Doctoral Degrees Conferred

1994–1995

ALABAMA

Auburn University (6)

DISCRETE AND STATISTICAL SCIENCES

Cox, Beverly Ann, *Cycle systems of the line graph of the complete graph.*

Kennedy, Janie Ailor, *2-pefect maximum packings and minimum coverings of K_n with hexagons.*

LeVan, Jerome Michael, *Designs and codes.*

Spicer, Erin, *Graph designs: With and without subsystems.*

Taunton, Rena Denise, *Boundary value problems by matching and functional differential equations.*

MATHEMATICS

Doheny, Kevin, *A higher lower bound on packing density of convex bodies in the plane.*

University of Alabama at Birmingham (2)

BIOSTATISTICS

Davis, Margaret, *An investigation of the generalized species-abundance distribution as a model for species-abundance data.*

Hsu, Chuanchieh, *Contributions to statistical methods for the mammary cancer chemoprevention experiments.*

University of Alabama in Huntsville (1)

MATHEMATICAL SCIENCES

Pendergrass, Marcus, *Complexity of set-valued maps.*

University of Alabama, Tuscaloosa (7)

APPLIED STATISTICS

Barrett, J. Douglas, *A probabilistic alternative to fuzzy logic controllers.*

Davis, Robert Eugene, *A Markov chain representation of the Shiryayev-Roberts procedure.*

Kao, Li-Hua, *Some nonparametric procedures for testing against the simple-tree alternatives in a two-way layout.*

Lin, Show-Wen (Winnie), *The use of combined control charts with forecast-based quality monitoring schemes.*

Pappanastos, Edward A., *A comparison of robust control charts.*

Redden, David Tillman, *A comparison of fuzzy linear regression methods and statistical regression models.*

Tseng, Iou-Tsyr (Sarah), *Robustness of forecast-based SPC schemes.*

ALASKA

University of Alaska (1)

MATHEMATICS

Sarnowski, Krzysztof, *Homology and cohomology of diagrams of topological spaces.*

ARIZONA

Arizona State University (6)

MATHEMATICS

Feng, Zhilan, *Childhood diseases under the impact of isolation.*

Kolossa, Katalin, *On-line coloring graphs.*

Lee, Duk-Hyung, *Lax-Phillips scattering theory of Axiom A differomorphisms.*

Palacios, Jose, *The dynamics of cellular flames.*

Qian, Weijie, *The dynamics of one dimensional nonlinear viscoelesticity equations.*

Tang, Baorong, *The analysis of predator-prey systems with distributed delay.*

University of Arizona (19)

APPLIED MATHEMATICS

Bevan, Edward, *Inversion of Fredholm integral equations of the Mellin convolution type arising in atmospheric remote sensing.*

Calini, Annalisa, *Knots: Dynamics and geometry.*

Cui, Haiyan, *Robustness and Bayesian analysis for spatial interpolation.*

Durazo-Arvizu, Ramon, *Bias adjusted estimates of survival following group sequential hypothesis testing.*

Elfendahl, Michael, *Investigation of the convergence properties of an iterative image restoration algorithm.*

Geddes, John, *Patterns in nonlinear optics.*

Hagberg, Aric, *Fronts and patterns in reaction-diffusion equations.*

Hays, Mark IV, *Classical and quantum mechanical studies of nonlinear lattices.*

Hunke, Elizabeth, *The time-dependent transformed Eliassen balanced vortex model of a tropical cyclone.*

Long, Andrew, *Cokriging, kernels, and the SVD: Toward better geostatistical analysis.*

MacEvoy, Warren Jr., *Numerical and analytical studies of instabilities in $1+1$ and $2+1$ dimensional periodic fully integrable partial differential equations: Methods and results.*

McGee, Daniel Jr., *Applications of neural networks to partial differential equations.*

Miller, Peter, *Macroscopic lattice dynamics.*

Ritchie, Justine, *Methods for statistical analysis of colonic crypt labelling.*

Sehnert, William, *Properties of the incomplete Abel transform and some of its generalizations.*

Soares, Edward, *Attenuation, noise, and image quality in single photon emission computed tomography.*

Sochos, Georgios, *Theoretical and numerical study of some problems related to turbulence and electromagnetic wave propagation.*

Wolfson, Michael, *Investigation of the semi-classical limit of a stochastic linear Shrödinger equation and its connection to ray chaos.*

Xu, Bing, *A discrete nonlinear model of age-structured populations.*

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 1994, to June 30, 1995) reported in the 1995 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 1996 issue of the *Notices.*

ARKANSAS

University of Arkansas (1)

MATHEMATICAL SCIENCES

Rai, Sanjay, *Analysis of a nonlinear functional differential equation for an age-structured population.*

CALIFORNIA

California Institute of Technology (10)

MATHEMATICS

Biyanov, Andrey Yurevich, *Evolution equations and semigroups of operators with the disjoint support property.*

Broughton, Wayne Jeremy, *Symmetric designs, difference sets, and autocorrelations of finte binary sequences.*

Ji, Shujuan, *Arithmetic and geometry on triangular Shimura curves.*

Jin, Yonggang, *Box codes and convolutional coding of block codes.*

Khare, Chandrashekhar, *Congruences between cusp forms.*

Ki, Haseo, *Topic in descriptive set theory related to number theory and analysis.*

Leung, Hoi Ming, *Conformal laminations on the circle.*

McGuire, Gary M., *Absolutely irreducible curves with applications to combinatorics and coding theory.*

Poltoratski, Alexei G., *Boundary behavior of Cauchy integrals and rank one perturbations of operators.*

Solecki, Slawomir, *Applications of descriptive set theory to topology and analysis.*

Claremont Graduate School (7)

MATHEMATICS

Babai, Dariouch, *A deterministic/continuous approach to the interaction between HIV and the immune system: The dynamics of antigenic variation and diversity.*

Crowley, Mary Susan, *Three-sided assignment games.*

Frantz, Michael E., *On the interaction of a cold front with a mountain ridge.*

Li, Liming, *Quasi-Monte Carlo methods for transport equations.*

Luo, Haisheng, *Curve estimation and graduation.*

Nguyen, Tien, *Mathematical modeling and digital signal processing techniques for modern digital communication systems.*

Purcell, Jerry, *Allpass filters.*

Stanford University (39)

ENGINEERING-ECONOMIC SYSTEMS

Chu, Pin-Yu, *Cognitive conflict resolution: Mediation analysis and strategies.*

Davidson, Ron, *Action representation for planning under certainty.*

Jo, Dae-Chul, *Substitution dynamic modeling with system theoretic approach.*

Johnson, Blake Eliot, *The optimal growth portfolio as pricing portfolio for dynamically traded assts.*

Johnson, Eric Richard, *Automated verbal summary for decision analysis.*

Korver, Clinton Douglas, *The role and value of information in negotiation.*

Leu, Keh-Shiou, *Representing symmetry in decision diagrams with restrictive arrows.*

McKeon, Scott M., *A benefit function approach to Pareto efficiency in the presence of consumption externalities.*

Reid, Clifford Allen, *Representing and analyzing the strategic position of the firm: A resource-based approach.*

Saito, Richard, *Quality regulation of durable goods in the presence of externalities.*

Sit, Ming Fai, *Bidding evaluation and strategies: An application in the competitive electric power industry.*

MATHEMATICS

Banks, William David, *Exceptional representations on the metaplectic group.*

Chan, Claire C., *Structure of the singular set in energy-minimizing partitions and area-minimizing surfaces in RN.*

Drachman, Jordan Allen, *Soap films bounded by non-closed curves.*

Fraser, Maia Judith, *Classifying Legendrian knots in tight contact 3-manifolds.*

Kallel, Sadok, *The geometry of divisors and holomorphic maps on Riemann surfaces.*

Karagueuzian, Dikran Bernard, *Homology of complexes of degree one graphs.*

Kra, Bryna Rebekah, *Commutative groups of diffeomorphisms of the circle.*

Makar-Limanov, Sergei, *Tight contact structures on solid tori.*

McCuan, John Edward, *Symmetry via spherical reflection and spanning drops in a wedge.*

Minicozzi, William Philip II, *Geometric variational problems related to symplectic geometry.*

Nishibata, Shinya, *Hyperbolic conservation laws with relaxation.*

Norbury, Paul Timothy, *Magnetic monopoles and the loop group.*

Sanders, Marc David, *Classifying spaces and Dirac operators coupled to instantons.*

Vo, San Cao, *The spin L-function on the symplectic group GSp(6).*

Yu, Shih-Hsien, *Existence of discrete shock profiles for the Lax-Wendroff scheme.*

Zeisel, Eric Bruce, *Maps of Stein manifolds without triple points.*

OPERATIONS RESEARCH

Ait-Sahlia, Farid, *Optimal stopping and weak convergence methods for some problems in financial economics.*

Lennon, Tava Maryanne, *Response time approximations for multi-server polling models with manufacturing applications.*

Loh, Wing Wah, *On the method of control variates.*

Luenberger, Robert Alden, *Contractive transformation image compression via mathematical programming.*

Olsen, Timothy Robert, *Greenhouse gas abatement-Joint maximization under uncertainty.*

Ward, Julie Ann, *Minimum concave cost flows in series parallel networks.*

Yang, Tzu-Hui, *Efficient simulation techniques with application to ATM switches.*

STATISTICS

Hull, David Alexander, *Information retrieval using statistical classification.*

Ip, Hak-Sing (Eddie), *A stochastic EM estimated in presence of missing data--theory and applications.*

Kim, Chul-Ki, *Nonparametric regression for censored and truncated data.*

Land, Stephanie Ruth, *Adaptive signal regression.*

Shan, Zhaolin, *Sequential detection of parameter changes in linear dynamic systems and regression models.*

University of California, Berkeley (50)

BIOSTATISTICS

Lu, Biao, *The expectation-smoothing approach with applications to ill-posed statistical inverse problems.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Bailey, Diane Elizabeth, *Manufacturing work organization in the semiconductor industry: An empirical investigation of the structure, functioning and performance of production work groups and improvement teams.*

Carmon, Tali Fried, *Production planning and scheduling for semiconductor device testing.*

Chick, Stephen Eric, *Product and process design with engineering-based statistical models.*

Cunningham, Sean Patrick, *The development and use of in-line yield estimates in semiconductor manufacturing.*

Ghajarrahimi, Bahram, *Multi-family, multi-item lot scheduling on non-homogeneous machines.*

Pekoz, Erol A., *Improving Poisson approximations and bounds.*

Sattler, Linda, *Empirical techniques for analyzing organizations: An examination of the semiconductor industry.*

Tsai, Pei-Sung, *Probability applications in engineering.*

Wang, Chia-Li, *Light traffic approximations for regenerative queueing processes.*

MATHEMATICS

Adalsteinsson, David, *Etching, deposition and lithography using level set techniques.*

Alevras, Alexander, *Continuous semigroups of *-endomorphisms of factors of Type I_∞ and of Type II_1.*

Avigad, Jeremy, *Proof-theoretic investigations of subsystems of second-order arithmetic.*

Bernstein, Daniel J., *Detecting perfect powers in essentially linear time, and other studies in computational number theory.*

Carey, John Corning, *On Beurling's approach to the Riemann hypothesis.*

Concordel, Marie Christine, *Periodic homogenization of Hamilton-Jacobi equations.*

Cortez, Ricardo, *Impulse-based particle methods for fluid flow.*

Drisko, Arthur A., *Loops, latin squares, and the Alon-Tarsi conjecture.*

Egilsson, Agust Sverrir, *On embedding a stratified symplectic space in a smooth Poisson manifold.*

Elston, Gillian Zoe, *Semigroup expansions using the derived category, kernel, and Malcev products.*

Filippini, Robert James, *The symplectic geometry of the theorems of Borel-Weil and Peter-Weyl.*

Kahn, Jeremy Adam, *Holomorphic removability of quadratic polynomial Julia sets.*

Kim, Yonghoan, *New values in domineering and loopy games in Go.*

Kohel, David R., *Endomorphism rings of elliptic curves over finite fields.*

Li, Ren-Cang, *Numerical solutions of ODE's.*

Liang, Hong, *Subfactors and spin models.*

Ligocki, Terry, *Minimizing knot energies using simulated annealing.*

Lippincott, Tom, *A complete system of proof for diagrammatic languages.*

Marchant, Simon, *On the hypercyclicity and invariant subspaces of invertible composition operators.*

Mattes, Josef, *Applications of quantum groups.*

Moulton, David Petrie, *Number theory and groups.*

Nunes, Marc DaCosta, *Cohomological results in monoid and category theory via classifying spaces.*

Park, Hyungju, *A computational theory of Laurent polynomial rings and multidimensional FIR systems.*

Parks, Michael, *Algorithms to compute the matrix exponential.*

Powell, Corey, *Two problems from elementary number theory involving the Euler phi-function.*

Pyle, Elisabeth, *Abelian varieties over Q with large endomorphism algebras and their simple components over Q.*

Rojas, Joseph Maurice, *Cohomology, combinatorics, and complexity arising from solving polynomial systems.*

