corps of the United States Army using non-linear programming.*

Long, Julia B., *Metamodeling utilizing D-optimal designs as applied to large scale simulations.*

Wilger, Thomas, *The use of the analytic hierarchy process for mixed integer programming problem.*

Woempner, Mark S., *Multiple choice programming, a generalized reduced gradient method for solving mixed integer problems with zero-one and continuous variables.*

Xie, Yuantao, *System identification using dynamic neural networks.*

Colorado State University (7)

MATHEMATICS

Grunau, Daryl Wayne, *Lattice methods for modeling hydrodynamics.*

Murray, Glenn Allen, *The Gaussian map on smooth toric surfaces.*

Siyyam, Hani Ibrahim Abdel-Rahman, *Numerical integration over implicitly defined curves.*

Syam, Muhammed Ibrahem Abdel-Rahman, *An iterative method for solving a discrete Chebyshev approximation to boundary value problems.*

STATISTICS

Huzurbazar, Aparna V., *Predictive distributions in stochastic systems.*

Liao, Chen-Tuo, *Fractional factorial designs for estimating location effects and screening dispersion effects.*

Stramer, Osnat, *Continuous time threshold ARMA processes.*

University of Colorado, Boulder (9)

APPLIED MATHEMATICS

Mizzi, Arthur, *Spectral representation of the vertical coordinate in three-dimensional atmospheric models on tropical b- and f-planes.*

Sundbye, Linda, *Global existence of solutions for the viscous shallow water equations.*

MATHEMATICS

Ancona, Fabio, *Normal forms for vector fields with respect to an arbitrary decision.*

Aragon, Regina, *Completions of the theory of Boolean algebras with a distinguished ideal.*

Dean, Glenn, *Topics in set theory.*

Elcan, Amie, *Optimal customer return rates for an M/M/1 queueing system with retrials.*

McArthur, John, *Operator splitting in hovering mode computation.*

Oty, Karla, *Fourier-Stieltjes algebras for R-discrete groupoids.*

Willis, Mark, *Sectional topology and the ergodicity of skew products.*

University of Colorado at Denver (4)

APPLIED MATHEMATICS

Gilford, Robbin, *An analysis of degeneracy.*

Heine, George W., *Smart simulated annealing.*

Quinlan, Daniel, *Parallel adaptive mesh refinement: Algorithms and object-oriented design.*

Yang, Gao-Ming, *Fast multigrid solvers for transport equations.*

University of Northern Colorado (10)

MATHEMATICAL SCIENCES

Chang, Yin-Jung, *Proposed new tests for outliers.*

Duchrow, Linda, *Effect of HyperCard based electronic performance support system on teacher attitude towards mathematics.*

Hsieh, Chi-Hung, *A Monte Carlo simulation of SD estimators among jacknife and bootstrap methods.*

Leu, Shirong, *Comparison of estimators for testing hypotheses.*

Ma, Hsiu-Lan, *A comparative study between a traditional instruction and a multimedia instruction in mathematical problem-solving achievement of the sixth grade students in Taiwan, the Republic of China.*

Olsen, James, *The effect of the use of number lines representations on student understanding of basic function concepts.*

Pan, Hung-Ming, *Metacognitive behaviors in mathematics problem solving.*

Poole, James, *The application of tracking signals in technical trading rules for trading stocks on the NY Stock Exchange.*

Samp, Eric, *Markov-type multivariate control schemes.*

Wu, Der-Bang, *A study of the use of the van Hiele model in the teaching of non-Euclidean geometry to prospective elementary school teachers in Taiwan, the Republic of China.*

CONNECTICUT

University of Connecticut (7)

MATHEMATICS

Boman, Eugene Clayton, *Fast algorithms for Toeplitz equations.*

Chen, Yong-Hong, *Sign patterns of generalized inverses of M-matrix.*

Chen, Zhiqiang, *On some generalized median.*

Lafleur, Reiff Stauffer, *On cotypesets of finite rank torsion-free abelian groups.*

STATISTICS

Birmiwal, Lea Reyes, *Bayesian robustness measures under different classes of priors.*

Peng, Fengchun, *On the use of information and divergence measures in Bayesian analysis.*

Sahu, Sujit K., *Strategies for efficient implementation of MCMC algorithms.*

Wesleyan University (2)

MATHEMATICS

Kong, Qing-Shou, *Twofold mixing implies threefold mixing for rank one actions of Z^2.*

Zhou, Haoxuan, *Homogeneity property and power spaces.*

Yale University (7)

MATHEMATICS

Etingof, Pavel Ilyich, *Representation theory and holomorphic systems.*

Foy, John Martin, *Probability and enumeration results in the theory of finite models.*

Monzon, Lucas Alejandro, *Constructive multiresolution analysis, and the structure of quadrature mirror filters.*

Nakamaye, Michael James, *Dyson's lemma and the product theorem.*

Swallow, John Richard, *Constructive solutions to central embedding problems.*

Ward, Lesley Ann, *Fuchsian groups, quasiconformal groups, and conical limit sets.*

STATISTICS

Ma, Zhiwei, *Resampling a stationary time series.*

DELAWARE

University of Delaware (3)

MATHEMATICAL SCIENCES

Fiorini, Eugene Raymond, Jr., *On some extremal properties of bipartite graphs of large girth.*

Ganju, Jitendra Hirday, *Diagnostics for inherent split-plotting in designed experiments.*

Marcozzi, Michael David, *Variational methods for the potential flow past an airfoil.*

DISTRICT OF COLUMBIA

American University (5)

MATHEMATICS AND STATISTICS

Awartani, Faisal, *Adaptive optimal designs applied to the logistic model.*

Byekwaso, Serapio, *Bayesian sequential inference for error rates and error amounts in accounting data.*

Kondleis, Euripides, *Testing linearity with applications to clines.*

McShea, Maureen, *A comparison of male and female students' mathematics coursework and how it affects their income.*

O'Connell, Julie, *Influence on smoothness in penalized likelihood regression for binary data.*

Catholic University of America (1)

MATHEMATICS

Bonner, Steven H., *The isomorphism between the category of Lebesgue spaces of functions taking values in a locally compact field and the category of Lebesgue measures over σ-algebras of sets.*

George Washington University (2)

OPERATIONS RESEARCH

Chen, Jingxian, *Composite reliability and its hierarchical Bayes estimation.*

Wilson, Simon Paul, *Failure modeling with multiple scales.*

FLORIDA

Florida Institute of Technology (2)

APPLIED MATHEMATICS

Drici, Zahia, *Stability of large-scale nonlinear dynamic systems.*

Shaw, Michael, *Contributions to the theory of matrix differential equations.*

Florida State University (11)

MATHEMATICS

Chen, Ping, *Supersonic jet noise generated by large turbulent structures/instability waves.*

Dong, Zhong, *Fundamental problems in computational acoustics.*

Du, Zihua, *Acoustic and Kelvin-Helmholtz instability waves of twin supersonic jets.*

Qian, Edward, *Self-consist models of galaxies in equilibrium and potential-density relations of flat.*

Rhee, Jung Soo, *The boundedness of a certain convolution operator.*

Song, Ruiya, *Properties of zeta regularized products.*

Wang, Zhi, *Variational data assimilation with 2-D shallow water equations and 3-D global spectral.*

Webb, Jay C, *Finite difference algorithms for computational acoustics and 2-D supersonic jet simulation.*

STATISTICS

Chen, Ching-Hsiang, *Identifying influential effects in factorial experiments with sixteen runs: Empirical Bayes approaches.*

Lee, Wen-Chiung, *Generating Poisson and binomial random variates.*

Lin, Chien-Tai, *The computation of probabilities which involve spacings, with applications to the scan statistics.*

University of Florida (9)

MATHEMATICS

Dowd, Michael Francis, *Some 1-cohomology computations for groups of Lie type of rank 4 in characteristic 2.*

Griffin, Kristine L., *$PSL(2, q)$ acting totally irregularly on finite projective planes.*

Lee, Joo Sung, *Hilbert-Smith conjecture and prime end theory on 3-manifolds.*

Purandar, Sarmah, *Application of eigenvalue sensitivity and eigenvector sensitivity in eigencomputations.*

Radas, Sonja, *$PSL(3, q)$ as a totally irregular collineation group.*

Song, Renming, *Feynman-Kac semigroups with discontinuous additive functionals, gauge theorems and applications to Dirichlet problems.*

Yang, Yongzhi, *A counting formula for edge reconstruction of graphs.*

STATISTICS

Gieser, Peter W., *A new nonparametric test for independence between two sets of variates.*

Natarajan, Kannan, *Hierarchical Bayes analysis for continuous and discrete data.*

University of Miami (3)

MATHEMATICS AND COMPUTER SCIENCE

Belgacem, Fethi, *On elliptic boundary value problems with indefinite weights: Variational formulations of the principal eigenvalue and applications.*

Horta, Arnaldo, *Studies in Lorentzian geometry and mathematical relativity.*

Oropesa, Leticia, *Mathematics anxiety and course content: In search of a discrete correlation.*

University of South Florida (1)

MATHEMATICS

Wing, Philip L., *Stability and control analysis of stochastic bilinear systems.*

GEORGIA

Emory University (3)

MATHEMATICS AND COMPUTER SCIENCE

Ginn, Mark Charles, *On the computational complexity of ordered subgraph recognition.*

Newman, Elsa Jann, *Some problems in geometric optics: Reflector synthesis and analysis.*

Pennington, Robin Amie, *A risk based model of the effect of cofactors on the spread of the acquired immunodeficiency syndrome.*

Georgia Institute of Technology (6)

MATHEMATICS

Bright, Theresa Ann, *New solutions to the Euler equations using Lie group analysis and high order numerical techniques.*

Burchard, Almut D., *Cases of equality in the Riesz rearrangement inequality.*

Hines, Gwendolen, *Dependence of the attractor on the delay for delay differential equations.*