Saint John, Rose, *Theory of computation for the real numbers and subrings of the real numbers following Blum/Shub/Smale.*

Schlatter, Mark Douglas, *Extensions of results of Morley and Shelah to permutation groups.*

Schreiber, Sebastian, *Asymptotically hyperbolic dynamics.*

Shapiro, Jonathan Edward, *Relative angular derivatives.*

Simic, Slobodan, *Anosov flows of codimension one.*

Taylor, Graham Andrew, *On the existence of SO(n)-irreducible anti-self-dual connections on 4-manifolds.*

Teti, Fred, *Simple and natural E-rings.*

Tong, Deyu, *Quantum invariants from UQ(SP(4,C)).*

Tzermias, Pavlos, *Torsion in Mordell-Weil groups of Fermat Jacobians.*

Wilkinson, Anne Marie, *Stable ergodicity of the time-one map of a geodesic flow.*

Won, Dae Yeon, *On the complex Finsler manifolds.*

Yan, Dong, *Yang-Mills theory on symplectic manifolds.*

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

University of California, Davis (8)

MATHEMATICS

Bagh, Adib, *Epigraphical analysis and set convergence.*

Beatty, Morris Lee, *Green function for the Dirac operator with monodromy on the Poincaré disk.*

Brunzie, Marion, *Generalized dual billiards.*

Groah, Jeffrey Marvin, *Solution of the relativistic Euler equations on non-flat spacetimes.*

Penkava, Michael Robert, *Cohomology of graded algebraic structures and the homology of graph complexes.*

Simcik, Luke Jacob, *Resolving non-smooth solutions to discretized ill-posed problems.*

STATISTICS

Cai, Zong-wu, *Statistical inference under dependence.*

McQuarrie, Allan, *Small-sample model selection in regressive and autoregressive models: A signal-to-noise approach.*

University of California, Irvine (4)

MATHEMATICS

Belenkiy, Andrey (Ari), *Convergence of Fourier-Jacobi series.*

Burns, William Charles, Jr., *On regularities of the minimal solutions to the Cauchy Riemann equations in the polydisk of C^2.*

Hauk, Shandy, *Analytic and computational investigations of the Stommel-Charney model of the Gulf Stream.*

Lin, Ing-Jer, *Factorization and duality in the Hardy spaces of the polydisc.*

University of California, Los Angeles (24)

MATHEMATICS

Allman, Elizabeth Spencer, *Polynomials without roots in division algebras.*

Angelini, Flavio, *Two theorems on linear series.*

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

Bihari, Barna L., *Multiresolution schemes for the numerical solution of conservation laws.*

Ghalayini, Bassem, *Singularly perturbed optimal control problems with time-delay.*

Girnius, Zara, *K-admissibility of finite groups over quadratic and cyclotomic fields.*

Hamilton, Emily, *Geometrical finiteness for hyperbolic orbifolds.*

Hilden-Minton, James Andrew, *Multilevel diagnostics for mixed and hierarchical linear models.*

Lue, Heng-Hui, *Principle Hessian direction based regression trees.*

McArthur, Monica, *Aspects of convergence laws for infinitary logic on classes of finite models with arbitrary measures.*

Ng, Chi-Wah, *Fixed point sets of maps and pairs.*

Nolan, Jeanine Kay, *Fixed points of boundary-preserving maps of punctured discs.*

O'Neill, Michael Davlin, *Some results on H^∞ and the Bloch space.*

Paik, Meegyeong, *Finite difference approximations for hyperbolic systems with two boundaries.*

Senouf, David, *Complex singularities for Burgers' equation with complex viscosity and asymptotic approximations of the zeros of Fourier integrals.*

Soares, Marcus Vinícius Araújo, *Multiplicity one results for unitary groups.*

St. John, Katherine, *Logics of recursion.*

Wagner, Joyce, *An algorithm for calculating the Nielsen numbers on surfaces with boundary.*

Wang, Tachun, *Shape from shading with interreflections.*

Whitney, Glen, *Models of recursion for non-determinism and concurrency.*

Wolfenden, Peter, *Fixed points of deformations of polyhedra with local cut points.*

Yu, Ching-Chau, *Nonlinear eigenvalues and analytic-hypoellipticity.*

Yuan, Ke-Hai, *Asymptotics for nonlinear regression models with applications.*

Zeitzew, Michael, *Numerical methods for nonlinear ordinary differential equations with different time scales.*

University of California, Riverside (4)

MATHEMATICS

Green, Michael Lawson, *Multiparameter semimartingale integrals and boundedness principles.*

STATISTICS

Ferryman, Thomas, *A comparison of nine image reconstruction algorithms and the development of two contextual algorithms for binay.*

Lai, Ching-Lin, *Determining the parameter settings and measuring the influence of observations in response surface experiments.*

Lee, Sang Eun, *The robustness of Bayesian factor analysis estimates.*

University of California, San Diego (10)

MATHEMATICS

Carini, Luisa, *Combinatorial methods for computing plethysms of Schur functions.*

Casey, Michael Patrick, *Computation in discrete-time dynamical systems.*

Foskey, Mark Stephen, *Higher projective planes and the cohomology of n-fold loop spaces.*

Huang, Wei, *Some results in formal knot theory.*

Lee, Shang-Min, *Markov processes whose hitting distributions are absolutely continuous with respect to those of a given process.*

Myers, Perla Lahana, *Euclidean and Heisenberg graphs: Spectral properties and applications.*

Nowak, Joseph Edward, *Biholomorphic equivalence for a class of generic manifolds.*

Weening, Frederick John, *Existence and uniqueness of non-parallel slit maps.*

Woesler, Ulrich, *Projective modules and extensions in the category O for rank two Kac-Moody Lie-algebras.*

van Wamelen, Paul, *The CM character of a hyperelliptic curve.*

University of California, Santa Barbara (5)

MATHEMATICS

Freedman, Walden, *Alternative Dunford-Pettis properties.*

Friedman, Kurt Aaron, *Pfitzner's lemma and boundedness in C*-algebras.*

STATISTICS AND APPLIED PROBABILITY

Cheng, Benny Ngo, *Some techniques in modelling multivariate stable assets.*

Iyer, Srikanth, *Limit theorems for functionals of superprocess.*

Machiraju, Rajasri, *Some contributions to spatial statistical modeling.*

University of California, Santa Cruz (4)

MATHEMATICS

Koebbe, Matthew, *A model of pulse propagation and interaction within FitzHugh-Nagumo nerve axiom bundles.*

Popp, Octavian, *Double bracket periodic Toda lattice and the projection of limit invariant tori.*

Record, Ronald, *The method of critical curves for discrete dynamical systems in two dimensions.*

Shao, Bin, *Second order asymptotics for the discrete analogue of a class of pseudodifferential operators.*

University of Southern California (10)

MATHEMATICS

Aygen-Satik, Yegan, *Optimal bounds of asymptotic regularity.*

Hamdan, Kamal, *The linear quadratic regulator problem for thermoelastic systems with boundary control and unbounded observations.*

Kazimir, Joseph Raymond, *Adaptive parameter estimation for evolution equations in Hilbert space.*

Luk, Ho-Ming, *Stein's method for the Gamma distribution and related statistical applications.*

Martin, Daniela Renate, *Combinatorial problems from mapping and reading DNA sequences.*

Owens, Kenneth Dewane, Jr., *Modelling and inverse problems for ocean surface drifters.*

Port, Ethan, *Stochastic analysis of DNA physical maps and restriction clone libraries.*

Raghu, Poornima, *Approximation in the identification of second order degenerate distributed parameter systems.*

Smazenka, Robert Louis, *Nonlinear stochastic differential equations and the exponential formula of Crandall and Liggett.*

Sun, Fengzhu, *The polymerase chain reaction and branching processess.*

COLORADO

Colorado School of Mines (8)

MATHEMATICS AND COMPUTER SCIENCE

Bertanzetti, Arthur D., *Solution of the axle weight distribution problem for piggyback trailers using a mixed integer, two algorithm method.*

Bond, Gary D., *A mathematical analysis of the Lerchs and Grossmann algorithm and the nested Lerchs and Grossmann algorithm.*

Fei, Tong, *Elimination of numerical dispersion in finite-difference modeling and migration by flux-corrected transport.*

Greening, Doran R., *A modified simplex method for the (AXIAL) multi-index assignment problem.*

Ince, Erdem, *A parallel balanced polynomial unconstrained geometric programming algorithm.*

Jackson, Jack A., Jr., *A mathematical experiment in dual geometric programming.*

Liu, Zhenyue, *Migration velocity analysis.*

Nuseir, Ameina Sari, *Symbolic computation of exact solutions of nonlinear partial differential equations using direct methods.*

Colorado State University (4)

MATHEMATICS

Tausch, Johannes, *Equivariant preconditioners for boundary element methods.*

Werner, Caryn, *Moduli for a surface of general type.*

STATISTICS

Biggerstaff, Bradley, *Random effects methods in meta-analysis with application in epidemiology.*

Wang, Yong Cheng, *Non-additivity of row-column designs with industrial applications.*

University of Colorado at Denver (1)

MATHEMATICS

Ressel, Klaus, *Least-squares finite-element solution of the neutron transport equation in diffusive regimes.*

University of Colorado, Boulder (8)

APPLIED MATHEMATICS

Bollt, Erik, *Controlling chaos, targeting and transport.*

Herod, Scott, *Computer assisted determination of Lie point symmetries.*

Keiser, James, *On* I. *Wavelet based approach to numerical solution of nonlinear partial differential equations* II. *Nonlinear waves in fully discrete dynamical systems.*

MATHEMATICS

Arledge, Jane, *5-units attached to hyperelliptic curves of genus 3.*

Bonan-Hamada, Catherine May, *Orthogonal Laurent polynomials and indeterminate strong Stieltjes moment problems.*

Larue, David, *Left distributive and left distributive idempotent algebras.*

Liu, Faan, *Hausdorff dimension of the support of singular measures.*

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

University of Denver (1)

MATHEMATICS AND COMPUTER SCIENCE

Liu, Guoping, *Time and wavelength division multiplexed optical interconnections.*

CONNECTICUT

University of Connecticut (7)

MATHEMATICS

Humphreys, Lisa D., *Numerical and theoretical results on large amplitude periodic solutions of a suspension bridge equation.*

Kim, Euhee, *Long-time behavior of solutions of a multi-dimensional electrophoretic model with a single reaction.*

Li, Yuanqian, *Limit theorems in reflected Brownian motions and in Markov chains associated with iterated function systems.*

Wang, Chunying, *Numerical and theoretical result for the real Monge-Ampére equation.*

STATISTICS

Mallick, Bani K., *Bayesian semiparametric modeling using mixtures.*

Pai, Jeffrey Shyh-Chang, *Bayesian analysis of ARIMA processes.*

Yang, Tae Young, *Computational approach to Bayesian inference for software reliability.*

Wesleyan University (5)

MATHEMATICS

Campagna, Matthew J., *Single-relation almost completely decomposable groups.*

Feng, Li, *Zero entropy circle maps.*

Hubner, Kristin I., *Sarkovskii types of patterns.*

Loth, Peter, *Warfield groups and their Pontrjagin duals.*

Masaveu, Oscar, *Dense subsets of some topological groups.*

Yale University (9)

MATHEMATICS

Baruch, Ehud Moshe, *Local factors attached to representations of p-adic groups and strong multiplicity one.*

Ding, Jintai, *Spinor and oscillator representations of quantum groups.*

Kirillov, Alexander A., *Traces of intertwining operators and MacDonald's polynomials.*

Knight, Harold K., Jr., *Piecewise linear minimization formulas and Lagrangian varieties for quivers.*

Saito, Naoki, *Local feature extraction and its applications using a library of bases.*

Thiele, Christoph Martin, *Time-frequency analysis in the discrete phase plane.*

Wong, Yui Kwan, *The first fundamental theorem of covariants for G_2 and Spin$_7$.*

STATISTICS

Kelleher, Thomas, *Admissibility of test-based estimators.*

Kiuchi, Amy S., *Predicting progression to AIDS using change points in the series of T4 counts.*

DELAWARE

University of Delaware (4)

MATHEMATICAL SCIENCES

Allers, Andrew A., *2.5-dimensional electrical impedance tomography.*

Fatnani, Sangita Shanker, *Statistical assessment of hazardous waste sites.*

Khashanah, Khaldoun M., *Boundary-transmission problems for acoustics in mixed media.*

Liu, Fengshan, *Ill-posed nonlinear operator equations and monotone variational inequalities.*

DISTRICT OF COLUMBIA

American University (3)

MATHEMATICS AND STATISTICS

Maida, Paula, *The effects of reading and note-taking assignments in a university finite mathematics course.*

Tascione, Carol, *The effects of student self-assessment on students' attitudes and academic performance in a college mathematics course.*

Xiao, Weizheng, *Robustness of bioequivalence procedures under Box-Cox alternatives.*

George Washington University (3)

STATISTICS

Lew, William, *A probabilistic analysis of elastic buckets in m-ary and digital search trees.*

Sinclair, Michael, *Measurement error in interview-reinterview or test-retest studies.*