Michel, Patricia L., *Eigenvalue gaps for self-adjoint operators.*

Oliva Filho, Sergio Muniz, *Reaction-diffusion systems on domains with thin channels.*

Sanders, Daniel Preston, *Linear algorithms for graphs of tree-width at most four.*

University of Georgia (4)

MATHEMATICS

Akbari, Gholamreza, *Riemann surfaces and toeplitz operators on multiply connected planar regions.*

Haglund, James Battern, *Compositions, rook placements, and permutations of vectors.*

STATISTICS

Doyle, Lisa, *Inference for a class of mixed linear models with spatial and temporal.*

Xiong, Momiao, *Mathematical theory of neural learning and its applications to statistics and molecular biology.*

HAWAII

University of Hawaii at Manoa (2)

MATHEMATICS

Mackey, John, *Recursive remedies.*

PUBLIC HEALTH SCIENCES

Chen, Xinguang, *Age and sex patterns of mortality in China: 1950–1990.*

IDAHO

Idaho State University (3)

MATHEMATICS

Fisher, Carol J.V., *Identifying hidden periodicities in discrete-domain data.*

Olson, Curtis J., *On dissapative matrices.*

Shi, Junning, *Convex sets in approximation theory.*

University of Idaho (1)

MATHEMATICS AND STATISTICS

Schaal, Daniel John, *On some zero-sum Rado type problems.*

ILLINOIS

Northern Illinois University (1)

MATHEMATICAL SCIENCES

Mohanty, Santosh Kumar, *Efficient algorithms for eigenspace decompositions of Toeplitz matrices.*

Northwestern University (6)

MATHEMATICS

Dorrington, Jenny E., *The v_2-periodic homotopy of a finite complex.*

Jones, Michael A., *Indefinitely repeated games and cooperation.*

Lee, Hyang Sook, *The stable and unstable types of classifying spaces and invariant theory.*

Madden, Amy Brett, *Rotation sets of the Mobius band and Klein bottle.*

Riesen, Joseph A., *The cohomology ring of a finite p-group.*

Rykken, Elyn K., *Markov partitions and the expanding factor for pseudo-Anosov homeomorphisms.*

Southern Illinois University at Carbondale (2)

MATHEMATICS

Dwiggins, David Paul, *Fixed point theory and periodic solutions for differential equations.*

Makay, Geza, *Boundedness and periodic solutions of functional differential equations.*

University of Chicago (9)

MATHEMATICS

Abramson, Michael Andrew, *Construction of affine P-adic buildings.*

Fan, Houhong, *Half DeRahm complexes and gauge theory of five dimensional cobordisms with Morse functions.*

Fan, Peter Tzehin, *Coarse I_p geometric invariants.*

Lasell, Brendon Michael, *Complex local systems and morphisms of varieties.*

Lum, Kai Hing, *On positive energy representations.*

Pugh, Mary Claire, *Dynamics of interfaces of incompressible fluids: The Hele-Shaw problem.*

Siegel, Stephen Frederick, *Cohomology and group extensions.*

Sridharan, Raja, *Non-vanishing sections of algebraic vector bundles.*

Witherspoon, Sarah Jane, *The representation ring of the quantum double of a finite group.*

University of Illinois, Chicago (13)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Caftori, Netiva, *Evaluation of computer software in relation to gender differentiation and educational effectiveness.*

Chen, Fudong, *Hankel and Toeplitz operators on Bergman spaces.*

Chen, Jie, *Classification of estimation algebras.*

Evangelista, Fe, *Equilibrium in bimatrix games and in repeated games with additive reward and transition.*

Hersonsky, Saar, *Universal constraints on discrete groups.*

Jia, Lixing, *Modified sequential unconstrained minimization technique.*

Kapoulas, George, *Computability and computational complexity over the p-adic numbers.*

Pohl, Gerhardt, *Contributions to the theory of D-optimal designs.*

Qin, Xiao, *Applications of persistent object managers to scientific computing.*

Syau, Yu-Ru, *On the trajectory structure of quadratic differentials on a torus.*

Yang, Bin, *Stability of abstract dynamical systems.*

Yang, Qi, *A parallel scheme using the divide and conquer method.*

Zhang, Weiguang, *Virtually balanced incomplete block designs.*

University of Illinois, Urbana-Champaign (20)

MATHEMATICS

Borek, Adam Richard, *Weak purity for Gorenstein rings.*

Callahan, Patrick James, *Spectral geometry of hyperbolic 3-manifold.*

Chung, Myung Sook, *Topics in extremal graph theory.*

Chung, Si-Kit, *On spaces related to weak L^p and their duals.*

Ford, Kevin Barry, *The representation of numbers as sums of unlike powers.*

Hammack, William, *Bounds on the size of strong subordinates of submartingales and subharmonic functions.*

Hulett, Heather, *Maximum Betti numbers for a given Hilbert function.*

Hummel, Tamara, *Effective versions of Ramsey's theorem.*

Kim, Jeong-Heon, *Normal families of integer translations.*

Kim, Seongtag, *Scalar curvature on noncompact complete Riemannian manifolds.*

Lauritzen, Niels, *Line bundles on projective homogeneous spaces.*

Levine, Lenore, *Cellular games.*

Lin, In-Jen, *Intersection representations of graphs and digraphs.*

Setya-Budhi, Wono Marcus, *Proper holomorphic mappings in several complex variables.*

Strus, Joseph, *Metric entrophies of various function spaces.*

Walter, Vonn Andrew, *A class of groups rich in finite quotients.*

Will, Todd Gerald, *Extremal results and algorithms for degree sequences of graphs.*

STATISTICS

Kundu, Subrata, *Some topics in sequential density estimation.*

Muyot, Maria Emerita Carmen Tiongson, *The use of rank tests in analysis of variance.*

Raghavan, Nandini, *Bayesian inference in nonparametric logistic regression.*

INDIANA

Indiana University (11)

MATHEMATICS

Askitas, Nikolaos, *On 2-spheres in 4-manifolds.*

Chen, Wenhan, *On the global behavior of the Navier-Stokes equations and related equations.*

Deng, Kai, *Partial and everywhere regularity for solutions to variational inequalities for vector-valued functions.*

Gu, Caixing, *Casual dilations and the theory of nonlinear robust control.*

Hartonas, Chrysafis, *Algebraic and Kripke semantics for substructural logics.*

Ko, Eung-Ll, *Subscalar and quasisubscalar operators.*

Kwon, Oh-Nam, *Iteration of holomorphic mapping in C^2 with a semi-attractive fixed point.*

Li, Luning, *Principal points and models in mixture density.*

Miller, Curtis, *Some theorems on p^*-mixing random fields.*

Naik, Swatee, *Symmetries of knots and Casson-Gordon invariants.*

Rowe, Stephen, *Simultaneous inference for jointly considered subjects of treatment effects.*

Purdue University (32)

INDUSTRIAL ENGINEERING

Hashem, Sherif, *Optimal linear combinations of neural networks.*

Pedrosa, Antonio Manuel de Carvalho, *Automatic batching in simulation output analysis.*

MATHEMATICS

Ansari, Shamim, *On the factorization of bounded linear operators and its applications.*

Antonelli, Fabio, *Backward forward stochastic differential equations.*

Chung, Young-Bok, *The classical kernel functions in potential theory.*

Fan, Chun-Tak, *Betti numbers for modules and primary components of three-generated ideals.*

Filali Adib, Khalid, *Integral representation formulas and applications.*

Guerrieri, Anna, *On the depth of certain graded rings associated to an ideal.*

Keskar, Pradipkumar, *The low degree unramified coverings of affine line in positive characteristic.*

Kim, Mi-Young, *Modeling the effect of screening in the propagation of an epidemic.*

Kim, Sang-Bae, *Parallel numerical methods for partial differential equations.*

Kodiyalam, Vijay, *Syzygies, multiplicities and birational algebra.*

Laï, Yu-Ling, *The analysis of iterative elliptic PDE solvers based on the cubic Hermite collocation discretization.*

Liu, Yingjie, *Numerical approaches to stochastic differential equations with boundary conditions.*

Moser, David Edwin, *The star chromatic and the harmonious chromatic numbers of a graph.*

Park, Eun-Jae, *On mixed finite element methods for non-linear second order elliptic problems.*

Premadasa, Anguru K.K., *Homotopy uniqueness of classifying spaces of compact Lie groups.*

Samaranayake, Geethamali Gunatilake, *Calculating the index of vector fields in 2 and 3 dimensional Euclidean space.*

Swanson, Steven, *On the factorization of multivariate polynomials over finite fields.*

Thomas, Anthony D., *The Bergman and Szegö kernels and mapping problems in complex analysis.*

Wang, Hsin-Ju, *Jacobian ideals, resolutions, and relation types of parameters.*

Wei, Yuting, *Stabilized finite element methods for miscible displacement in porous media.*

Xu, Yansong, *On the Jacobian conjecture and affine lines.*

Zhang, Bo, *On the Hydrodynamic model for semiconductor devices.*

Zhang, Minda, *Orthogonal polynomials in Sobolev spaces. Computational methods.*

STATISTICS

Chen, Ming-Hui, *Monte Carlo Markov chain sampling for Bayesian computation, with applications to constrained parameter spaces.*

De, Anindya, *A decision theoretic approach to the dimensionality problem in multivariate analysis of variance (MANOVA).*

He, Zhuoqiong, *Optimal designs for rational models.*

Nester, Darryl, *Random walk with partial reflection at extrema.*

Oh, Hyun Sook, *Contributions to fixed sample and sequential testing of point null hypotheses.*

Qiu, Chunfu, *Contributions to maximum penalized likelihood estimation.*

Wang, Zhongcheng, *Statistical applications of wavelet theory.*

University of Notre Dame (7)

MATHEMATICS

Cardim, Nancy, *Embeddings of open manifolds.*

Galemann, Birgit, *Tautness and linear representations of the classical compact groups.*