Younes, Naji, *A family of event-time models with smooth baseline hazard.*

Howard University (1)

MATHEMATICS

Al-Hoori, Amatelawa, *The linear three dimensional shallow water theory.*

FLORIDA

Florida Institute of Technology (2)

APPLIED MATHEMATICS

Drici, Zahia, *Stability at large scale nonlinear dynamical systems.*

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

Florida State University (6)

MATHEMATICS

Cai, Yihong, *Domain decomposition algorithms and parallel computation techniques for the numerical solution of PDEs with applications to the finite element shallow water flow modeling.*

Sun, Biansheng, *Doubly-null-cobordant links.*

Thies, Andrew T., *A computational study of turbulent jet flows and their instability waves.*

STATISTICS

Gomatam, Shanti, *On nonparametric regression for current status data.*

Lawson, Kevin L., *Bayesian nonparametric estimation via Gibbs sampling for coherent systems with redundancy.*

Wu, Hulin, *Regression models for spatial binary data with application to the distribution of plant species.*

University of Florida (7)

MATHEMATICS

Crosby, Frank Jamerson, *Maxpolynomials and morphological template decomposition.*

Daniels, Frank Emmett, *The rank parity function of Srinivasa Ramanujan.*

Jamieson, Michael Warren, *Set theory with a universal set.*

Li, Lin, *Integration in locally convex spaces.*

Reti, Zoltan, *Five problems in combinatorial number theory.*

Shih, Chun-Liang, *Active set strategy in optimization.*

Valaristos, Antonios, *Period doubling patterns and equicontinuity of iterate in one dimensional dynamics.*

University of South Florida (3)

MATHEMATICS

Albrecht, William George, *On the minimum discriminant of algebraic number fields.*

Cao, Jun, *Global dynamics of dissipative generalized KdV equations and Boussinesq equations.*

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

GEORGIA

Emory University (4)

MATHEMATICS AND COMPUTER SCIENCE

Acree, Franklin Glenn, *Hamiltonian problems and the forbidden subgraph method.*

Gunderson, David Shane, *Extremal problems on Boolean algebras, sum-sets and hypergraphs.*

Sun, Quicuu, *Relativistic theories in f-atlas.*

Yang, Xiufa, *On Backlund transformations for nonlinear differential equations.*

Georgia Institute of Technology (6)

MATHEMATICS

Banaszuk, Andrzej, *Approximate feedback linearization at nonlinear control systems.*

Donovan, George Cassinis, *Fractal functions, splines, and wavelets.*

Gedeon, Tomas, *Cyclic feedback systems.*

Howard, Timothy G., *Predicting the asymptotic behavior for differential equations with a quadratic nonlinearity.*

Pinto, Joao Teixeire, *Slow motion manifolds for a class of evolutionary equations.*

Young, Todd Ray, *Saddle-node bifurcations with homoclinic orbits.*

University of Georgia (7)

MATHEMATICS

Burthe, Ronald, *The average witness is 2.*

Hebda, Beata, *Curvature and singularities of projections.*

Sherman, Deborah, *The* Mod 2 *cohomology ring of* $Sz(8)$*, the smallest Suzuki group.*

STATISTICS

Dai, Yu-Qing, *Statistical inference on space time bilinear models.*

Dutta, Harinarayan, *Inference for conditionally heteroscedastic time series models.*

Sajjan, Shivayogi G., *Inference and prediction for a class of linear and nonlinear models with dependent observation.*

Wu, Shu-Fei, *Multiple comparison procedures with the average.*

HAWAII

University of Hawaii (2)

PUBLIC HEALTH SCIENCES

Li, Lei, *Mixed models for analysis of survival data:Estimation, simulation, and application.*

Sanguanprasit, Boosaba, *Maternal education and infant mortality in Thailand: Comparison between the proportional hazards models with multiplicative and additive functions.*

IDAHO

Idaho State University (5)

MATHEMATICS

Gifford, David L., *Best* L_p *approximations by convex functions.*

Hardy, Timothy L., *Effective parameters of composite materials.*

Libis, Carl A., *Minimal interpolation and pre-orthogonal polynomials.*

Oxley, Harry S., *Genetics in terms of dynamical systems.*

Searcy, Scott S., *Representation theory of the general linear group on tensor spaces.*

University of Idaho (1)

MATHEMATICS AND STATISTICS

Brennan, Michael, *A study of the existence of solutions to some initial valve problems for impulsive differential equations.*

ILLINOIS

Illinois Institute of Technology (1)

MATHEMATICS

Lin, Biquan, *Wavelet phase filter for denoising in tomographic image reconstruction.*

Illinois State University (4)

MATHEMATICS

Mogill, Alex, *Assessing the pedagogical content a knowledge and teaching/learning paradigms of potential candidates for alternative certification in Illinois.*

Stiles, Nancy, *Graphing calculators and calculus.*

Van Zoest, Laura, *The impact of small-group discussion on preservice secondary mathematics teachers' classroom observations.*

Wilson, Boyd, *The development and evaluation of an instructional program in statistical literacy for use in post-secondary education.*

Northern Illinois University (7)

MATHEMATICAL SCIENCES

Boardman, John P., *Quasi-measures on completely regular spaces.*

Choudhary, Samar, *On numerical solutions of large sparse linear systems and applications.*

Cinemre, Haskiz, *Topics in the theory of periodic differential equations.*

Coskun, Erhan, *Numerical analysis of Ginzburg-Landau models for superconductivity.*

Hao, Wenge, *Long time behavior of bipolar fluid flows.*

Rosenbloom, Elaine, *The asymptotic solutions of linear differential equations.*

Wills, Sheryl L., *Instability and regularity results for the solution of the bipolar fluid flow equations in polygonal domains.*

Northwestern University (12)

MATHEMATICS

Byers, Miriam, *Topological transitivity of a class of piecewise monotone expanding maps of the interval with a single discontinuity.*

Cheng, Wai Yan, *Asymptotics of exit density of Brownian motion.*

Constapel, Petra, *Length of tor and torsion in tensor products.*

Doeff, Hendrik Erik, *Rotation vectors for torus homeomorphisms not homotopic to the identity.*

Flannery, Christopher, *Spaces of algebraic cycles and correspondence homomorphisms.*

Gately, John, *Rees valuations of monomial ideals.*

Kassof, Jordan, *A new decomposition structure for Smale diffeomorphisms of surfaces.*

Lin, Mi, *On the solvability of some curvature quotient equations.*

O'Leary, Michael P., *Conduction convection problems with change of phase.*

Sorensen, Jody, *Representations and averaged equations for systems of weakly coupled limit cycle oscillators.*

Yan, Zhiming, *The restrictions on the charged and the regular Newtonian systems.*

STATISTICS

Hall, Daniel Blair, *Extended generalized estimating equations for longitudinal data.*

Southern Illinois University at Carbondale (2)

MATHEMATICS

He, Min, *Semigroups dependent on parameters.*

Khosravani, Azar, *Integers represented by positive definite binary Hermitian forms.*

University of Chicago (14)

MATHEMATICS

Chase, David, *Homologically non-trivial group actions on manifolds.*

Cheah, Jan, *The cohomology of smooth nested Hilbert schemes of points.*

Choi, Youngsoo, *Well-posedness and scattering results for fifth order evolution equations.*

Fakhruddin, Najmuddin, *Algebraic cycles on generic Abelian varieties.*

Gong, Xianghong, *Real analytic submanifolds under unimodular transformations.*

Howell, Gregory, *Kähler-Einstein metric on products.*

Kowalsky, Nadine, *Actions of non-compact simple groups on Lorentz manifolds and other geometric manifolds.*

Politis, Anastasios, *Sharp results on the relation between weight spaces and BMO.*

Quiroga, Raul, *The stretch of a foliation and geometric superrigidity for locally symmetric leafwise Riemannian metrics.*

Sage, Daniel, *The geometry of fixed-point varieties on affine flag manifolds.*

Sottile, Francesco G., *Real enumerative geometry for the Grassmannian of lines in projective space.*

Srinivasan, Balaji, *Families of filtered Higgs bundles.*

Staffilani, Gigliola, *The initial value problem for some dispersive differential equations.*

Weiner, Matthew, *Hallucinations, symmetry, and the structure of primary visual cortex: A bifurcation theory approach.*

University of Illinois at Chicago (11)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Burke, Douglas, *Computations over Fq(T) with modular symbols.*

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

Isaacs, Andrew, *Whole number concepts and operations in grades 1 and 2: Curriculum and rationale.*

Jia, Lixing, *Modified sum methods for constrained optimization.*

Kaminski, Marek, *Sums of dependent random variables.*

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

Raghib, M. Abu-Saris, *Filtering of a Weiner-Poisson driven stochastic process.*

Sa'ar, David Hersonsky, *Universal constraints in discrete groups.*

Tang, Chunyu, *Nonparametric regression analysis for repeated measured data using wavelets.*

Yan, Bo, *Modeling and identifying optimum design for fitting dose-response and estimating ED_p based on raw optical density data.*

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

University of Illinois, Urbana-Champaign (24)

MATHEMATICS

Alacon, Eberth, *Convex lattice polygons.*

Bialek, Paul Richard, *Ramanujan's formulas for the coefficients in the power series expansions of certain modular forms.*

Bradley, David, *A sieve auxiliary function.*

Brown, Scott, *Enumeration and classification of ribbon knots.*

Carpenter, Bruce, *State transformers and modes of computation.*

Chan, Heng Huat, *Contributions to Ramanujan's continued fractions, class invariants, partition identities and modular equations.*

Chang, Yi-Wu, *Graph representations using stars, trees, intervals and boxes.*

Faber, Richard, *Operators and subspaces of L_0.*

Holdener, Judy, *Automorphisms and symbols in K_2.*

Iovino, Jose, *Stable theories in functional analysis.*

Kang, Jeongheung, *Complemented subspaces of weak L_1.*

Kline, Bradford, *A global Boettcher's theorem.*

Lampe, Richard Elliot, *Discrete multiple valued dynamical systems.*

Lewenberg, Adam Henry, *On elementary pairs of 0-minimal structures.*

Malouf, Janice, *Integer sequences.*

Miller, Christopher Lee, *Polynomially bounded 0-minimal structures.*

Petrunin, Anton, *Quasigeodesics in multidimensional Alexandrov spaces.*

Reed, Mary Lynn, *The Frobenius direct image of line bundles and the structure of representations.*

Zimmer, G. Beate, *Nonstandard vector integrals and vector measures.*

STATISTICS

Kim, Hae Rim, *Some consideration to test dimensionality in item response theory.*

Li, Hsin-Hung, *New nonparametric statistical procedures for analyzing bias/DIF and dimensionality in item response data.*

Shen, Liji, *Some topics on nonparametric regression and regression quantiles.*

Xu, Yi, *Sequential confidence bands for density.*

Zhou, Kenneth Qing, *Quantile regression and survival analysis.*

INDIANA

Indiana University (5)

MATHEMATICS

Dabrowski, Andrew, *Set theoretic representation of form systems and elementary universes.*

Lau, Ko-Hin, *Property w-A, and reflexivity of an Abelian algebra of operators.*

Pata, Vittorino, *Limit theorems for sums of free random variables.*

Smotzer, Thomas, *Quasisimilarity of invariant subspaces for uniform Jordan operators of infinite multiplicity.*

Zucchi, Adela, *Operators of class C_0 with spectrum in multiply connected regions.*

Purdue University (21)

INDUSTRIAL ENGINEERING

Chen, Huifen, *Stochastic root finding in system design.*

Cho, Geon, *Limited column generation and related methods for local access telecommunication network design & expansion-formulation, algorithm, and implementation.*

Parker, Stephen Richard, *Military force structure and realignment through dynamic simulation.*

Wang, Jin, *Contributions to Monte Carlo analysis: Variance reduction, random search, and Bayesian robustness.*

MATHEMATICS

Bennethum, Lynn, *Multiscale, hybrid mixture theory for swelling systems with interfaces.*

Delfino, Donatella, *Cofiniteness and vanishing of local cohomology modules, and colength of conductor ideals.*

Kim, Dai-Gyoung, *Wavelet decomposition and function spaces on the unit cube.*

Lai, Shanzhong, *Weighted norm inequalities for general operators.*

Leong, Ieng-Tak, *Lefschetz Riemann Roch theorem.*

Liu, Nianzheng, *Geometric theory of valued fields.*

Tang, Pugi, *Quasiconformal homeomorphisms on CR manifolds.*

Xu, Changsheng, *The existence and uniqueness of simply connected compact groups with Weyl groups W such that the order of W is not divisible by the square of p.*

Yeh, Li-Ming, *On the hydrodynamic model for semiconductor devices.*

Yie, Ikkwon, *Unramified coverings of the affine line in small positive characteristic.*

Zhang, Biao, *Lifetimes and occupation times of conditional Brownian motion.*

STATISTICS

Ahn, Hyungsok, *Semimartingale representation and the Wong-Zakai problem.*

Chen, Yung-Pin, *A study of the trade-offs between balance and randomness in various sequential sampling procedures.*