Intermont, Michele, *An equivariant van Kampen spectral sequence.*

Serrano, Herman, *Differential classification of simply connected spin manifolds of dimension six.*

Tent, Katrin, *Classifying totally categorical groups.*

Thurber, John, *Degrees of Boolean algebras.*

Yu, Jietai, *On the Jacobian conjecture and a product formula for minimal polynomials.*

IOWA

Iowa State University (13)

MATHEMATICS

Ray, Timothy, *Modeling of chemical surface reactions.*

Sriskandarajah, Kanapathypillai, *Global bifurcation of a sinusoidally forced Duffing's equation.*

Thur, Lois, *Subgradients of algebraically convex functions: A Galois connection relating convex sets and subgradients of convex functions.*

Uda, Yoshitake, *Fujita type global existence— global nonexistence theorems for weakly coupled systems of reaction-diffusion equations.*

Wang, Lih-Chyun, *The conditions for the uniform validity of three time scale approximations on a very long time interval.*

STATISTICS

Cannon, Ann Christina Russey, *Signal detection using categorical temporal data.*

Coffin, Marie Ann, *Some problems with nonsampling errors in receiver operating characteristic studies.*

Helterbrand, Jeffrey Donald, *Spatial dependence models and image analysis.*

Loughin, Thomas Michael, *Bootstrap applications in proportional hazards models.*

McDonald, David Giles, *Partitioning forecast errors in numerical weather prediction models.*

Olin, Bryan Douglas, *The design and mixture experiments in the presence of covariates.*

Takahashi, Hiroshi, *Computation of restricted maximum likelihood estimates of variance components.*

Zimmermann, Alan George, *Inference about the fixed and random effects in a mixed-effects linear model: An approximate Bayesian approach.*

University of Iowa (12)

APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES

Chang, Hsiao-Ying, *The analytic center method for entropy optimization and smooth convex programming problems.*

Tien, Hui-Chun, *Finite analytic method for two-dimensional flow with irregular boundaries.*

MATHEMATICS

Ershad-Langroodi, Majid, *Characterization of all semigroups S such that no S-automaton has proper essential right S-congruences.*

Ji, Jun, *Superlinear algorithms for LP and LCP problems with their complexity analysis.*

Johnson, Roberto, *Some Whittaker models for $GL_N(F)$.*

Salim, Ravi Ahmad, *Topics in equational logic.*

Valdes-Leon, Silvia, *Factorization in commutative rings with zero divisors and related topics.*

Wang, Yong, *Bounds for finitistic dimensions of rings.*

Yang, Yajun, *Multidimensional numerical integration and applications to boundary integral equations.*

STATISTICS

Bhattacharya, Bhaskar, *Estimation and hypothesis testing based on I-projections under linear inequality constrains.*

El Barmi, Hammou, *Hypothesis testing under convex constraints.*

Shin, Mi-Young, *Constant covariance estimation for stratified prospective and case-control logistic regression.*

KANSAS

Kansas State University (8)

MATHEMATICS

Abudiab, Mufid, *Dynamic analysis of AIDS infections: Reaction-diffusion modeling.*

El-Atrash, Mohammed, *Characterization of geometries of Lie type.*

Erjaee, Gholamhossein, *Bifurcation and stability analysis of micromixing effects in the chlorite-iodide reaction.*

Habil, Eissa, *Orthoalgebras and noncommutative measure theory.*

Katsevich, Alexander, *Mathematical results in signal and image processing.*

Liu, Yaping, *Positive solutions to general elliptic interacting systems.*

Lloyd, Michael R., *Some subspaces of continuous martingales M_p $(0 < p < 1)$ which have nontrivial duals.*

Miller, William David, *Quasi-Heyting algebras: A new class of lattices, and a foundation for non-classical model theory with possible computational applications.*

University of Kansas (6)

MATHEMATICS

Barth, Eric, *Numerical algorithms of constructive Hamiltonian systems.*

Baur, Lynne, *Initial chain algebras on pseudotrees.*

Eckertson, Fred, *Three Lindeloff questions: Projectively real compact spaces, linearly Lindelof spaces, and Michael spaces..*

Frei, Mark, *Parametric identification in continuous-time stochastic systems using time and space weighted least squares.*

Prabhu, Vrunda, *Embeddings of Hausdorff spaces.*

Shadabi, Lida, *Groupoid C^*-algebras, index theory and Toeplitz operators versus Wiener-Hopf operators.*

Wichita State University (2)

MATHEMATICS AND STATISTICS

Neculoiu, Octavian, *Steady vortex flows past obstacles.*

Sarhangi, Gholam Reza, *Stabilization, controllability, and robustness of some distributed parameter systems.*

KENTUCKY

University of Kentucky (2)

MATHEMATICS

Newcomb, John W., *The $U(n + 1)$ classical Bailey transform and $_{10}\phi_9$ transformation.*

Smith, Scott A., *The weakly confluent images of graphs.*

LOUISIANA

Louisiana State University (4)

MATHEMATICS

Curole, Mark, *Split Abelian extensions of C^* algebras.*

Martin, Heath, *Linkage by generically Gorenstein Cohen-Macaulay ideals.*

Myers, Leigh Ann, *Graphs in number theory.*

Park, Robert, *A Paley-Wiener theorem for nilpotent Lie groups of up to three steps.*

Tulane University (1)

MATHEMATICS

Chao, Temin, *Ultra-balanced Abelian groups.*

University of Southwestern Louisiana (5)

MATHEMATICS

Davis, Charles Bradley, *Satellite racks in knot theory.*

Du, Kaisheng, *Cluster problem in global optimization.*

Kong, Pui-Kan Catherine, *Quenching in reaction-diffusion problems.*

Xing, Zhaoyun, *Rigorous step control for continuation method.*

STATISTICS

Fisher, Diane, *Median control charts.*

MARYLAND

Johns Hopkins University (6)

BIOSTATISTICS

Magder, Lawrence S., *Smooth no parametric estimation of mixing distributions using mixtures of Gaussians.*

Yasui, Yutaka, *Regression analysis for spatial disease rates.*

MATHEMATICAL SCIENCES

Dobrow, Robert P., *Markov chain analysis of some self-organizing schemes for lists and trees.*

Ramana, Motakuri V., *An algorithmic analysis of multiquadratic and semidefinite programming problems.*

Wang, Wenyang, *Large derivations of U-empirical probability measures and statistical functionals.*

MATHEMATICS

Porod, Ursula, *Probability and Lie groups convergence of random walks on Lie groups.*

University of Maryland Baltimore County (3)

MATHEMATICS AND STATISTICS

Bhattacharyya, Amit, *Some aspects of modelling dependent-censored lifetime data in survival analysis.*

Sznajder, Roman, *Degree-theoretic analysis of the vertical and horizontal linear complementarity problems.*

Zapert, Radoslaw, *Uncertainty analysis of Greenhouse effect models.*

University of Maryland, College Park (19)

MATHEMATICS

Chao, I-Ming, *Algorithms and solutions to multi-level vehicle routing problems.*

Chernesky, Michael P., *Iterative solution of discrete convection diffusion problems.*

Cho, Minshik, *Positively curved Alexandrov space with large covering radius.*

Dunyak, James P., *Diffusions in regions with fine-grained boundaries.*

Grundstrum, Eric, *Learning activation rules rather than weights connectivist models.*

Guerin, Marianne James, *The regionally proximal relation and some generalizations in topological dynamics.*

Gun, Hediye, *Polyhedral structure and efficient algorithms for certain classes of the directed rural postmen problems.*

Kreminski, Richard M., *Spin conformal structures on graded manifolds.*

Madden, Kathleen, *The existence and consequences of exotic cocycles.*

Manduchi, Elisabetta, *Root numbers of fibers of elliptic surfaces.*

Martin, Georgia Doyle, *Cantor singletons, rank-faithful trees, and other topics in recursion theory.*

Miller, Joyce Lynn, *Algorithms for computing in subalgebras of polynomial algebras over a ring.*

Myers, Bruce T., *Local representation densities of non-unimodular quadratic forms.*

Pinsky, Paul Fredric, *Mathematical models of Hippocompal neurons and neural networks: Exploiting multiple time scales.*

Qiang, Li, *Delay effects on persistence and stability in some predator models.*

Rush, Maureen, *Non-linear dynamical analysis of extended Hodgkins and Huxley models of neural electrical activity.*

Saliani, Sandra, *Nonlinear wavelet packets.*

Whitman, Peter, *Confidence intervals and stochastic linear programming.*

Xu, Jian-Lun, *Nonparametric estimation of a distribution function for biased sampling models.*

MASSACHUSETTS

Boston University (11)

MATHEMATICS

Blundell, Solon Frederick, *A spherically symmetric model in celestial mechanics.*

Brent, Barry, *The initial segment of the Fourier series of a modular form with constant term.*

Cioczek-Georges, Renata Maria, *Conditional moments and regression for stable random variables.*

Griffith, John L., *Maximum lieklihood estimates for feed forward multi-layer neural networks.*

Kokoszka, Piotr, *Self-similar stable processes.*

Lo Faro, Thomas, *A period adding bifurcation in a pair of coupled neurons.*

Mabrouk, Sarah, *Filtering in numerical analysis.*

Massaro, Joseph, *Goodness-of-fit tests for the logistic distribution.*

Nadim, Farzan, *An inductive approach to the geometry of the discrete Fitzhugh-Nagumo equation.*

Stepanians, Miganush Nvart, *Goodness of fit techniques and robustness considerations for the multiple logistic regression model.*

Zhu, Ying, *A generalization of the Kodaira vanishing theorem and the Kodaira embedding.*

Brandeis University (9)

MATHEMATICS

Basu, Susanta, *On differential geometric techniques for solving nonlinear PED's.*

Du, Wei, *Representation theory of left generalized Nagayama algebras.*

Gasharov, Vesselin, *Theory and applications of symmetric functions.*

Johnson, Michael, *Higher secant varieties.*

Luo, Jiangang, *Uniserial modules over commutative Artin local rings.*

Pardue, Keith, *Nonstandard Borel-fixed ideals.*

Parker, Susan, *The combinatorics of functional composition and inversion.*

Ree, Sanwook, *Enumeration of lattice paths and P-partitions.*

Wu, Su-Ming, *The Kuranishi vector field of a connected sum of 3-manifolds.*

Harvard University (28)

APPLIED SCIENCES

Fry, David S., *Structural infinitesimal perturbation analysis of discrete event.*

Huang, Chiang-Sheng Derrick, *A bang or a whimper: Key issues and implications of alternative telecommunications.*

Li, Zhenyu, *Compaction algorithms for non-convex polygons and their applications.*

Razdan, Rahul, *PRISC: Programmable instruction set computers.*

Stokes, Ann W., *Geometric methods for the design of mechanisms.*

Tanzosh, John P., *Integral equation formulations of the linearized Navier Stokes equation.*

BIOSTATISTICS

Carter-Campbell, Shelly, *Proportional hazards models for repeated event failure time data with application to rota virus infection.*

Chang, Bei-Hung, *Methods for analyzing aggregate data in meta-analysis.*

Keaney, Karen, *Methods and applications of survival analysis for decision modeling.*

Legler, Julie, *Statistical methods for multiple binary outcomes: The analysis of birth defects data.*

Mahoney, Elizabeth, *Compartmental models for doubly censored failure time data with application to AIDS.*

Murray, Susan, *Nonparametric estimation and testing for survival data in the two sample censored data problem incorporating longitudinal covariates.*

Olson, Melvin Porter, *Contributions to statistical methodology for longitudinal data analysis.*

Pugh, Marian, *Inference in the Cox proportional hazards model with missing covariate data.*

Rossini, Anthony, *Regression models for interval censored data.*

Toledano, Alicia, *Generalized estimating equations for repeated ordinal categorical data, with application to diagnostic medicine.*

Wulfsohn, Michael, *Failure time processes and longitudinal data.*

Zackin, Robert, *Methods for estimation of the effect of antiretrovial therapy on the burden of infection with the human immunodeficiency virus.*

MATHEMATICS

Bryan, James A., *Sympletic geometry and the relative Donaldson invariants of the conjugate projective plan.*

Hagedorn, Tom, *Multiplicities in restricted representations of* $GL_n(\mathbb{F}_q), U_n(\mathbb{F}_{q^2})$, *and* $SO_n(\mathbb{F}_q)$.

Nguyen, Du, *Graded Lie algebra and conformal field theories: The genus 0 case.*

Pandharipande, Rahul, *A compactification over* $\overline{M}_q$ *of the universal moduli space of slope semistable vector bundles.*

Teleman, Constantine, *Lie algebra cohomology and the fusion rules.*

Twietmeyer, Eric Paul, *Real forms of quantum groups and Harish-Chandra modules.*

Wang, Lan, *Rational points and canonical heights on varieties with many elliptic fibrations.*

Yu, Jiu-Kang, *A-divisible modules, period maps, and quasi-canonical lifting.*

STATISTICS

D'Agostino, Ralph, *Estimating propensity scores when covariates have either ignorable or nonignorable missing valves.*

Liu, Chuanhai, *Statistical analysis using the multivariate t distribution.*

Massachusetts Institute of Technology (32)

MATHEMATICS

Ajitabh, Kaushal, *Modules over regular algebras and quantum planes.*

Anderson, Laura, *Topology of combinatorial differential manifolds.*

Arnon, Dan, *Generalized Dickson invariants.*

Babson, Eric Kendall, *A combinatorial flag space.*

Bachmat, Eitan, *On the Arakelov Chow group of arithmetic abelian schemes and other spaces with symmetries.*

Baddoura, Mohamed Jamil, *Integration in finite terms with elementary functions and dilogarithms.*

Blair, Alan, *Path integrals on ultrametric spaces.*

Chae, Hi-joon, *A cohomological interpretation of the scalar product on the elliptic class functions.*

Chislenko, Julia, *On geometric constructions of the universal enveloping algebra* $U(Sl_n)$.

Esteves, Eduardo de Sequeira, *The presentation functor and Weierstrass theory for families of local complete intersection curves.*

Gillman, David, *Hidden Markov chains: Convergence rates and the complexity of inference.*

Gunnells, Paul Edward, *The topology of Hecke correspondences.*

Hassell, Andrew, *Analytic surgery and analytic torsion.*

Hetyei, Gábor, *Simplicial and cubical complexes: Analogies and differences.*

Joshi, Mark S., *A precise calculus of paired lagrangian distributions.*

Klain, Daniel A., *Star measures and dual mixed volumes.*

Kuruc, Alvin, *Probability measure estimation in positron emission tomography using loss functions based on Sobolev norms.*

Kwon, Oh Kang, *Irreducible representations of braid groups via quantized enveloping algebras.*

Mahoney, Daniel J., *On wave interactions: Explosive resonant triads and critical layers.*

Milewski, Paul A., *Nonlinear gravity waves in rotational flows.*

Norton, Carolyn H., *Problems in discrete optimization.*

Port, Daniel Noah, *Polynomial maps with applications to combinatorics and probability theory.*

Ramero, Lorenzo, *An l-adic Fourier transform over local fields.*

Sepanski, Mark R., $L_2(q)$ *and the rank two Lie groups: Their construction, geometry and character formulas.*

Tay, Kian Boon, *Nilpotent orbits and multiplicity-free representations.*

Touma, Jihad R., *The chaotic obliquity of Mars.*

Turner, James M., *Relations in the homotopy of simplicial Abelian Hopf algebras.*

Yang, An, *Vector valued Poisson transforms on Riemannian symmetric spaces.*

Yang, Jianke, *Some nonlinear equations arising in the theory of water waves.*

OPERATIONS RESEARCH

Huang, Yen-chin, *Empirical distribution function statistics, speed of convergence, and p-variation.*

Klaassen, Pieter, *Stochastic programming models for interest-rate risk management.*

Srivatsan, Narayanan, *Synthesis of optimal policies for stochastic manufacturing systems.*

Northeastern University (3)

MATHEMATICS

Mann, David, *The tenacity of trees.*

Nostrand, Barbara, *Chiral honeycombs.*

Walkins, Mary, *The maximal module of hereditary Artin algebras of finite representation type.*

University of Massachusetts, Amherst (4)

MATHEMATICS AND STATISTICS

Jordan, Richard, *Statistical equilibria and coherent structures in two-dimensional magnetohydrodynamic turbulence.*

Rhoades, Sandra, *A character-theoretic approach to Artin's conjecture.*

Schmitt, Nicholas, *Minimal surfaces with embedded planar ends.*

Swain, Gordon, *Generalized polynomial and rational identities.*

MICHIGAN

Michigan State University (13)

MATHEMATICS

Bahi, Said, *Least distance algorithms for linear systems.*

Giraldo, Jose Huberto, *Lattice path proof of some Jacobi-Trudi type formulae.*

Khoury, Suheil, *Biorthogonal series solution of Stokes flow problems.*

Poteete-Young, C. Lanette, *A matching technique for solving Stokes flow problems.*

Readdy, Margaret A., *Extremal problems for the Möbius function.*

Sellami, Radhouane, *Real toric manifolds.*

Spencer, Joseph J., *Probabilistic threshold for collapsibility in random graphs.*

STATISTICS AND PROBABILITY

Bae, Jong Sig, *Convergence of stochastic processes indexed by parameters.*

Mukherjee, Kanchan, *Weak convergence of weighted empirical processes under long range dependence with applications to robust estimation in linear models.*

Podgorski, Krzysztof, *Resampling methods for linear models.*

Szlenk, Piotr, *Stability of solutions of stochastic differential equations of diffusion type.*

Wang, Zhiming, *Estimation in interval censorship models.*

Zhu, Zhiwei, *Strong consistency and Bahadur type expansions of a class of minimum distance estimators in linear regression.*

University of Michigan, Ann Arbor (2)

BIOSTATISTICS

Lin, Chen-Sheng, *A comparison of categorical models for tight-censored data.*

Weaver, Royal John, *Analysis of rhythmic biological data: The mixed effects cosinor model.*

University of Michigan (20)

MATHEMATICS

Armon, Mary Vlastnik, *Sums of quadratic characters.*

Chang, Shou-Te, *The asymptotic behavior of Hilbert-Kunz functions and their generalizations.*

Diller, Jeffrey A., *Levi-flat surfaces with circular cross-sections and bounded analytic functions.*

Elnitsky, Serge, *Rhombic tilings of polygons and classes of reduced words in Coxeter groups.*

Fischer, Steven D., *Signed poset homology and q-analog Mobius functions.*

Gomez, Rodrigo P., *Geodesic flow on Hilbert flow on Hilbert Grassmannians.*

Hozo, Iztok, *Homology of the Lie algebra corresponding to a poset.*

Kausch, David J., *Rings of differential operators over projective rational curves.*

Pambuccian, Victor, *The axiomatics of Euclidean geometry.*

Pfau, Matthias, *The reduction of connected Shimura varieties at primes of good reduction.*

Santos, David A., *Sets of monotonicity for the Riemann zeta-function.*

Shy, Haw-Yaw, *Cancelling the S_1's when $S_1 \times M_3$ is diffeomorphic to $S_1 \times N_3$.*

Talayco, Daniel E., *Applications of homological algebra to questions in set theory: Gaps and trees.*

Velez, Juan D., *Openness of the F-rational locus, smooth base change and Koh's conjecture.*

Vukotic, Dragan, *Multipliers and extremal problems in Bergman spaces.*

Wafa, Wei, *Weil numbers and generating large field extensions.*

Wagenmaker, Timothy R., *Analytic solutions and resonant solutions of hyperbolic partial differential equations.*

STATISTICS

Coleman, Daniel, *A sequential approach to fixed-width, asymptotic confidence intervals for ratios of parameters in linear regression.*