Evans, Bradley P., *Some improvements to Taguchi analysis.*

Lu, Michael Guoqing, *Weighted wavelet filter and its application in function estimation.*

Tang, Xianglian, *Convergence rates of multivariate deconvolution and compound Poisson estimation.*

Yang, Ruoyong, *Development of noninformative priors for Bayesian analysis.*

University of Notre Dame (3)

MATHEMATICS

Ashline, George, *The defect relation of meromorphic maps on parabolic manifolds.*

Kobal, Damjan, *Karoubi tower and K theory invariants of Hermitian forms.*

Wu, Deyun, *Estimates for $\bar{\partial}$ and $\bar{\partial}_b$ on bounded convex domains in $\mathbb{C}^2$.*

IOWA

Iowa State University (16)

MATHEMATICS

Diesslin, Brenda Ann Wolfe, *Study of directionally solidified eutectics with emphasis on oscillatory instabilities.*

Kang, Hye-Jeong, *Limit theorems for branching Markov processes.*

O'Donnell, Brian, *Nonlinear filtering in stochastic dynamical systems.*

Palasinska, Katarzyna M., *Deductive systems and finite basis properties.*

Vidyashankar, Anand, *Large deviation rates for branching processes in fixed and random environments.*

STATISTICS

Atuncar, Gregorio Saravia, *Statistical inference for real-valued Markov chains and some applications.*

Dunnigan, Geri Marie, *Sampling strategies for an optimal control problem.*

Fukuchi, Jun-ichiro, *Bootstrapping extremes of random variables.*

Huang, Mu-Yeh, *Design of developmental test programs for one-shot systems with two-state reliability.*

Kang, Shin-Soo, *Life-table analysis for correlated response times.*

Ko, Seoung-gon, *Optimal flexible two-stage plans.*

Rana, Abdul Wajid, *Variance estimation in repeated samples of size one.*

Shin, Chungyeol, *On the multivariate random and mixed coefficient analysis.*

Vidyashankar, Anand V., *Large deviation results for branching processes in fixed and random environments.*

Wang, Ouhong, *Application of numerical interval analysis for statistical computing in a massively parallel computing environment.*

Yalcin, Ilker, *Nonlinear factor analysis.*

University of Iowa (21)

APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES

Dai, Weizhong, *Numerical solutions of unsteady incompressible Navier-Stokes equations using an explicit finite analytic scheme.*

Hung, Pi-Fang, *An asymptotical O(NL)-iteration path-following linear programming algorithm that uses wider neighborhood in its implimentation.*

MATHEMATICS

Buber, Mehmet Tekamul, *Foundations of metric fixed point theory and aspects of constructive fixed points.*

Bullock, Douglas, *Finiteness results for skein modules of 3-manifolds.*

Chen, Yan, *Galerkin methods for solving single layer intergral equations in three dimensions.*

Erlijman, Juliana, *New subfactors from braid group representations.*

Feil, David, *Some radical properties of semigroups.*

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

Kremer, Darla, *Enumerative properties of the Fibonacci lattices.*

LaGrassa, Susan, *Semirings: Ideals and polynomials.*

Mullins, Bernadette, *Finiteness theorems for factorization in integral domains.*

Oktac, Asuman, *Semigroups whose subsemigroups are left congruence classes.*

Olesen, Martin, *Continuous fields of C^*-algebras with application to quantum physics.*

Trautwein, Aaron, *Harmonic knots.*

Xiao, Yufei, *On rings some of whose quotients are flat.*

Zhou, Zhengping, *Correspondence theorems and modules inducing category equivalences.*

Zurlo, Luis, *Mackey completions and measures.*

STATISTICS AND ACTUARIAL SCIENCE

Lu, Hsiao-Chuan, *On the distributions of the sample covariogram and semivariogram and their use in testing for isotropy.*

Oh, Myongsik, *Statistical tests concerning a set of multinomial parameters under order restrictions: Approximations to null hypotheses distributions.*

Tsimikas, John, *State space methods in longitudinal data analysis.*

Yue, Huibin, *Gibbs sampling and correlated survival data.*

KANSAS

Kansas State University (3)

MATHEMATICS

Lee, Mi-Aeng, *A pushing up theorem for SL(2,R) and SL(2,C): An application of the amalgam method.*

Sayyar, Hassan, *Brownian motion and a Nagel and Stein criteria.*

Youvaraj, Gummidigampatti Perum, *Kolmogorov's rearrangement problem with respect to some summability methods.*

University of Kansas (1)

MATHEMATICS

Zane, Omar, *Stochastic adaptive control and its applications to the theory of finance.*

Wichita State University (1)

MATHEMATICS

Najafi, Mahmoud, *Energy decay estimates and stabilizability for wave equations in bounded domains coupled in parallel.*

KENTUCKY

University of Kentucky (4)

MATHEMATICS

Brooks, Clayton, *Homotopy theory of modules.*

Cyrus, Vivian, *The category of monoids.*

STATISTICS

Jin, Jianqing (James), *Robust estimation for AR(1) process with missing data.*

Smith, Brian, *Compositional data analysis using Liouville distributions and their generalities.*

LOUISIANA

Louisiana State University (7)

MATHEMATICS

Dobson, Edward, *Some problems in algebraic and extremal graph theory.*

Edie, Richard, *Generalization of the optimal control problem for the Vidale-Wolfe advertising model.*

Kim, Mihi, *Abstract Volterra equations.*

Kingan, Sandra, *Structural results for matroids.*

Knuckles, Craig, *Continuously differentiable selections and parametrizations of multifunctions in one dimension.*

Paris, Stephen P., *Link theory: Applications to real algebraic curves.*

Wu, Haidong, *Connectivity for matroids and graphs.*

University of Southwestern Louisiana (6)

MATHEMATICS

Nip, Kit Keung, *Quenching for semilinear initial-boundary value problems.*

Reeves, Kevin J., *Sets determining group topologies.*

Stutson, Donna Sue, *Stability in terms of two measures and generalized quasilinearization for nonlinear differential equations.*

STATISTICS

Chang, Ching-Hui, *Risk performance and model robustness of some shrinkage estimators.*

Jordan, Scott, *Interval estimation and hypothesis testing of the common mean of several normal populations.*

Ling, Chiahua, *Some results on normal scale parameter estimation.*

MARYLAND

Johns Hopkins University (3)

MATHEMATICAL SCIENCES

Wang, Tao, *Interior point algorithms for constrained systems of equations.*

MATHEMATICS

Feng, Zuming, *An upper bound for the rank of elliptic curves.*

Kida, Masanari, *Arithmetic of abelian varieties under field extensions.*

University of Maryland, Baltimore County (3)

MATHEMATICS AND STATISTICS

Baron, Michael, *Confidence estimation in the change-point problem.*

Wu, Zhong, *Some contributions to parametric estimation using a ranked set sample.*

Zha, Wenxing, *Confidence regions in multivariate calibration.*

University of Maryland, College Park (18)

MATHEMATICS

Black, Elena V., *Arithmetic lifting of Galois extensions.*

Cheah, Sin-Chnuah, *Malfunctions for sheaves of holomorphic functions with growth conditions.*

Dichman, Donald James, *Hamiltonian dynamics of an elastical and the stability of solitary waves.*

Guijarro, Luis, *Rigidity in open manifolds with nonnegative curvature.*

Hayakawa, Yoshiko, *Degeneration of Calabi-Yau manifold with Weil-Petersson metric.*

Jiang, Xun, *Numerical approximation of a phase relaxation model.*

Liu, Kang-Man, *Dimensional reduction for problems of vibrating solids.*

Liu, Ning, *Decomposition theorems for standard processes.*

Melenk, Jens Markus, *On generalized finite element methods.*

Naiman, Aaron E., *Computer solution of finite element linear systems.*

Narasimhan, Revathi, *Robustness of some mixed finite element methods.*

Nickerson, James, *The homology of noncommutative polynomial algebras over valuation domains.*

Sahin, Ayse, *Tiling representations of R^2 actions and alpha-equivalence in two dimensions.*

Santos, Felix Christian Guimaraes, *Numerical analysis of finite element solutions of parametrized nonlinear partial differential equations.*

Shvartsman, Mikhail, *Phase boundaries in anisotropic elastic materials.*

Tzavelas, George, *Parameter estimator: Quasi-likelihood, generalized linear models, semiparametric models and exponential families.*

Vilarrubi, Roberto, *Large deviations results for some stochastic partial differential equations.*

Zimmermann, Georg, *Projective multiresolution analysis and generalized sampling.*

MASSACHUSETTS

Boston University (4)

MATHEMATICS

Fagella, Nuria, *The complex standard family.*

Jones, Charles, *Problems in nonparametric estimation of density and measurement error regression models.*

Kasman, Alexander, *Rank R KP solutions with singular rational spectral curves.*

Nirenberg, Marc, *Cuspidal divisor groups, ordinary modular forms and p-adic L-functions.*

Brandeis University (5)

MATHEMATICS

Guan, Guo-qiang, *Trace quotient modules over hereditary algebras.*

Kaminsky, Szczesny, *Geometric construction of characters.*

Lu, Zhouwen, *Poisson structures on coadjoint orbits and a convexity theorem of moment maps on weak symplectic manifolds.*

Mederer, Kurt, *Moduli of G-equivariant vector bundles.*

Talamanca, Valerio, *Height preserving transformations on linear spaces.*

Harvard University (18)

APPLIED SCIENCES

Christensen, Jon M., *Managing design complexity: Using stochastic optimization in the production of computer science.*

Daniels, Karen M, *Containment algorithms for nonconvex polygons with application to layout.*

Kehler, Andrew W., *Interpreting cohesive forms in the context of discourse inference.*

Kosowsky, Jeffrey J., *Flows suspending interative algorithms.*

Lochbaum, Karen E., *Using collaborative plans to model the intentional structure of discourse.*

Roth, Dan, *Learning in order to reason.*

MATHEMATICS

Angehrn, Eugen Urban, *An effective polynomial bound for base point freeness and point separation of adjoint bundles.*

Costes, Constantine, *Some explicit cocycles for cohomology classes of groups of diffeomorphisms preserving a G-structure.*

Durenard, Eugene A., *A Mayer-Vietoris principle for monopoles.*

Grabiner, David, *Walks and representation theory.*

Ng, Kok Onn, *The moduli space of* (3, 3, 3) *trilinear forms.*

Rains, Eric M., *Topics in probability on compact Lie groups.*

Ruan, Wei-Dong, *On the convergence of Kähler metrics.*

Shahrouz, Henri, *The Grothendieck quot scheme and composition laws for Grassmannians.*

Su, Francis Edward, *Methods for quantifying rates of convergence for random walks on groups.*

Verbitsky, Misha, *Cohomology of compact hyperkaehler manifolds.*

STATISTICS

Chen, Xianghui, *Weighted sampling, statistical applications and generalizations.*

Everson, Philip, *Inference for multivariate normal hierarchical models.*

Massachusetts Institute of Technology (30)

MATHEMATICS

Braden, Tom, *Characteristic cycles of toric varieties; perverse sheaves on rank stratifications.*

Celentano, Carlos, *Finite amplitude resonant acoustic waves without shocks.*

Chan, Wendy, *Invariant theoretical applications of supersymmetric algebra.*

Chow, Timothy, *Symmetric function generalizations of graph polynomials.*

Fan, Chenteh, *A Hecke algebra quotient and properties of commutative elements of a Weyl group.*

Hawrylycz, Michael, *Geometric identities in invariant theory.*

Kaledin, Dmitry, *Singular hyperkäler quotients.*

Klugerman, Michael, *Small-depth counting networks and related topics.*

Lam, Tao Kai, *B and D analogues of stable Schubert polynomials and related insertion algorithms.*

Ma, Yuan, *Fault-tolerant sorting networks.*

Monta, Peter, *Signal processing for high-definition television.*

Quinn, Malcolm, *A new completely integrable system on the symmetric periodic Toda lattice phase space.*

Saias, Alain, *Randomness versus nondeterminism in distributed computing.*

Sher, Joshua, *The geometry of the generic line complex.*

Shipley, Brooke, *Convergence of the homology spectral sequence of a cosimplicial space.*

Sidney, Raymond, *Digital signatures from probabilistically checkable proofs.*

Spielman, Daniel, *Computationally efficient error-correcting codes and holographic proofs.*

Tesler, Glenn, *Semi-primary lattices and tableau algorithms.*

Wang, Weiqiang, *Representations of vertex operator algebras and superalgebras.*

Watanabe, Shinya, *Nonlinear dynamics of one-dimensional Josephson junction arrays.*

Wong, Siman, *On the Selmer groups of elliptic curves in quadratic twist families.*

Yin, Yiqun, *Teaching, learning, and exploration.*

OPERATIONS RESEARCH

Chi, Zhihang, *Airline yield management in a dynamic network environment.*

Milner, Joseph, *Dynamic slot allocation with airline participation.*

Mourtzinou, Georgia, *An axiomatic approach to queueing systems.*

Nino-Mora, Jose, *Optimal resource allocation in a dynamic stochastic environment: A mathematical programming approach.*

Raghavan, S., *Formulations and algorithms for network design problems with connectivity requirements.*

Ramakrishnan, V. S., *On cuts and clutters.*

Ricard, Michael, *Optimization of queueing networks: An optimal control approach.*

Theodosopoulos, Theodore, *Stochastic models for global optimization.*

Northeastern University (2)

MATHEMATICS

Yang, Rixin, *Bifunctor theory and representation theory of algebras.*

Zafar, Omid, *Some necessary and sufficient conditions for sequence of integers to be a score sequence of a Steinhaus tournament.*

Tufts University (1)

MATHEMATICS

Shao, Yongzhao, *Spacings and likelihood.*

University of Massachusetts, Amherst (6)

MATHEMATICS AND STATISTICS

Kotler, Mitchell, *Some theorems on ergodicity conditions for multi-dimensional Markov chains with applications.*

Li, Yu Ping, *Statistical inference for time series with nonuniformly spaced observations.*

Miller, Patrick, *Stability of travelling waves for a three-component reaction-diffusion system.*

Thayer, Edward, *Complete minimal surfaces in Euclidean space.*

Wiedie, Ann, *Problems in accounting for measurement error in the dependent variable in a general linear model.*

Zhang, Luping, *Quasiperiodic and almost periodic solutions for forced nonlinear second order conservative systems.*

MICHIGAN

Michigan State University (8)

MATHEMATICS

Bang, Keumseong, *Riemannian geometry of vector bundles.*

Jovovic, Mirjana, *Hankel operators on harmonic Bergman spaces.*

Lee, Changwoo, *On the domination number of a digraph.*

Nicolaescu, Liviu, *The spectral flow, the Maslov index and decompositions of manifolds.*

Ozan, Yildiray, *Algebraic G-bundles.*

Shelburne, Peter, *Low dimensional formal fibers in characteristic p.*

Yi, Heung Su, *Harmonic Bergman functions on half-spaces.*

STATISTICS AND PROBABILITY

Gawarecki, Leszek, *Anticipative stochastic calculus, kinematics of stochastic motion in Hilbert space and time reversal problem.*

University of Michigan, Ann Arbor (43)

BIOSTATISTICS

Chao, Chiangsun, *A comparison of models including possibility of cure for survival data.*

Green, Paul E., *Bayesian estimation of rates using a hierarchical log-linear model.*

Liang, Wen-min, *A test for treatment effects in a clinical trial when the probability of being a dropout is affected by the outcome.*

Park, Pil S., *Errors of misclassification in discriminant analysis.*

Schultz, Lonni, *Delayed observation covariates in a survival model.*

Shyr, Yu, *Some aspects of canonical correlations analysis.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Abillama, Walid, *Optimal production policies in production systems with uncertainties.*

Benhajla, Saida, *A neural network decision model for managing product mix.*

Black-Nembhard, Harriet, *A transient period control methodology for continuous mix manufacturing.*

Hadj-Alouane, Atidel, *A genetic algorithm for nonlinear integer programs.*

Hwang, Juhwen, *Production policy for systems with uncertain capacity and demand.*

Kim, Jonghwa, *Transfer batch sizing in trip-based material handling systems.*

Ledersnaider, David, *A sequential methodology for response surface estimation.*

Liaw, Ching-Fang, *Heuristic search and its transit applications.*

Majeske, Karl, *Interpreting automobile warranty data for engineering design and process movement.*

Nembhard, David, *Heuristic path selection in graphs with non-order preserving reward structure.*

Takriti, Samer, *Stochastic programs with dynamically varying right-hand sides.*

Wang, Chi-Yueh, *The use of statistical quality improvement methods in automotive body manufacturing: Three research topics.*

Wang, Wei-Ching, *Detection of process change with non-geometric failure time distribution.*

Wunderlich, Karl, *Link-time prediction for real-time anticipatory route guidance in vehicular traffic networks.*

Yi, Tongnyoul, *Bipartite matchings with specified values for a 0-1 linear function.*

MATHEMATICS

Buzzard, Gregery T., *Persistent homoclinic tangencies and infinitely many sinks for automorphisms of C^2.*

Chang, Yaotsu, *Imprimitive symmetric rank 4 association schemes.*

Chen, Jing, *Relativistic conservation laws.*

Doyle, David R., *Error bounds for finite-difference approximations for certain nonlinear parabolic systems in the quarter-plane.*

Eisworth, Erick Todd, *Contributions to the theory of proper forcing.*

Ferry, Audrey P., *Topological characterizations for logic programming semantics.*

Frey, Darrin D., *Conjugacy of alternating groups of degree 5 and SL(2, 5) subgroups of the complex Lie group of type E8.*

Headley, Patrick T., *Reduced expressions in infinite coxeter groups.*

Kan, SuJen, *The global Burns-Epstein invariant and Grauert tubes.*

Katzman, Mordechai, *Some finiteness properties of the Frobenius endomorphism and their applications to tight closure.*

Miller, Judith R., *Asymptotic stability of solitary waves for the regularized long wave equation.*

Miller-Van Wieren, Leila, *Univalence criteria for analytic functions.*

Moon, Myoung-Ho, *An extension of a theorem of Griffiths to 3-manifold groups.*

Pambuccian, Victoria, *Proper holomorphic mappings.*

Pehlivanian, Charles Ara, *Minimality and perturbations of CR manifolds.*

Shaw, Douglas J., *A non-associative approach to the finite projective plane conjecture.*

Stephenson, Darin R., *Artin-Schelter regular algebras of global dimension three.*

Teo, Kok-Ming, *Homological properties of fully bounded Neotherian rings and Sklyanin algebras.*

Thurman, Robert E., *Extremal problems for logarithmic capacity and extremal length.*

Wuchter, Gerald J., *Polynomial hulls of subsets of the two torus.*

Yiparaki, Olga, *On some tree partitions.*

STATISTICS

Lai, Shou-Ren, *Bayesian nonparametric survival analysis for finite populations.*

Wayne State University (3)

MATHEMATICS

Dakka, Imad, *Optimization of differential inclusion problems with delay.*

Su, Xiang-Ying, *Subgraphs of graphs and digraphs.*

Wu, Ying, *A new estimate using double splines.*

Western Michigan University (8)

MATHEMATICS AND STATISTICS

Chang, William, *High breakdown rank-based estimates.*

Cong, Fan, *Semi-strongly regular graphs and generalized cages.*

McKnight, Scott, *A bootstrap method to analyze an intervention model with autoregressive error terms.*

Rashidi, Reza, *the theory and applications of stratified graphs with applications.*

Schultz, Kelly Lynne, *Step domination in graphs.*

Tesar, Ester, *Probability polynomials for cubic graphs in the framework of random topological graph theory.*

Xie, Feipeng, *Asymptotic diagonalizations of a linear ordinary differential system.*

Yue, Quan, *Efficient dominating sets in oriented trees.*

MINNESOTA

University of Minnesota, Minneapolis (25)

BIOSTATISTICS

Chan, Ivan Siu Fung, *Test of mutual independence in high dimensional sparse contingency tables.*

Dain, Bradley, *Methods of estimation in parametric models for interval-censored survival data.*

Darif, Mohamed, *Parameter estimates in the logistic regression with covariates measured with errors.*

Ireland, Marjorie, *Logistic regression with missing covariate data.*

MATHEMATICS

Cabanela, Rosa, *The retrograde solutions of the planar three body problem in the neighborhood of the restricted problem via a submanifold convex to the flow.*

Ellman, Michael, *Analysis of integrals arising as local factors of L-functions.*

Gau, Huiing, *Numerical methods for conservation laws of mixed type.*

Hakimhashemi, Mehdi, *Functors of the category of spaces and homology.*

Huang, Chaocheng, *Homogenization methods in partial differential equations and modeling multiphase materials.*

Jones, Philip, *Asymptotic potentials for simulated annealing.*

Lapic, Stephan, *On the first-initial boundary value problem for stochastic partial differential equations.*

Li, Changchun, *Motivic classes in crystalline cohomolgy.*

Moniri, Mojtaba, *Models of open induction and generalized power series.*

Nichols, Preston, *Minimizing p-harmonic maps into projective space.*

Ren, Xiaofeng, *A singular perturbation problem and its peaking solutions.*

Shao, Zhoude, *Inertial manifolds for partly dissipative reaction diffusion equations in higher space dimensions.*

Srinivasan, Gopala, *WTC expansions and Painleve analysis.*

Tabacman, Eduardo, *Variational computation of homoclinic orbits for twist maps.*

Wei, Juncheng, *Qualitative properties of some semilinear elliptic equations.*

Yun, Jie, *Homogenization of a two-region model for the spontaneous combustion of coal stockpiles.*

STATISTICS

Croos-Dabrera, Rodney, *Graphical methods for studying curvature in regression.*

Deppa, Brant, *Optimal designs for smoothing.*

Papandonatos, George, *Interim analysis of regression models with possible censoring.*

Park, Chongsun, *Topics in generalized linear models.*

Secchi, Piercesare, *Problems in two person, zero sum stochastic games.*

MISSISSIPPI

University of Mississippi (2)

MATHEMATICS

Hurst, Fair Barbour, *Ramsey and extremal theory for matroids.*

Wingard, George Clifton, *Properties and applications of the Fibonacci polynomial of a graph.*

University of Southern Mississippi (1)

MATHEMATICAL SCIENCES

Wild, Michael Martin, *Modeling long, continuous wave, acoustic signals scattering from the ocean surface.*

MISSOURI

Saint Louis University (1)

MATHEMATICS AND COMPUTER SCIENCE

Stephanus,Mary C., *Orientation-reversing Z_2-actions on handlebodies.*

University of Missouri, Columbia (1)

STATISTICS

Lee, Hyungseok, *Markov chain Monte-Carlo methods for estimating multi-dimensional ability in item response analysis.*

Washington University (13)

MATHEMATICS

Fu, Siqi, *Geometry of bounded domains and behavior of invariant metrics.*

Huang, Xiaojun, *Geometric analysis in several complex variables.*

Liu, Li, *Structures of NY-groups and SNY-groups.*

Shen, Youfeng, *Harmonic analysis on the tree relating to Green's operator.*

Wang, Xihua, *The study of wavelets from the properties of their Fourier transforms.*

Xian, Hong, *Studies of geometric models of composition operators.*

SYSTEMS SCIENCE AND MATHEMATICS

De, Prasanta, *Closed form optimal synthesis and general analysis of manipulator trajectories for real-time control.*

Guo, Chuanfan, *Flexible robot control with periodic feedback and sampled output.*

Hu, Ning, *Multi-p processes: Iterative algorithms and pre-conditionings for the p-version of finite element analysis.*

Jankovic, Miroslava, *A geometric analysis of bang-bang trajectories in the boundary of the small time reachable set for nondegenerate 5 dimensional systems.*

Loucks, Edward, *A perspective systems approach to parameter identification problems in machine vision.*

Suzuki, Sadanori, *H-infinity control of nonlinear systems with sampled measurement.*

Zhou, Jing, *New methods in image processing: Segmentation, feature extraction and matching.*

MONTANA

Montana State University (5)

MATHEMATICAL SCIENCES

Buhl, David, *Student teaching: Opportunities for observing, experimenting with, and implementing assessment practices recommended by the NCTM standards documents.*

Carlson, Timothy, *A sinc-collocation method for Burgers' equation.*

Hoar, Robert, *An adaptive stencil finite difference method for first order linear hyperbolic systems.*

Oman, Mary, *Iterative methods for total variation based image reconstruction.*

Sanford, Michael, *Extensions of Cantor set maps to disk homeomorphisms.*

University of Montana (4)

MATHEMATICAL SCIENCES

Hawkins, Debbre Sue, *Categories of additives, fractions and localization for rings and categories of R-modules.*

Keck, Andrew Gareth, *A local model for dendritic solidification.*

Steele, Brian Margulies, *Estimation in generalized linear mixed models via EM algorithm.*

Zhong, Ninghui, *Submodularity, min-max results and total dual integrality of combinatorial optimization problems.*

NEBRASKA

University of Nebraska-Lincoln (8)

MATHEMATICS AND STATISTICS

Arora, Vipin, *Empirical and hierarchical Bayes estimation in finite population sampling with application to small area estimation.*

Cimen, Nuri, *One dimensional rings of finite Cohen-Macaulay type.*

Holay, Sandeep, *Generators and resolutions of ideals defining certain surfaces in projective space.*

Huffman, Timothy, *An analytic Yeh-Feynman-Fourier transform and convolution.*

Jajcay, Robert, *Vertex-transitive graphs and maps and their automorphism groups.*

Kilibarda, Vesna, *On the algebra of semigroup diagrams.*

Li, Aihua, *Partially ordered sets of prime ideals and prime filtrations of finitely generated modules.*

Pfabe, Kristin Anne, *A problem in nonlinear ion transport.*

NEW HAMPSHIRE

Dartmouth College (2)

MATHEMATICS

Peterson, Annalisa, *Forcing below $\emptyset'$-jump in models of Σ_1.*

Rajpal, Sanjay, *On paving matroids representable over finite fields.*

University of New Hampshire (4)