Hydorn, Debra, *On estimating the eigenvalues of a covariance matrix.*

Jeong, Yousceek, *On the asymptotic optimality of some decision problems in 2^k factorial experiment.*

Wayne State University (3)

MATHEMATICS

Liu, Xi-Suo, *On the change point estimations and detections.*

Sadek, Mohamad, *Radial limits in star invariant subspaces in multiply connected domains.*

Talagalage, Rohanna, *Some contributions to imperical Bayes message in statistical decision theory.*

Western Michigan University (1)

MATHEMATICS AND STATISTICS

Keller, Brian, *Symbol sense and its development in two computer algebra system environments.*

MINNESOTA

University of Minnesota, Minneapolis (24)

BIOSTATISTICS

Cowles, Mary Katherine, *Practical issues in Gibbs sampler implementation with application to Bayesian hierarchical modeling of clinical trial data.*

MATHEMATICS

Bernard, Guy, *An inhomogeneous equation in entire space.*

Bilge, Ayse, *Construction of recursion operators for scalar evolution equations.*

Cheng, Lu, *Eisenstein series and rationality of automorphic L-functions on unitary groups over function fields.*

Fernandes, Rui Antonio, *Completely integrable bi-Hamiltonian systems.*

GE, Xiaolin, *Computability in group representations.*

Galovich, Jennifer, *Generalized Denert statistics.*

Hatfield, Gary, *Conservation laws in anisotropic elasticity.*

Hoffman, John, *Invariance principles, return times, and reconstruction theorems for random walks in random environments.*

Ou, Biao, *Some topics in mathematical theory of liquid crystal.*

Penazzi, Daniel Eduardo, *Groups and relations in topological dynamics.*

Scotto, Roberto Anibal, *Weak type estimates for singular integral operators associated with the Ornstein-Ohlenbeck process.*

Spencer, Raymond, *Series solutions and spectral properties of boundary integral equations.*

Tien, Fang-Cheng, *Recursion formulas of central configurations.*

Van Buskirk, Douglas, *Systems of disjoint representatives of families of measurable sets.*

STATISTICS

Chen, Li-Shya, *Sequential regulation.*

Clyde, Merlise, *Bayesian optimal designs for approximate normality.*

Gillingham, Kristen, *Bayesian hierarchical models for metaanalysis of dichotomous response studies.*

Montepiedra, Ma Grace, *Optimal design with finite model validity range.*

Naylor, Julie, *Optimal design for accelerated life tests with restricted resources.*

Nilakantan, Lakshmi, *Continuous time stochastic games.*

Rao, Shailaja, *Analysis of sparse logit models.*

Thorpe, Daniel, *Small same properties of goodness-of-fit statistics from categorical data.*

Xiu, Liang, *Goodness-of-fit tests for survival models.*

MISSISSIPPI

Mississippi State University (4)

MATHEMATICS AND STATISTICS

Elnagar, Gamal N. H., *Legendre and pseudospectral Legendre approaches for solving optimal control problems.*

Khamayseh, Ahmed K., *Elliptic surface grid generation on analytically defined geometries.*

Miller, Vivien Glass, *Restrictions and quotients of decomposable operators and special inclusions on Banach spaces.*

Vishwanathan, Anuradha, *Solvability of classes of nonlinear boundary value problems.*

MISSOURI

University of Missouri, Columbia (3)

MATHEMATICS

Randrianantoanina, Beata, *Isometries of function spaces.*

Randrianantoanina, Narcisse, *On stability of some properties in Banach spaces.*

STATISTICS

Betne, Prabha, *On optimal design for nonlinear models.*

University of Missouri-Rolla (1)

MATHEMATICS AND STATISTICS

Saliga, Linda, *Fixed point theory for non-self maps.*

Washington University (9)

MATHEMATICS

Morpurgo, Carlo, *Pertubation theorems for traces of heat kernels with applications to the 2-sphere.*

Stapel, John F., *Interpolation between compatible Hilbert space couples.*

Vogl, Charles K., *Cubic homogeneous maps and the Jacobian conjecture in dimension four.*

Yu, Jiye, *Geometric analysis on weakly pseudoconvex domains.*

SYSTEMS SCIENCE AND MATHEMATICS

Lei, Ming, *Vision based robot tracking and manipulation.*

Lin, Wei, *Synthesis of discrete time nonlinear systems.*

Marth, Gabor Tamas, *Sensor referenced event based control for stable phase transitions to constrained manipulator motion.*

Xi, Ning, *Event-based motion planning and control for robotic systems.*

Zhu, Yimin, *Parallel implementations of the p-version of the finite element method.*

MONTANA

University of Montana (1)

MATHEMATICAL SCIENCES

Apaloo, Joseph, *A mathematical theory of evolution of ecological communities.*

NEBRASKA

University of Nebraska-Lincoln (3)

MATHEMATICS AND STATISTICS

Fosnaugh, Timothy A., *Optimization over and connectedness of the efficient set(s).*

Lim, Jae-Hak, *Stochastic comparisons of maintenance policies and Bayesian imperfect repair model.*

Riggs, Troy Darin, *A Feynman-Kac formula with a Lebesgue-Stieltjes measure for the one-dimensional Dirac equation, associated Dyson series, and Feynman's operational calculus.*

NEW HAMPSHIRE

Dartmouth College (4)

MATHEMATICS

Glenn, Michael, *Orders in quadratic and cyclotomic fields.*

Kaliszewski, Steven, *Morita equivalence methods for twisted C^*-dynamical systems.*

Leathrum, Thomas, *The structure of certain almost disjoint families.*

Poage, Matthew, *Recursion theory in fragments of arithmetic.*

University of New Hampshire (3)

MATHEMATICS

Ding, Hui-ru, *Approximate equivalence in von Neumann algebras.*

Ionascu, Ileana, *Stability properties for the constant of hyperreflexivity.*

Kaonga, Llolsten, *Decomposable functions and universal C^*-algebras.*

NEW JERSEY

Princeton University (11)

MATHEMATICS

Bournaveas, Nikos, *Local existence for the Maxwell-Dirac equations in three space dimensions.*

Bridgeman, Martin J., *Volume increase under Dehn drilling operations.*

Erdos, Laszlo, *Magnetic Lieb-Thirring inequalities and estimates on stochastic oscillatory integrals.*

Farb, Benson S., *Relatively hyperbolic groups with applications to negatively curved manifolds.*

Ikeda, Kazim, *Linear equivalence of Eisenstein series.*

Li, Yanguang, *Chaotic dynamics in partial differential equations.*

Liu, Chien-Hao, *Quantum topological fluctuations and deformation of geometries and topologies under ε approximations.*

Mayer, Andrew J., *A tiling property of the Minkowski fundamental domain.*

Navas, Luis, *Coates-Wiles homomorphisms and the arithmetic of an elliptic curve with complex multiplication: Behavior at supersingular primes.*

Ozsvath, Peter S., *On blowup formulas for SU(2) Donaldson polynomials.*

Wilson, Jennifer, *Functions of the Laplacian with Dirichlet boundary condition.*

Rutgers University (14)

MATHEMATICS

Albertini, Francesca, *Controllability of discrete-time nonlinear systems and some related topics.*

Hochberg, Robert A., *Discrepancy and bandwidth.*

Jurisich, Elizabeth, *Generalized Kac-Moody algebras and their relation to free Lie algebras.*

Kim, Jeong-Han, *Non-combinatorial approaches to two combinatorial problems.*

Li, Haisheng, *Representation theory and tensor product theory for vertex operator algebras.*

Lin, Guotian, *The renormalization group and large-time behavior of solutions of nonlinear parabolic partial differential equations.*

Stipsicz, Andras, *Computation of Donaldson invariants by cut and paste techniques.*

Szabo, Zolton, *On the smooth structures of elliptic surfaces and irreducible four-manifolds.*

Xie, Chuanfu, *On standard modules and vertex operator algebras.*

Xiong, Junjie, *The remainder form and cord-slope form in global optimization with interval methods.*

Yang, Yudi, *Global stabilization of linear systems with bonded feedback.*

Zani, Sergio Luis, *Norm inequalities and boundary estimates for a class of positive operators and fractional maximal functions on homogeneous spaces.*

STATISTICS

Lin, Yaxian, *On one sample and multiple sample goodness of fit and their applications.*

Sheng, Ke-Ning, *Pattern matching between two non-aligned random sequences.*

NEW MEXICO

New Mexico State University (3)

MATHEMATICAL SCIENCES

Hussien, Gamal, *Baer near-rings and near rings with Boolean orthogonalities.*

Wang, Xiao-Min, *Asymptotic validity of the bootstrap in non-regular models.*

Woodburn, Cynthia, *An algorithm for Suslin's stability theorem.*

University of New Mexico (6)

MATHEMATICS AND STATISTICS

Bergeron, Keith, *Evolution of two-dimensional circular shear layers.*

Breslin, Frederick C., *Estimating the polyserial correlation coefficient.*

Farhat, Abdulrahim, *Stability analysis of finite difference schemes.*

Hernandez-Garcia, Jose Gerardo, *On hyper f-structures.*

Lee, Jea-young, *Identifiability and estimation in linear and non-linear compartment models with application.*

Mudjiandoko, *Controlled selection in 2-d stratification: Hungarian sampling scheme.*

NEW YORK

CUNY, Graduate Center (1)

MATHEMATICS

Vulis, Marina, *A computational study of the factor groups of the lower central series of a certain free product.*

Clarkson University (1)

MATHEMATICS AND COMPUTER SCIENCE

Saleh, Anwar, *Self-adaptive multilevel methods for fluid flow problems.*

Columbia University (9)

MATHEMATICS

Chen, Zhonghe, π_1-*train tracks, algebraic linearity theorem and classification of surface diffeomorphisms.*