MATHEMATICS

Bochert, Mark Lloyd, *Extensions of bialgebras and their cohomological description.*

Kilic-Bahi, Semra, *On the Berezin symbol.*

McHugh, Michael James, *Orbit-reflexivity.*

Narang, Deborah, *Reflexive subspaces and lattices of pairs of projectives.*

NEW JERSEY

Princeton University (13)

APPLIED AND COMPUTATIONAL MATHEMATICS

Bronski, Jared, *Aspects of randomness in nonlinear wave propagation.*

Chekhlov, Alexey, *Studies of forced-dissipative turbulence in model hydrodynamics.*

McLaughlin, Richard, *Turbulent transport.*

Shouraboura, Nadia, *Algorithms for 3D space tetrahedralization: An experimental study.*

MATHEMATICS

Andreotti, Alejandro C., *The weighted Bergman kernel in a strictly pseudoconvex domain.*

Hsu, Timothy M., *Quilts, T-systems, and the combinatorics of Fuchsian groups.*

Jakobson, Dmitry, *Quantum limits on flat tori and on $PSL_2(\mathbb{Z})/PSL_2(\mathbb{R})$.*

Jarvis, Tyler J., *Compactification of the moduli space of generalized spin curves.*

Keel, Markus, *The critical power Yang-Mills-Higgs equations.*

McCann, Robert John, *A convexity theory for interacting gases and equilibrium crystals.*

Tanton, James Stuart, *On the homology of general linear groups over field extensions.*

Vasiv, Adrian, *Integral canonical models for Shimura varieties of Hodge type.*

Zaharescu, Alexandru, *Quadratic diophantine inequalities.*

Rutgers University (30)

MATHEMATICS

Altinel, Ahmet Tuna, *Groups of finite Morley rank with strongly embedded subgroups.*

Alvarez, Juan Carlos, *The symplectic geometry of spaces of geodesics.*

Corso, Alberto, *Blowups of links of irreducible varieties.*

Fairman, Randall S., *p-subnormal subgroups of finite simple subgroups.*

Fundia, Andres Daniel, *Random algorithms, derandomization and independent sets.*

Gao, Wenyun, *Elliptic curves attaining everywhere good reduction over abelian extensions.*

Giacomin, Giambattista, *Interacting particle models for phase segregation and motion of interfaces.*

Guo, Hong, *On abelian intertwining algebras and their modules.*

Huang, Ying, *A nonlinear operator related to refinable functions.*

Kayll, Peter Mark, *Asymptotically good covers in hypergraphs.*

Koplon, Renee Beth, *Linear systems with constrained outputs and transitions.*

Morey, Susan Elaine, *The equations of Rees algebras of low codimension.*

Polini, Claudia, *Studies on singularities.*

Sanderson, Yasmine B., *On characters of Demazure modules.*

Sanje Mpacko, Guillaume Donat, *Bernstein decomposition and types for smooth representations of SL_N (F), N prime.*

Sharp, James Dimitri, *The structure of the subgroup lattice of the symmetric group on the natural numbers.*

Smyth, Robert William, *Characterization of Lorentz surfaces via the conformal boundary.*

Trimble, Todd Hampton, *Linear logic, bimodules, and full coherence for autonomous categories.*

Vaz Pinto, Maria Telo, *Structure of Sally modules and Hilbert functions.*

Webb, David Winfield, *A uniform upper bound for the modulus of the Cesaro-Laguerre kernel of a given nonnegative order.*

Xie, Jaihai, *Restriction of discrete series for real reductive groups to certain subgroups.*

OPERATIONS RESEARCH

Li, Wen-Zhong, *Dual method and bounding for stochastic programs with applications in activity networks.*

Long, Jianmin, *Some new probability bounds and their applications.*

Maio, Jianming, *Topics in matrix theory and optimization.*

STATISTICS

Berger, Vance, *Testing for stochastic order in contingency tables.*

Choi, Daiwoo, *On the latent trait model with items of equal difficulty.*

Kim, Yongman, *On resampling based inference.*

Li, Xin, *Estimation in linear regression models with doubly censored data.*

Luz, Beatriz, *Constrained M-estimation for linear regression models.*

Rogers, Christopher, *Peeking at data hypothesis testing and exploration data analysis.*

Stevens Institute of Technology (3)

MATHEMATICAL SCIENCES

Curtis, Debra V., *Picard-Fuchs differential equations for the quadratic periods of Abelian integrals of the first kind.*

Matagrano, Anthony, *Generalization of the classic birthday problem from probability theory.*

Saccoman, John Thomas, *Some synthesis results in network reliability theory.*

NEW MEXICO

University of New Mexico (7)

MATHEMATICS AND STATISTICS

Epler, William C., *Bayes, empirical Bayes and accelerated life testing.*

Gutierrez, Miguel, *Random perturbations of dynamical systems: Stochastic averaging results and limit theorems on $(0, \infty)$ intervals.*

Kindilien, Peter John, *Numerical computation of invariant curves and invariant tori of systems of ordinary differential equations.*

Price, Andrew, *The type-N twisting equations as involutive exterior differential system.*

Sanders, Margaret Lind, *Analysis of spatial cluster processes: Applications in cell biology.*

Wang, Yao, *Partial prior information and hierarchical Bayes.*

Waters, Arlon J., *Breakup theory and computation for three-body scattering with the Chandler-Gibson equations.*

NEW YORK

CUNY, Graduate Center (9)

MATHEMATICS

Barbano, Paolo, *Automorphisms and quasiconformal mappings of Heisenberg-type groups.*

Bednarchak, Debe, *Heat diffusion on graphs.*

Goldstone, Richard, *Geometric realization of homotopy systems.*

Helm, Martin, *On Sidon sets and related topics in additive number theory.*

Lakic, Nikola, *On the geometry of Teichmüller space.*

Mannucci, Mirco Antonio, *Categorical semantics of modal doctrines.*

Schneider, Elizabeth, *Invariants of 1-relator groups and residual properties of amalgamated products.*

Skurnick, Ronald, *Integer sequences associated with trees.*

Vulis, Dimitri, *Collective encryption: Cryptosystems based on the commutator collection process for certain free products.*

Clarkson University (2)

MATHEMATICS AND COMPUTER SCIENCE

Burtsev, Sergei, *The novel integrable equations of nonlinear optics and inverse scattering transforms.*

Kang, Yimin, *Analysis and applications of combined numerical methods for systems of differential equations.*

Columbia University (10)

MATHEMATICS

Cuccagna, Scipio, *On Sobolev estimates for fractional and singular Radon transforms.*

Guo, Jiandong, *On the generalization of a Waldspurger's result.*

Ilic, Bozidar, *Geometric properties of the double point divisor.*

Kalfagianni, Efstratia, *Finite type invariants for knots in 3-manifolds.*

Lim, Yuhan, *Computation of Donaldson invariants for elliptic surfaces of geometric genus 1.*

Meng, Jianyun, *Effective bound on summation of Green's function.*

Mikkelsen, Per, *Effective bounds for the degree of integral points on plane arithmetic surfaces.*

STATISTICS

Gu, Xiai-Fend, *Asymptotic properties of the estimator for the two-sample problem with truncated data.*

Kou, Shing-Gang (Steven), *On the pricing of contingent claims under constraints.*

Pikovsky, Igor, *Anticipative stochastic control in finance.*

Cornell University (23)

APPLIED MATHEMATICS

Liu, Jianguo, *Interior and exterior Newton methods for large-scale quadratic programming.*

Manning, Robert Scott, *Semiclassical propagation for non-Cartesian variables.*

Saints, Keith, *Algebraic methods for the encoding and decoding problems for multidimensional cyclic codes and algebraic-geometric codes.*

Wise, Theresa Hull, *Column generation and polyhedral combinatorics for airline crew.*

de Loera, Jesus Antonio, *Triangulations of polytopes and computational algebra.*

BIOMETRICS

Hobert, James Patrick, *Occurrences and consequences of nonpositive Markov chains in Gibbs sampling.*

Lynn, Henry Sui-Heng, *Comparing maximum likelihood ordination with principal components analysis and correspondence analysis.*

MATHEMATICS

Coykendall, James Barker, *Normsets and rings and algebraic integers.*

Dalbec, John, *Geometry and combinatorics of Chow forms.*

Kalies, William David, *Regularized models of phase transformation in one-dimensional nonlinear elasticity.*

Lee, Susan, *Optimal drift on the unit interval.*

Liu, Niandong, *Algebraic and combinatorial methods for face enumeration in polytopes.*

Luo, Jiaqi, *Combinatorics and holomorphic dynamics: Captures, matings, Newton's method.*

Schleicher, Dierk, *Internal addresses in the Mandelbrot set and irreducibility of polynomials.*

OPERATIONS RESEARCH

Carr, Stuart, *A partial make-to-order production-inventory strategy for industrial manufacturers.*

Chance, Beth Lynn-Nyerges, *Behavior characterization and estimation for general hierarchical multivariate linear regression models.*

Magnusson, Sverker, *Cutting stock problems: Theory and practice.*

Ralphs, Theodore, *Parallel branch and cut for vehicle routing.*

Thomas, Rekha Rachel, *Grobner basis methods for integer programming.*

STATISTICS

Hobert, James, *Occurrences and consequences of nonpositive Markov chains in Gibbs sampling.*

Lynn, Henry Sui Heng, *Comparing maximum likelihood ordination with principal components analysis for equicorrelated data.*

Tsao, Chen-Hai, *Confidence estimation and conditional inference for Fieller's sets.*

Tseng, Yu-Ling, *Good exact confidence sets and minimax estimators for the mean vector of a multivariate normal distribution.*

New York University, Courant Institute (19)

MATHEMATICS

Ceniceros, Angelo Hector, *Convergence of a reformulated boundary integral method for two fluid interfaces with surface tension.*

Davis, Geoffrey, *Adaptive non-linear approximations.*

Emerson, Thomas, *Computation over abstract ordered rings: Rings of computable functions, NP-completeness, and relativized complexity classes.*

Engelberg, Shlomo, *On the stability of certain classes of solutions of the Burgers' equation with higher order viscosity.*

Fibich, Gadi, *Self-focusing in the nonlinear Schrödinger equation for ultrashort laser-tissue interactions.*

Grabovsky, Yury, *Bounds of extremal microstructures with two-component composites: A unified treatment based on the translation method.*

Howard, C. Douglas, *The orthogonality of measures induced by random walks with scenery.*

Komorowski, Tomasz, *Limit theorems for motion in random fields.*

Lee, June-Yub, *Adaptive numerical methods for singular perturbation problems in one space dimension.*

McLaughlin, Kenneth, *A continuum limit of the Toda lattice.*

Psarelli, Maria, *Asymptotic behavior of the solutions of Maxwell, Klein-Gordon field equations in 4-dimensional Minkowski space.*

Qiu, Longdong, *Gravitational collapse of the spherically symmetric charged dust.*

Rosar, Madeleine, *A three-dimensional computer model for fluid flow through a collapsible tube.*

Sarkis, Marcus, *Schwartz preconditioners for elliptic problems with discontinuous coefficients using conforming and nonconforming elements.*

Sethuramah, Sunder, *Limit theorems and estimates for interfacing particle systems.*

Tehrani, Hossein, *On some semilinear elliptic boundary value problems.*

Venkatsubramani, Ramesh, *Hydrodynamic limit for the asymmetric exclusion process with deterministic initial data and the Hammersley process of $S(1)$.*

Volchan, Sergio, *Some survival results for one-dimensional contact process in a random environment.*

Young, Robert, *Approximate equilibrium and local stability of the Earth's magnetotail.*

New York University (2)

STATISTICS AND OPERATIONS RESEARCH

Alevras, Dimitris, *Essays on combinatorial optimization.*

Krishnasamy, Ilangkovan, *Statistical modelling of the sleep hypnogram and an analysis of sufficient statistics for grouped data.*

Rensselaer Polytechnic Institute (10)

MATHEMATICAL SCIENCES

Bongiovanni, Kevin, *Environmental influences on acoustic propagation in the ocean.*

Buckmire, Rondel, *The design of shock-free transonic slender bodies.*

Caprioli, Paul, *Optimizing nonlinear functions on parallel computing machines.*

Doerstling, Brendan, *A 3-D reconstruction algorithm for the linearized inverse boundary value problem for Maxwell's equations.*

Geist, Bruce, *The asymptotic expansion of the eigenvalues of the Timoshenko beam.*

Jardine, Richard, *Non-reflecting boundary conditions for parabolic approximations.*

Labenski, Caroline, *Coils.*

Ng, David, *An incomplete boundary measurement problem in impedance imaging.*

Schmidt, David, *Noneven digraphs, symplectic Paris, and full sign-invertibility.*

Wettergren, Thomas, *Near-integrable dynamics of the Maxwell-Bloch equation.*

SUNY at Albany (6)

MATHEMATICS AND STATISTICS

Cox Paul, Maureen, *The image of the Picard invariant map for Hopf Galois extensions.*

Grossman, Eric J., *The Berezin transform.*

Koch, Alan H., Jr., *Cyclic Dieudonne modules, Witt subgroups, and their lifts to characteristic zero.*

Lacey, Laurie L., *Astral collision and a theorem of Whitehead.*

Rice, John P., *Continuous linear functionals on compact and convex integral families of analytic functions.*

Sheng, Jiaxing, *An entropic Bayesian algorithm for reconstructuring incomplete Poisson data.*

SUNY at Binghamton (7)

MATHEMATICAL SCIENCES

Fischer, Matthew Paul, *Two-groups with a self-centralizing element.*

Garrison, David James, *Subnormality conditions in metabelian groups.*

Harris, David M., *The mapping class group of a rotation domain.*

Krajcevski, Mile Pavle, *Tilings of the plane and hyperbolic groups.*

Lamprecht, Elizabeth Ann, *A Bernoulli one-armed bandit problem involving a changepoint.*

Okun, Boris, *Non-zero degree tangential maps between dual symmetric spaces.*

Raduns, Gary Lee, *Ergodic decompositons and sweeping in Riesz spaces.*

SUNY at Buffalo (6)

MATHEMATICS

Berlind, Roger, *An alternative method of stochastic discrimination with applications to pattern recognition.*

Ni, Yigong, *Dynamic limit of viscoelastic relaxation with a van der Walls type stress.*

Shi, Zhixin, *Precise solution of linear elliptic partial differential equations.*

Shyu, Shih-min, *d-hypoelliptic convolution equations in K'_M.*

Xu, Guangwu, *Multipliers of the algebras $Ap(G)$.*

Zhang, Jianhe, *Existence and global approximation of a homoclinic orbit of the Lorenz equation.*

SUNY at Stony Brook (16)

APPLIED MATHEMATICS AND STATISTICS

Beltran, Hector Fernando, *On some design and cost allocation problems in telecommunications networks.*

Chen, Xiaoan, *Modeling and numerical simulation of microwave heating.*

Chen, Yupin, *Two phase flow analysis of turbulent mixing in the Rayleigh-Taylor instability.*

Holmes, Richard Lansing, *A numerical investigation of the Riehtmyer-Meshkov instability using front tracking.*

Monroe, Susan Lynn, *Optimization of stochastic models for planning reservoir releases.*

Yan, Xiaorong, *A weighted product-limit statistic for survival analysis under left truncation.*

MATHEMATICS

Burton, Renee, *Irreducible tempered representations of the special linear group over a p-adic field.*

Durán-Fernandez, Carlos Eduardo, *On the geodesic flow of Zoll manifolds.*

Jiang, Xinhui, *An index theorem on foliated bundles.*

McRae, Alan Stuart, *Darboux theorems for pairs of submanifolds.*

Moore, Helen, *Minimal submanifolds with various curvature bounds.*

Mrakovcic, Darko, *On encryption of infinitesimal neighborhoods in geometric invariants of cone structures on the space of nearby submanifolds.*

Ontaneda-Portal, Pedro, *Some examples of spaces with non-positively and negatively curved exotic triangulations.*

Reyes, Eduardo, *The deformation spaces of certain subgroups of Kleinian groups.*

Stingley, Robert, *Singularities of maps between n-manifolds.*

Taylor, Edward, *On volumes of convex cores under algebraic and geometric convergence.*

Syracuse University (5)

MATHEMATICS

Hamdan, May, *On the asymptotic values of analytic functions in the unit disk.*

Jagadeeshan, Shashidhar, *Stable Artin algebras.*

Prus-Wisniowska, Ewa, *Cognitive, metacognitive, and social aspects of mathematical proof with respect to calculus.*

Prus-Wisniowska, Franciszek, *General properties of functions of bounded λ-variation.*

Riordan, JeanAnn, *Effect of persistence time on learner achievement.*

University of Rochester (4)

MATHEMATICS

Boyd, Cheri Loretta, *A type number formula for orders of level $p^{2r+1}M$.*

Chang, Chien-Hung, *Martin boundaries and conditional Brownian motions on Denjoy domains in $\mathbb{R}^n$.*

Mao, Binhua, *A BP analog of Lin's Theorem and the realization of $A(n)^*$.*

Sonn, Seonhee Yoon, *Homology of the double loop space of the exceptional Lie groups.*

NORTH CAROLINA

Duke University (3)

MATHEMATICS

Hornung, Richard D., *Adaptive mesh refinement and multi-level iteration techniques.*

Hughen, Walker Keener, *The sub-Riemannian geometry of three-manifolds.*

Moulton, Vincent Lynmore, *Vector braids.*

North Carolina State University, Raleigh (16)

MATHEMATICS

Etheridge, Debra Lynn, *Existence and behavior of solutions of nonlinear discrete-time boundary value problems.*

Lawson, Jeffrey Kent, *Generalized symplectic geometry for classical fields and spinors.*

Pennell, Edwin Adam, *Generalized Bruhat order on reductive monoids.*

OPERATIONS RESEARCH

Kraus, Mark Edward, *A generalized path-following approach to solving semi-infinite linear programming problems.*

Messner, Michael Jay, *Application of decision analysis to a superfund remedial investigation.*

Mishra, Shankaranand, *Tandem queues with general blocking: A maximum entropy optimization approach.*

Rhee, Young, *Analysis of an open tandem queueing network with population constraint and constant service times.*

STATISTICS

Akdi, Yilmaz, *Periodogram analysis for unit roots.*

Belanger, Bruce Albert, *Calibration inference in nonlinear heteroscedastic models with application to bioassay.*

Elsheimer, David Bruce, *Development and adaptations of data-driven nonparametric goodness-of-fit tests for a regression function.*

Gould, William Robert IV, *New developments in catch-effort estimation of important demographic population parameters.*

Hess, George Richard, *Disease in metapopulation models: Implications for conservation.*

Huang, Ju-Chin, *New discrete choice methods for valuing environmental amenities: Theory and evaluation.*

Mesenbrink, Peter Grant, *Model and transformation selection in fractionated experiments with complex aliasing.*

Unal, Cemal, *Reliability improvement with mean and variance modeling for censored data from industrial experiments.*

Wakeford, Charles William, *The use of composite sampling in compliance testing when the underlying probability distribution is continuous.*

University of North Carolina, Chapel Hill (7)

BIOSTATISTICS

DeMasi, Ralph A., *Proportional hazards models for multivariate failure time data with generalized competing risks.*

Lipschutz, Katherine Harris, *Evaluation of methods used to analyze multiple time to failure data.*

Munoz, Sergio, *Group sequential methods for bivariate survival data in clinical trials: A proposed analytic method.*

Ng'andu, Nicholas Hakavuna, *A comparison of test statistics for assessing the proportional hazards assumption of Cox's model.*

Pedroso de Lima, Antonio Carlos, *A semi-parametric matrix-valued counting process model for survival analysis.*

Phillips, James A. III, *A multistage multiple comparison procedure for the analysis of multiple treatment group clinical trials.*

Preisser, John Stephen, *Regression diagnostics and resistant fits for generalized estimating equations.*

OHIO

Air Force Institute of Technology (2)

MATHEMATICS AND STATISTICS

Carter, Martha Alvey, *The mathematics of measuring capabilities of artificial neural networks.*

Fulk, David Allen, *A numerical analysis of smoothed particle hydrodynamics.*

Bowling Green State University (2)

MATHEMATICS AND STATISTICS

Dey, Partha Pratim, *Cartesian groups and incidence matrices.*

VanAken, Troy, *Affine difference sets.*

Case Western Reserve University (1)

MATHEMATICS

Chou, Yonggang, *Some results on bilinear control systems with rank-one inputs.*

Kent State University (4)

MATHEMATICS AND COMPUTER SCIENCE

Davis, Timothy, *Finite element analysis of the Landau-de Gennes minimization problem for liquid crystals in confinement.*

Gonsor, Daniel E., *Some theoretical issues concerning computer aided geometric design.*

Krautstengl, Alan, *Matrix vectorial norms and their application to the Gerschgorin theory for block partitioned matrices.*

Lemma, Mulatu, *Some power series transformations and weighted mean transformations that preserve absolute convergence.*

Ohio State University (14)

MATHEMATICS

Giust, Steve, *Generalized controllability and observability filtrations and the Weddeburn Forney construction.*

Jiang, Dihua, *L-function for the standard tensor product representation of $GSP(2) \times GSP(2)$.*

Lee, Cary, *The descriptive set theory of Borel Abelian reduced p-groups.*

Lee, Yoonweon, *Contributions to regularized determinants of elliptic operators.*

Pinter, Ferenc, *Perturbation of orthoganal polynomials on an arc of the unit circle.*

Shao, You-yu, *Representation theory of quadratic forms.*

Snell, Michael, *An asymptotic series for norms of powers.*

Xu, Mingzhi, *On cohomology groups of global units in $\mathbb{Z}_p^d$-extensions.*

Zhang, Jiaxiang, *Orthogonal polynomials, their relative growth and their applications.*

STATISTICS

Baggs, Marcia Geraldine Edralin, *Properties of order statistics from bivariate exponential distributions.*

Bush, Christopher, *Semi-parametric Bayesian linear models.*

Ho, Yu-Yun, *Diagnostics for heirarchical Bayesian regression.*

Johnson, Jeffrey Alan Draskoci, *A technique for incorporating certain kinds of prior knowledge in a nonparametric analysis.*

Pan, Guohua, *Compare groups with umbrella orderings.*

Ohio University (2)

MATHEMATICS

Ding, Yimin, *Volterra integral equations in Banach spaces.*

Kline, Jeannette, *Statistical convergence and densities generated by sequences of measures.*

University of Cincinnati (5)

MATHEMATICAL SCIENCES

Liu, Yinghui, *Mollification method for 2-D IHCP on bounded domains.*

Meng, Qiuyue, *Robust Bayesian analysis in linear models.*

Ning, Ke, *Statistical analysis of genetic linkage data.*

Yao, Xue, *Smash products and the Connes spectrum of a Hopf algebra action.*

Zheng, Hongcai, *Numerical solution for 3D-IHCP and some related problems.*

University of Toledo (1)

MATHEMATICS

Swami, Prem Kumar, *Some new results in the rapidly forced pendulum.*

OKLAHOMA

Oklahoma State University (3)

MATHEMATICS

Decloss, Robert Ray, *Free extensions of partial I-groups.*

Lorch, John, *Unitary structures for ladder representations of U(p, q).*

STATISTICS

Cho, Tae Kyoung, *Approximate confidence intervals and approximate confidence bands for logistic models.*

University of Oklahoma (3)

MATHEMATICS

Fine, Anne Elizabeth, *An investigation in the use of performance assessment tasks in undergraduate mathematics.*

Moore, Deborah Ann, *A study of metacognitive strategies and organizing tactics in precalculus mathematics.*

Spriestersbach, Karla Kathleen, *The determination of convex bodies from geometric averages of their projections, and associated stability results.*

OREGON

Oregon State University (7)

MATHEMATICS

Danielson, Lynda, *The Galois theory of iterated binomials.*

Nam, Kiwon, *Detecting piecewise linear approximate fibrations.*

Senkyrik, Martin, *A topological approach to dry friction and nonlinear beams.*

Zhang, Qing, *Some tree structure function asymptotics.*

STATISTICS

Lang, Andreas, *An empirical evaluation of parameter approximation methods for phase-type distributions.*

Pratt, James, *The Laplace approximation and inference in generalized linear models with two or more random effects.*

Sjamsoe'oed, Roza, *The use of logistic regression for developing habitat association models.*

Portland State University (1)

MATHEMATICAL SCIENCES

Neil, John R., *Tunnel one generalized satellite knots.*

University of Oregon (10)

MATHEMATICS

Cruz, Robin, *Examples of noncommutative algebraic geometry.*

Desjardins, Sylvie, *Heat content asymptotics.*

Faurot, Donald, *Twisted differential operator rings over projective spaces in positive characteristic.*

Gibson, Cynthia, *Two aspects of knot theory.*

Kim, Gie-whan, *Exact slopes of test statistics for the multivariate exponential family.*

Leen, Michael, *Factorization in the invertible group of a C*-algebra.*

Rodman, Stacey, *New conditions for the freeness of arrangements.*

Tenny, Nathan, *Ball models, free products and splitting surfaces in singular 3-manifolds.*

Wick, Darren, *Generalizations of quasi-hereditary rings and monomial algebras.*

Williams, Michael, *Z(4)-linear Kerdock codes, orthogonal geometries, and non-associative division algebras.*

PENNSYLVANIA

Carnegie Mellon University (3)

MATHEMATICS

Aronson, Jonathan Walter, *Analysis of a randomized greedy matching algorithm.*

Golovaty, Dmitry, *The volume preserving motion by mean curvature as an asymptotic limit of reaction diffusion equations.*

Jayewardene, Romaine Delorine, *Relations and functional relations in categories, with examples from fuzzy set theory.*

Drexel University (1)

MATHEMATICS AND COMPUTER SCIENCE

Kiesel, Harry A., *A study of new classes of orthogonal polynomials.*

Lehigh University (4)

MATHEMATICS

Dodson, Margaret, *Extended Runge-Kutta Monte-Carlo methods.*

Liebars, Cathy S., *Stochastic differentiability in maximum likelihood theory.*

Stolz, Robert, *Radon-Nikodym property and law of large numbers.*

Yang, Huajian, *Stable homotopy types of stunted lens spaces* mod 4.