Leness, Thomas, *Blow-up formulae for SO(3)-Donaldson polynomials.*

Lobenberg, Michel, *Integration in infinite dimensional spaces.*

Papasoglu, Panagiotis, *Geometric methods in group theory.*

Robb, Arthur, *The topology of branch curves of complete intersections.*

Xia, Qi Frank, *On moduli spaces of rank two vector bundles over elliptic surfaces.*

Zhang, Binlong, *Mellin transforms of Whitaker functions and Kloosterman zeta functions over function fields.*

STATISTICS

Chen, Kani, *The bootstrap accuracy: A general mapping approach and the Edgeworth expansion with censored data.*

Huang, You Ping, *Some problems in nonparametric estimation based on incomplete data.*

Cornell University (19)

APPLIED MATHEMATICS

Du, Yong Yao, *Chaotic behavior in a coupled oscillator.*

Duan, Jinqiao, *Dynamics of a generalized Ginzburg-Landau equation.*

Henry, Gregory Mark, *Improving data reuse in eigenvalue related computations.*

Malo, Salvador, *Rigorous computer verification of planar vector field structure.*

Myers, Mark Randolph, *Computation of eigenvalue resonance in numerical bifurcation problems.*

Raman, T. V., *Audio system for technical readings.*

Wicklin, Fredrick, J., *Dynamics near resonance in multi-frequency systems.*

Worfolk, Patrick Allen, *Instant chaos: An equivariant equation.*

BIOMETRICS

Hsu Schmitz, Shu-Fang, *Some theories, estimation methods and applications of marriage functions and two-sex mixing functions in demography and epidemiology.*

MATHEMATICS

Dengler, Heike, *Poisson approximations to continuous security market models.*

Lee, Sungchul, *A note on greedy lattice animals.*

Ma, Lawrance KWanHo, *Quasisymmetric conjugacy of degree N critical circle map.*

Machiavelo, Antonio, *On semi-linear representations over local fields.*

Parker, John, *Band-limited wavelets with rotational symmetry.*

Sheu, Yuan-Chung, *On path properties of superdiffusions.*

Zhao, Hong, *Frequentist and Bayesian aspects of some nonparametric estimation problems.*

Zhou, Gengqiang, *Finiteness and compactness for the family of isospectral Riemannian manifolds.*

Zuli, Louis, *A matrix for computing the Jones polynomial of a knot.*

STATISTICS

Lando, David, *Three essays on contingent claims pricing.*

New York University, Courant Institute (14)

MATHEMATICS

Apelian, Christopher, *Anomalous diffusion and percolation results for transport in a two-dimensional random field.*

Cabre, Xavier, *Estimates for solutions of elliptic and parabolic equations.*

Cardenas, Juan, *Local and global behavior of solutions to the wave equation on noncompact manifolds.*

Cheng, Hsuanjen, *Iterative solution of elliptic finite element problems on partially refined meshes and the effect of using inexact solvers.*

Garza-Hume, Clara, *P-harmonic maps and liquid crystals.*

Hayes, Brian, *I. Stability of solutions to a distabilized Hopf equations. II. Studies of the Kac-Van Moerbeke lattice.*

Kriecherbauer, Thomas, *Forced lattice vibrations.*

Lu, Jiangbo, *Extremal microstructures for two isotropic phases with distinct stress-free strains in two space dimensions.*

Mann, Jordan, *Enhanced signal processing techniques for spotlight mode synthetic aperture radar and other inverse reconstruction problems.*

Padilla-Longaria, Pablo, *On some nonlinear elliptic problems.*

Petrescu, Dirvy, *Results on hyperbolic partial differential equations on curved and conformally flat space time.*

Tehrani, Hossein, *On some semi-linear elliptic boundary value problems.*

Tonegawa, Yoshihiro, *Complete constant mean curvature surfaces in hyperbolic space.*

Xu, Lin, *Diffusive scaling limit for mean zero asymmetric simple exclusion processes.*

Rensselaer Polytechnic Institute (10)

MATHEMATICAL SCIENCES

Cederberg, Robert, *Predictability to acoustic propagation in shallow water using parabolic approximation models.*

Cheng, Zhaoyang, *A least squares approach to interior point methods with an application to geometric programming.*

Coyle, Joseph M., *An HR-refinement finite element method for systems of parabolic partial differential equations with stability analyses for mesh movement.*

Cramer, Alan C., *Convex interpolation of convex contours in parallel planes.*

Gore, David A., *Inverse problems in semiconductor devices.*

Haddad, Carol, *Algorithms involving alternating projections onto the nonconvex sets occurring in linear complementarity problems.*

Kropinski, Mary Catherine, *A study of optimal critical airfoils.*

Mohrmann, Kelley B., *Algorithms for hard nonlinear programs.*

Scott, Adrian C. H., *Locating binding sites for cyclic-amp receptor proteins on unaligned DNA fragments using nonlinear programming.*

Shy, Hongyuh L., *An algorithm for solving unconstrained minimization problems on multiprocessor computers.*

SUNY at Albany (6)

MATHEMATICS AND STATISTICS

Addepalli, Venu, *Shift automorphisms of free groups.*

Clifford, Andrew, *Low genus surfaces and combinatorial group theory.*

Fleron, Julian, *Hölder estimates for the solution of the Cauchy-Riemann equations near weakly pseudoconvex boundaries.*

Hotchkiss, Philip, *Extending techniques in hyperbolic group theory to certain non-positively curved groups.*

Moss, David, *Kummer theory of formal groups.*

Perera, Kanthi, *Parameter estimation for a sine wave whose frequency changes linearly with time and which is discretely sampled and pertubed by randon noise.*

SUNY at Binghamton (1)

MATHEMATICAL SCIENCES

Weiner, Michael D., *Bosonic construction of vertex operator para-algebras from symplectic affine Kac-Moody algebras.*

SUNY at Buffalo (4)

MATHEMATICS

Li, Huiping, *BMD and Hankel operators on the Bergman space.*

Plewe, Till, *Locale products of spaces.*

Wang, Shengli, *Equivalence of Lyapunov-Schmidt and center manifold normal form methods for Hopf bifurcations.*

STATISTICS

James, Lancelot F., *The bootstrap, Bayesian bootstrap and random weighting methods for censored data models.*

SUNY at Stony Brook (16)

APPLIED MATHEMATICS AND STATISTICS

Chang, KouKang, *An improved mass conserving front tracking scheme.*

Li, Linxiong, *Renewal theory: Limit theorems for renewal processes in a random environment and nonparametric confidence intervals for the renewal function.*

Mirkovic, Dragan, *A domain decomposition approach to mixed finite element solution of elliptic problems.*

Rosenthal, Steven, *Mathematical methods for realistic neuron modeling.*

Srivastava-Sinha, Charu, *Optimal policies in manufacturing and queuing systems.*

Sundaram, Gopalakrishnan, *Combinatorial algorithms for computational biology.*

Tseng, Li-Jung, *Small-sample properties of the maximum likelihood estimates of the parameters for two-component normal mixtures.*

Zhong, Xiang, *Parallel multigrid algorithm for inverse problems of general 3D elastic wave equations.*

MATHEMATICS

Ares-Gastest, Pablo, *On Teichmüller spaces of b-groups with torsion.*

Gater, Pawel, *The intersection Dold-Thom theorem.*

Harris, Adam, *Structure jumping in holomorphic families.*

Kraseski, Steven, *Homology of generalized piecewise differentiable currents on a combinatorial manifold.*

Lamontagne, François, *Critical metrics for the L^2-norm of the curvature tensor.*

Miegom, Peter, *K-theory index of Dirac extensions with periodic multipliers on a universal cover.*

Poirier, Alfredo, *On post critically finite polynomials.*

Woodland, Janet, *Transition functions for monopole-free Abelian lattice gauge fields on the torus.*

Syracuse University (5)

MATHEMATICS

Bernhofen, Laura Trasher, *Procedures for selecting the best experimental treatment in comparison to a control.*

Dawood, Qazi M., *First-order elliptic operators on the complex plane.*

Pierce, Pamela B., *On the preservation of certain properties of functions under composition.*

Scott, Chad, *L^p theory of differential forms on manifolds.*

Xing, Hualing, *Interpolating polynomials: Convergence, approximation and the magnitute.*

University of Rochester (10)

MATHEMATICS

Ford, Frederick J., *On the cohomology of small categories.*

Gonzalez, Jesus Espino Barros, *Odd primary bo-resolutions and the classification of the stable homotopy types of stunted lens spaces.*

Levi, Ran, *On finite groups and homotopy theory.*

Liu, Changmei, *Sharp estimates for solutions of partial differential equations and uniqueness for a general class of inverse problems.*

Morrow, Margaret Leonie, *Algebraic Alexander-Spanier cohomology and sectional representation.*

Ren, Songjie, *Eisenstein series of negative weights and Henri Cohen's Eisenstein series for Hilbert modular groups.*

Wen, Yingzhong, *Curve straightening in Euclidean space.*

STATISTICS

Cui, Lu, *Semiparametric inference for modulated renewal processes.*

Sinha, Debajyoti, *Semiparametric Bayesian analysis of single and multiple event time data.*

Srivastava, Deo Kumar, *Robust test procedures for multivariate data.*

NORTH CAROLINA

Duke University (3)

MATHEMATICS

Peterson, Christopher Scott, *Applications of liaison theory to schemes supported on lines, growth of the deficiency module, and low rank vector bundles.*

Puckette, Emily Elizabeth, *Critical exponents for intersections of random walks in dimensions between 1 and 2.*

Suters, William Henry III, *A numerical study of the instability of vortex rings with swirl.*

North Carolina State University, Raleigh (13)

MATHEMATICS

Benzi, Michele, *A direct row-projection method for sparse linear systems.*

Bos, Margaret, *Embedding of affine Lie algebra representations and principal characters.*

Carscadden, Rob, *The orbit structure of finite monoids.*

Choi, Sang-Il, *Analysis of limiting empirical spectral distribution of large dimensional random matrices.*

Gibson, Gregory, *Extension problems in Lie algebras.*

Gilmore, Paul, *An algorithm for optimizing functions with multiple minima.*

Kim, Hok, *Solutions of pertubed nonlinear differential equations.*

Lu, Xin, *Nonlinear parabolic boundary-value problems with time delays.*

Lu, Yiyuan, *Centralizing derivations of higher order on prime rings.*

Moore, Edward, *Constraint preserving multistep integrators for differential algebraic equations.*

Oppegaard, Dean, *Generalizations of continuity, symmetry and symmetric continuity.*

Renfro, Dave, *Some supertypical nowhere differentiability results for $C[0, 1]$.*

Shutt, John R., *Heteroclinic and homoclinic orbits in a class of planar competition models.*

University of North Carolina, Chapel Hill (5)

MATHEMATICS

Kasturiarachi, Aloysius Bathi, *The small dispersion limit of generalized Korteweg-De Vries equation with Riemann initial data.*

McNulty, Jennifer, *Affine hyperplane arrangements and oriented matroids.*

Park, Taehoon, *Computations of nonequilibrium hypersonic inviscid flow around bodies.*

Sladeczek, Hans-Juergen, *Numerical and function theoretic problems in thin region.*

OPERATIONS RESEARCH

Narayanan, Anupama, *Stochastic fluid flow models for polling systems and multiclass queues.*

OHIO

Bowling Green State University (4)

MATHEMATICS AND STATISTICS

Dong, Yi, *The partial orders of certain automorphism groups.*

Gunhouse, Steven V., *Highly transitive representations of free products on the natural numbers.*

Okada, Taihei, *Constants for lower bounds for linear forms in the logarithms of algebraic numbers.*

Song, Danhong, *Multivariate L_p-norm distributions.*

Case Western Reserve University (8)

MATHEMATICS

Hu, Yiming, *Topics on stochastic Burgers' equation.*

OPERATIONS RESEARCH

Aka, Mian, *Joint inventory/replacement policies.*

Bouzina, Khalid Ibn El Walid, *On interval scheduling problems: A contribution.*

Chang, Chia-Sheng, *A period vehicle routing problem with time windows and backhauls.*

Chu, Tyzz-Shong, *Bayes reliability growth models with delayed fixes for the development testing program of a complex system.*

Fleischer, Mark Alan, *Assessing the performance of the simulated annealing algorithm using information theory.*

Liou, Ching-Pin, *The lattice approaches for pricing path-dependent mortgage-related products.*

Xu, Xiaomei, *Queueing systems in competitive settings.*

Kent State University (3)

MATHEMATICS AND COMPUTER SCIENCE

Abraham, Paul, *Some limit theorems for sequences of vector measures.*

Boudhraa, Zinnedine, *Blowing up in the Grassmann manifold.*

Weston, Anthony, *Some nonlinear problems in functional analysis.*

Ohio State University (21)

MATHEMATICS

Beleznay, Ferenc, *The complexity of the collection of measure distal transformations.*

Daquila, Richard, *Strongly annular solutions of Mahler's functional equation.*

Dharmatilake, Jack, *Binary matroids of branch-width 3.*

Gonzalez, Cristian, *On the "2-part" of the Birch and Swinnerton-Dyer conjecture for elliptic curves with complex multiplication.*

Griffith, Elder G., Jr., *Galois module structure of the integers in wildly ramified extensions.*

Lee, Euiwoo, *Uniqueness results for bursting solutions in a model of excitable membranes.*

Leou, Ying-Tyng Tony, *Upper and lower bounds for the cut elimination theorem.*

Li, Guodong, *Convergence problems arising from harmonic analysis and ergodic theory.*

McClure, Mark, *Fractal measures on infinite dimensional sets.*

Ouyang, Mingqing, *The eta-invariant of geometric 3-manifolds.*

Schwartz, Peter, *A cocycle theorem with an application to Rosenthal sets.*

Wu, Xiaohong, *Difference sets and their multipliers.*

Yang, Tzu-Yi, *On Hamilton cycles in Cayley graphs.*

Zhu, Tianbo, *Combinatorial designs and orthoganal arrays; some constructions and inequalities.*

STATISTICS

George, Robert Emerson, *Role of hierarchical priors in robust Bayesian inference.*

Kao, Lei-Jane, *Designs for drug combination experiments.*

McMillan, Nancy, *Computational methods for spatial statistics and image data.*

Naber, Steven, *Nonlinear least-squares and universal-Kriging estimation of source and ground water parameters for several types of plumes caused by instantaneous contamination releases.*

Rumsey, Deborah Jean, *Nonresponse models for social network stochastic processes.*

Shi, Minggao, *Multivariate analysis of variance and robust estimation of covariance structures when data are curves.*

Yamashita, Daryl T., *Using multiple imputation in Dunnett's multiple comparison procedure for the one-way repeated measures model.*

Ohio University (1)

MATHEMATICS

Wang, Gengsheng, *Optimal control problems of some parabolic differential equations.*

University of Toledo (1)

MATHEMATICS

Umadhar, Patnaik M., *Volume constrained Douglas problem and the stability of liquid bridges between two coaxial tubes.*

OKLAHOMA

Oklahoma State University (3)

MATHEMATICS

Matthews, Charles, *Boundaries of low-dimension Teichmüller spaces of Riemann surfaces.*

Waggoner, Martha, *Intersection numbers: A development of formulae for degree and genus relevant to computer aided geometric design.*

STATISTICS

Liranso, Tesfaye, *Two stage estimation of the quantiles of the logit model.*

University of Oklahoma (2)

MATHEMATICS

Hohmann, Curt, *Formulation and validation of an affine frame model.*

Zhon, Zing, *Optimal control of fluid equations with buoyancy.*

OREGON

Oregon State University (9)

MATHEMATICS

Boersma, Stuart F., *Parametric manifolds.*

Treuden, Mark R., *Collision probabilities of convex polygons in spherical two-space.*

White, Peter W., *The Davey-Stewartson equations: A numerical study.*

STATISTICS

Li, Yulan, *Confidence intervals and tests for variance-component ratios in mixed linear models.*

Liu, Qing, *Laplace approximations to likelihood functions for generalized linear mixed models.*

McCracken, Marti, *Factors affecting bird counts and their influence on density estimates.*

Pennello, Gene, *Multiple comparisons for the balanced two-way array: An approach Bayes rule (k-ratio) approach.*

Qadir, Mohammad Fazli, *Using percentile regression for estimating the maximum species richness.*

VanLeeuwan, Dawn, *Completeness and sufficiency under normality in mixed model designs.*

University of Oregon (5)

MATHEMATICS

D'Ambrosia, Barbara, *Square-free rings.*

Duvuru, Srinath, *Rings of differential operators on affine curves over a field of characteristic p.*

Gayle, Richard, *On existence and unicity in nonlinear L^1 approximation.*

Hanes, Lorna, *Walsh Fourier series on the hypergroup deformation of the dyadic group.*

Yang, Nanping, *Nonlinear segmented L_p approximations.*

PENNSYLVANIA

Bryn Mawr College (1)

MATHEMATICS

Cohen, Regina Buckley, *Chacon $\mathbb{Z}^2$-action and proof of two-fold self-joining.*

Carnegie Mellon University (6)

MATHEMATICS

Barroso, Ana Cristina, *Variational methods for phase transitions.*

Burkett, Daniel Andrew, *Numerical methods for viscoelasticity.*

Ensley, Douglas Edward, *Measures on aleph-0 categorical structures.*

Molloy, Michael Sean O'Brien, *Random graphs with a fixed degree sequence.*

Pugachevsky, Dmitry, *A stochastic control problem for nematic liquid crystals with variable degree of orientation.*

Vušković, Kristina, *Holes in bipartite graphs.*

Drexel University (1)

MATHEMATICS AND COMPUTER SCIENCE

Sleeman, Candace Kim, *A methodological study of a nonlinear stochastic model of the AIDS epidemic in Philadelphia.*

Lehigh University (4)

MATHEMATICS

Aikey, Phillip, *Sacks reals with vanishing limit points.*

Haines, Matthew J., *Ranks of primitive degenerate CM-types.*

Kocayusufoglu, Ismail, *Volume minimizing codimension-1 foliations.*

Redmond, Charles, *A boundary posted graph and Euclidean matching algorithms.*

Pennsylvania State University (6)

MATHEMATICS

Frisch, Sophie, *Integer-valued and congruence-preserving polynomials on Krull-rings.*

Lassowsky, Oksana, *Semitopological monoids on certain one-dimensional continua.*

Liu, Xiaobo, *Interior error estimates for some nonconforming and mixed finite element methods.*

Morgan, Ilene, *Equiorthogonal frequency hypercubes.*

Simpson, Todd, *Combinatorial proofs and generalizations of Weyl's denominator.*

Witzany, Jiri, *Reflection of stationary sets and the Mitchell ordering of normal measures.*

Temple University (7)

MATHEMATICS

Abay, Abera, *Some limiting distributions for renewal processes.*

Flood, Kevin C., *Two correspondence theorems for modular integrals.*

Parnes, Sheldon D., *A differential view of hypergeometric functions: Algorithms and implementations.*

STATISTICS

Dobbins, Thomas, *Probability inequalities for certain multivariate distributions.*

Holder, Daniel, *Moment based criteria for bioequivalence.*

Hu, Raymond, *Nonlinear regression estimation in compartment models.*

Sun, Zhigang, *Bias correction of nonparametric density estimation.*

University of Pennsylvania (9)

MATHEMATICS

Chen, Xiu-Xiong, *Extremal Hermitian metrices with curvature distortion in a Riemann surface.*

Garfield, Richard, *On the residue classes of combinatorial families of numbers.*

Lewis, Ethan, *Covering systems of congruences.*

Liu, Xiaobo, *Volume minimizing cycles in compact Lie groups.*

Pantev, Tony, *Comparison of generalized theta functions.*

Stevenson, Katherine F., *Galois groups of unramified covers of projective curves in characteristic p.*

Yen, Lily, *Contributions to the proof theory of hypergometric identities.*

Zhang, Zhenyu, *The best distribution of Riemannian manifolds and the elastic deformation with constant principal strain invariants.*

STATISTICS

Fridman, Moshe, *Hidden Markov model regression.*

RHODE ISLAND

Brown University (16)

APPLIED MATHEMATICS

Atay, Fatihcan M., *A differential-delay equation arising in the modelling of the pupil light reflex.*

Bose, Amitabha K., *Existence and stability of travelling waves for couples nerve axon equations.*

Jameson, Leland, *Wavelets and numerical methods.*

Murua, Alejandro, *Optimal transformations for prediction in continuous time weakly stationary processes, and applications to phoneme recognition.*

O'Sullivan, Peter, *Numerical simulation of (1) transition in a circular pipe and (2) a viscous jet.*

Ostrov, Daniel, *Hyperbolic conservation laws arising in chromatography.*

Tin, Siu-Kei, *On the dynamics of tangent spaces near a normally hyperbolic invariant manifold.*

Voth, Eric, *High-order finite-difference simulation of compressible flow around a circular cylinder in an acoustic field.*

MATHEMATICS

Choksi, Rustum, *Two topics on the equations of solid mechanics: The incompressible limit in nonlinear elasticity and conservation laws in fibre-reinforced materials.*

Gorman, John Robert, *L-functions of orders at zero.*

Hsia, Liang-chung, *A weak Néron model with applications to p-adic dynamical systems.*

Li, Hua-chieh, *p-adic dynamical systems.*

Liu, Yue, *Instability of solutions for generalized Boussinesq equations.*

Pagano, Andrea, *Analyticity of Bergman isometries.*

Tsalidis Stavros,, *The equivariant structure of topological Hochschild homology and the topological cyclic homology of the integers.*

Wang, Bin, *Archimedean height pairing.*

University of Rhode Island (4)

MATHEMATICS

Camouzis, Elias, *Oscillation and asymptotic behavior of certain difference equations.*

Farahani, Alireza, *Optimal control in cancer chemotherapy.*

Jaroma, John Jr., *Global asymptotic stability and oscillations of certain difference equations.*

Qian, Chuanxi, *Oscillation and global attractivity of differential and difference equations.*

SOUTH CAROLINA

Clemson University (12)

MATHEMATICAL SCIENCES

Bell, Marla Medford, *Priority and vacation queues with Markov renewal arrivals.*

Bell, Stephen Hinson, *Stochastic orderings of processes associated with the M/G/1 queue.*

Copeland, Karen Adelle Funk, *Statistical modeling of chemical kinetics.*

Copeland, Mark Alan, *Applications of dynamical system neural networks.*

Cottingham, Judith Elaine, *Thrackles, surfaces, and maximum drawings of graphs.*

Cribb, David Warren, *Stability properties of inclusive connectivity for graphs.*

Lee, Christopher Ronald, *Studies in dynamical systems.*

Lougee-Heimer, Robin, *Combinatorial approaches to energy, economic and allocation problems.*

Teitloff, Timothy Charles, *Permutation polynomials on unions of algebras.*

Turner, Craig Machael, *Towers of Hanoi on graphs and digraphs.*

Wallis, Charles Knox, *Domination parameters of line graphs of designs and variations of chessboard graphs.*

Wludyka, Peter Stanley, *Simultaneous inferences on variances.*

University of South Carolina (8)

MATHEMATICS

Deng, Baiqaio, *Biorthogonal wavelet packets.*

Fadimba, Koffi, *Regularization and numerical methods for a class of porous media equations.*

Hsu, Yu-Ping, *The UKK property of LW, 1 and C_E.*

Jonas, Kimball, *Graph coloring analogues with a condition at distance two.*

Lee, Mong Shu, *Smoothness spaces via wavelets on the closed internal [0, 1].*

Sisson, Paul, *Compact operators on trivial dual spaces.*

STATISTICS

Lee, Shiow-Jen, *System reliability with application to the strength of materials.*

Zia, Yi Mei, *Operating characteristics and extensions of Heckman's model for inference under nonignorable nonresponse.*

TENNESSEE

University of Memphis (5)

MATHEMATICAL SCIENCES

Burris, Anita Carol, *Vertex-distinguishing edge-colorings.*

Connor, George Henry, Jr., *Statistical analysis of physiological responses to heat.*

Lee, Sho Rong, *Characterization of the HIV waiting time distributions.*

Tsai, Gwei-Hung, *Design, model and analysis for multiyear rotation surveys.*

Yuan, Yilian, *Design, analysis and empirical evaluation of pseudo-uniform random number generators.*

University of Tennessee (5)

MATHEMATICS

Ackleh, Azmy, *Modeling biological processes in aggregation of phytoplankton.*

Dubejko, Tomasz, *Branched circle packings, discrete complex polynomials and the approximation of analytic functions.*

Galecki, Marek, *Enhanced cohomology and obstruction theory.*

Stefanopoulos, Vagelis, *The role of critical eigenvalues and eigenfunctions in a class of singularly perturbed problems.*

Thurston, Paul D., *The topology of 4-dimensional G-spaces and a study of 4-manifolds of non-positive curvature.*

Vanderbilt University (4)

MATHEMATICS

Brugh, Sherri Lynn, *The balanced projective dimension of torsion-free abelian K-groups.*

Fryd, Martin, *Taylor invertibility for commuting operator N-tuples in Hilbert space.*

Rafter, John Arthur Jr., *A partial characterization of canonical conjugate varieties of modal algebras.*

Ramey, Jonathan Edward, *Well-covered graphs with maximum degree three and minimal non-well-covered graphs.*

TEXAS

Southern Methodist University (4)

MATHEMATICS

Kraut, Gertrude, *Parallel direct and iterative methods for boundary value problems.*

Mitra, Nandini, *Extension of properties of compartmental matrices to M-matrices.*

Wang, Jing, *Numerical methods for Hamiltonian systems.*

Witt, Analee, *Studies in the numerical solution of initial value problems in ordinary differential equations.*

Texas A&M University (13)

MATHEMATICS

Coates, Keith, *Topics in operator algebras.*

Crist, Randall Lee, *Local mappings on operator algebras.*

Donsig, Allan Paul, *The Jacobson radical of triangular AF algebras.*

Hong, Dong, *Construction of stable local spline bases over arbitrary triangulations for optimal order approximation.*

Kabza, Lucyna, *On simplicity of some non-zero-symmetric near-rings.*

Lian, Jian-ao, *Compactly supported wavelets with dilation factor $a = 3$.*

Popescu, Gelu-Fanica, *Noncommutative dilation theory on Fock spaces.*

STATISTICS

Cheng, Cheng, *On estimation of quantile and quantile density functions.*

Knickerbocker, Ronald, *Dimension reduction in semiparametric measurement error models with errors in covariates.*

Michelson, Diane Kay, *Statistical process control for correlated data.*

Schmiediche, Henrick, *The visualization of multivariate time series data and statistics.*

Wang, Ching-Yun, *On robust estimation and likelihoods in logistic case-control studies with nondifferential measurement error.*

Zheng, Qi, *Some new techniques in compartmental modeling.*

Texas Tech University (1)

MATHEMATICS

Alex, Rajan, *An analytical finite element analysis of fracture in nonhomogeneous viscoelastic material.*

University of Houston (4)

MATHEMATICS

Burghduff, John, *Permanents of doubly stochastic matrices with zero main diagonal.*

Luo, Yongping, *Suslinian and weakly Suslinian continua.*

Roesmer, Christopher, *An application of nonstandard analysis to Dempster-Shafer theory.*

Wang, Zhongde, *Higher order TVD schemes for the approximation of hyperbolic systems of conservation laws.*

University of North Texas (3)

MATHEMATICS

Navarro-Fuentes, Jaime, *The continuous wavelet transform and the wave front set.*

Obeid, Ossama, *Property (H^*) and differentiability in Banach spaces.*

Simmons, Dayton C., *Applications of rapidly mixing Markov chains to problems in graph theory.*

University of Texas at Dallas (1)

MATHEMATICAL SCIENCES

Tang, Sen, *The asymptotic distributions of max and min t statistics for two-sample ordinal data.*

University of Texas, Austin (8)

MATHEMATICS

Chaatit, Fouad, *Some subclasses of Baire class I functions and uniform homeomorphisms.*

Chang, Chwen-ming Cathy, *Optimal and minimal experimental designs.*

Little, Thomas Dan, *Semilinear parabolic equations with Preisach hysteresis.*

McDonald, James Wade, *A finite index approximation of floer homology.*

Pak, Ro Jin, *Minimum disparity estimation in linear regression models: Robustness and efficiency.*

Wall, Barbara Jane, *Unconditional averages in the banach spaces $C(\alpha)$.*

Xioa, Shengyou, *Multigrid methods with application to reservoir simulation.*

Zhang, Changning, *Stochastic programming and optimal salesforce compensation schemes.*

UTAH

Utah State University (1)

MATHEMATICS AND STATISTICS

Zhou, Lu, *Krylov subspace methods for linear and nonlinear systems.*

VIRGINIA

George Mason University (2)

APPLIED AND ENGINEERING STATISTICS

Chow, Winston, *Fractional Brownian motion and fractional Gaussian noise.*

Hearne, Leonard, *Probability density estimation on a high dimensional space using random tessellations.*

University of Virginia (9)

APPLIED MATHEMATICS

Miller, Kristin Lyn, *End effects for plane deformations of an elastic anisotropic semi-infinite strip.*

Stotland, Stephanie Anne, *Comparison of orderings for parallel preconditioning.*

MATHEMATICS

Christner, Gene, *Applications of the extension properties of operators on Krein spaces.*

Leasher, Barbara, *Geometric aspects of Jordan pairs.*

Marron, Christopher Story, *Semigroups and the Bose-like oscillator.*

McDonnell, Joseph, *Asymptotics of resonance widths.*

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