Pennsylvania State University (16)

MATHEMATICS

Chang, Qing, *Automorphisms of generic 2× 2 matrices.*

Degli-Esposti, Mirko, *Classical and quantum equidistribution: An (easy) example.*

Godev, Kalin, *Mathematical models of liquid crystals with variable degree of orientation.*

Guentner, Erik P., *Relative e-theory quantization and index theory.*

Hundal, Hein S., *Generalizations of Dykstra's algorithm.*

Li, Yi, *Uniqueness and analyticity of solitary waves.*

Luo, Laihan, *Initial- and boundary-value problems for some nonlinear partial differential equations.*

McInerney, Andrew, *On the group of contact diffeomorphisms.*

Piccione, Paolo, *Discrete regular subalgebras of semifinite von Newmann algebras.*

Qin, Jinshui, *On the convergence at some low order mixed finite elements for incompressible fluids.*

Shan, Hwai-Ling, *Denominators in Hilbert's Nullstellensatz.*

Zhong, Jun, *Approximation with inequality constraints.*

STATISTICS

Kang, Hee-Jeong, *Bootstrapping autoregressive processes with infinite variance.*

Ndlovu, Principal, *Statistical designs for calibration using nonlinear models.*

Ozturk, Omer, *Minimum distance estimation.*

Tomick, John, *On convergence of the Nelder-Mead simplex algorithm for unconstrained stochastic optimization.*

Temple University (6)

MATHEMATICS

Culp-Ressler, Wendell E., *Modular forms and integrals.*

Iannucci, Douglas E., *On the third largest prime divisor of an odd perfect number.*

Mohammed, Ahmed, *A modulus of continuity and Harnack's inequality for second order parabolic Schroedinger equations.*

Orr, Craig R., *A computer algebra approach to partial difference equations.*

Yan Yongqian,, *Statistical inference for extreme models with dependence.*

Zhou, Jiazu, *Kinematic formulas and geometric inequalities.*

University of Pennsylvania (12)

MATHEMATICS

Alimohamed, Moez, *A characterization of lambda definability in categorical models of implicit polymorphism.*

Finkelstein, Stacy, *Tau categories and logic programming.*

Ge, Liming, *On maximal injective subalgebras of factors.*

Gu, Weiqing, *The stable 4-dimensional geometry of the real Grassmann manifolds.*

Hansen, Mogens Lemvig, *Unitary norms on Banach algebras.*

Hicks, R. Andrew, *Group actions and the topology of non-negatively curved 4-manifolds.*

Katzarkov, Ludmil, *Factorization theorems for the representations of the fundamental groups of quasiprojective varieties and some applications.*

Kerr, Megan, *Homogeneous Einstein metrics.*

Kwon, Seon-In, *Galois module structure of tame covers.*

STATISTICS

Athaide, Claude Raymond, *Likelihood evaluation and state estimation for nonlinear state space models.*

Love, Thomas Ezra, *Distractors and item response theory.*

Zhang, Hao, *Best tests of treatment effect for matching with multiple controls.*

University of Pittsburgh (8)

MATHEMATICS AND STATISTICS

Hu, Ping, *Error estimates of finite volume methods for steady convection-diffusion equations.*

Lei, Xuming, *Singularities of a sheet metal stretching problem and second order ordinary differential equations.*

Wang, Cunqi, *Discussion on Bäcklund transformations for some nonlinear differential equations.*

Wong, Wing Lit, *The Box-Cox and other transformation families for inference in errors-in-variables regression model.*

Xie, Weiqing, *A mathematical analysis of phase field alloys and transition layers.*

Xue, Lianyong, *Constrained experimental plans.*

Yang, Hefei, *Confirmatory factor analysis and its application to receptor modeling.*

Zhao, Yue, *Statistical inference for degradation models.*

RHODE ISLAND

Brown University (8)

APPLIED MATHEMATICS

Bauer, Robert, *Numerical shock capturing techniques.*

Jiang, Guang-Shan, *Algorithm analysis and efficient computation of conservation laws.*

Quillen, Carl, *Parallel ENO schemes applied to shock/cylinder interactions and numerical methods by radon transform.*

Wong, Peter, *Computational algorithms for discontinuous problems.*

MATHEMATICS

Dutta Gupta, Shamita, *Average value of quadratic twists of L-functions over function field.*

Geloneze-Neto, Antonio, *Cusp parity and generalized Riemann-Hurwitz formulas for simplicial maps.*

Saccone, Scott Frank, *A study of strongly tight uniform algebras.*

She, Xiaotie, *On the nonvanishing of cubic twists of automorphic L-series.*

SOUTH CAROLINA

Clemson University (7)

MATHEMATICAL SCIENCES

Abalo, Kokou Y., *Berge and Nash games: Existence theorems and applications.*

Cawood, Mark E., *Development and stability analysis of algorithms for robust pole assignment of linear multi-input systems.*

Feng, Zhoujun, *A study of local polynomial regression.*

Jones, Walter F., *A numerical analysis of Richard's equation for unsaturated porous media flow.*

Rudolph, Gerald L., *An investigation of the usefulness of detailed scheduling information.*

Stephenson, Paul L., *Control charts for multiple stream processes.*

Wypasek, Christian J., *Stochastic models for workstation utilization.*

University of South Carolina (10)

MATHEMATICS

Beasley, Brian, *The distribution of power-free values of irreducible polynomials.*

Dujmovic, Davorin, *Infinite finitely presentable simple groups: Membership problem, free subgroups.*

Mitrea, Marius, *Clifford algebras in harmonic analysis and elliptic boundary value problems on nonsmooth domains.*

Ouyang, Jianxin, *The Zarankiewicz problem and connectivity of k-chromatic graphs.*

Piatkiewicz, Leszek, *Paracompact spaces in box product topology and the equivalence of some consequences of the proper forcing axiom.*

Sabac, Florin, *Hyperbolic nonlinear conservation laws.*

Wu, Qun, *p-wavelets and their applications.*

Yang, Zesheng, *Wavelets and image compression.*

von Rosenberg, Peter, *Countable and finite migrant covers.*

STATISTICS

McCann, Melinda, *Classical multiple comparisons via Neyman's inequality.*

TENNESSEE

University of Memphis (4)

MATHEMATICAL SCIENCES

Ali, Firasath, *Probability that a random partition is graphical.*

Bartlett, Ronald E., *Discrete computation in the continuum.*

Clapsadle, Raymond A., *Polychromatic structures and substructures in edge colorings of graphs.*

Tang, Si Chin, *General stochastic models of the HIV epidemic.*

University of Tennessee (2)

MATHEMATICS

Henson, Shandelle, *Individual-based physiologically structured population and community models.*

Katsaounis, Theodoros, *On fully discrete Galerkin approximations for the incompressible Navier-Stokes equations.*

Vanderbilt University (3)

MATHEMATICS

Fasshauer, Gregory Eric, *Radial basis functions on spheres.*

Nelson, Amy Lynne (Wildsmith), *Interassociativity of Clifford semigroups and cyclic semigroups.*

Rickert, John Phillip, *On the simple connectivity at infinity of* Out F_4.

TEXAS

Rice University (15)

COMPUTATIONAL AND APPLIED MATHEMATICS

Dadmehr, Shireen, *An efficient simplex-based method for solving large linear programs.*

Gonzalez-Lima, Maria, *Effective computation of the analytic center of the solution set in linear programming using primal-dual interior-point methods.*

Lehoucq, Richard, *Analysis and implementation of an implicitly restarted Arnoldi iteration.*

Minkoff, Susan, *Multiparameter inversion and energy source estimation for a reflection seismic experiment.*

Parr, Victor, *Preconditioner schemes for elliptic saddle-point matrices based upon Jacobi multi-band polynomial matrices.*

Song, Hua, *On a transmission inverse problem.*

MATHEMATICS

Dona, Luca, *Hyperbolic geometry, regular presentations and curves on surfaces.*

Fu, Lei, *On the boundaries of special Lagrangian submanifolds.*

Li, Ming, *Harmonic maps, heat flows and currents on singular spaces.*

Sirotine, Serguei, *Approximation of knots invariants by Vassiliev invariants.*

STATISTICS

Baggerly, Keith Alan, *Visual estimation of structure in ranked data.*

Elliot, Marc Nathan, *An automatic algorithm for the estimation of mode location and numerosity in general multidimensional data.*

McGee, Monnie, *Diversified methods of categorical time series analysis.*

Stivers, David, *Multi-type branching process models of cell proliferation.*

West, Ronnie Webster, *Modeling the potential impact of HIV on the spread of tuberculosis in the United States.*

Southern Methodist University (4)

MATHEMATICS

Woodson, Kenneth Mack Jr., *Projected implicit Runge-Kutta methods for solving differential-algebraic equations.*

STATISTICAL SCIENCES

Fu, Lei, *On the long-memory time series models.*

Miller, James, *Forecasting with fractional differenced time series models.*

Wang, Eugene, *Modified maximum likelihood estimations of generalized gamma distribution.*

Texas A&M University (14)

MATHEMATICS

Chen, Chih-Hsuan, *A finite difference-boundary element scheme for solving parabolic boundary value problems and supercomputing.*

Cupps, Brian Perry, *Global existence and large time behavior of solutions to reaction-diffusion systems with large diffusion coefficients.*

Deng, Yuanhua, *Boundary elements methods for nonlinear elliptic boundary value problems.*

Ding, Zhonghai, *Topics on potential theory on Lipschitz domains and boundary control problems.*

Hendricks, Thomas David, *Existence of hypersurfaces of prescribed mean curvature.*

Ionescu, Adrian, *On pairs of commuting operators.*

McClaran, Lea Beth, *Some results on lattice structures on Banach spaces.*

STATISTICS

Harvill, Jane, *A bispectral-based test for Gaussianity and linearity of a time series.*

Hu, Ying-Sheng, *Wavelet approach to change point detection with application to density estimation.*

Kim, Jaehee, *Test for change in a mean function when the data are dependent.*

Ogden, Todd, *Wavelet thresholding in nonparametric regression with change-point applications.*

Ou, Shyh-Tyan, *Confidence intervals for variance components in mixed linear models.*

Vasquez Rojos, Tito Roque, *Estimation of variance components: An extension to include continuous variables in the fixed effect design matrix and a development of software.*

Wang, Shaohung, *A data-driven smoothing parameter selection for robust nonparametric regression.*

Texas Tech University (7)

MATHEMATICS

Abukhaled, Marwan, *Runge-Kutta and recursive distributive numerical methods for approximate solutions of stochasic differential equations.*

Bian, An-Gwo, *Determination of root-diffusivity during water flow in root-soil systems.*

Dey, Aswini Kumar, *Cross-validation for parameter selection in statistical inverse estimation problems.*

El-Qasas, Majed, *The observability of Burger's equation, the Ricatti equation and the heat equation.*

Lee, Jonathan Todd, *The radius of convexity of parametrized transforms of univalent functions.*

Okasha, Nahed, *Dynamics of boundary controlled convective reaction-diffusion equations.*

Packard, Erik, *The order of a perfect k-shuffle on a moded-out deck.*

University of Houston (3)

MATHEMATICS

Carthel, craig, *Numerical méthods for some exact and approximate controllability problems for the heat equation.*

Martin, Christopher, *A class of quasi-linear reaction-diffusion systems with temperature dependent kinetics.*

Zhang, Chun, *Representation and geometry of operator spaces.*

University of North Texas (4)

MATHEMATICS

Garza, Javier, *Using steepest descent to find energy-minimizing maps satisfying nonlinear constraints.*

Lim, Daekeum, *Cycles and cliques in Steinhaus graphs.*

Olsen, Lars, *Multifractal measures.*

Wang, Jing-Ling, *Topics in fractal geometry.*

University of Texas at Arlington (1)

MATHEMATICS

Davamani, Jeyaraj John, *Convergence of iterative processes arising in the theory of convex sets and convex functions.*

University of Texas, Austin (10)

MATHEMATICS

Boerkoel, Antonie, *Diophantine approximation in local fields by algebraic numbers of bounded degree.*

Buehler, Suejeudi Grayson, *The James function space.*

Chen, Debao, *Cardinal spline wavelets.*

Fabel, Paul Andrew Simon, *Self-homeomorphisms of the 2-sphere which pointwise fix a nonseparating continuum.*

Goodman-Strauss, Chaim, *On composite twisted unknots.*

Hollingsworth, Brooke Lanae Hagood, *Degenerate semilinear parabolic systems and distributed capacitance models.*

Jia, Lia, *On automatic theorem proving in conjugate geometries.*

Li, Shan, *A new approach to sensitivity analysis of the DEA models and their applications to ranking and productivity growth.*

Loepp, Susan Renee, *Making the generic formal fiber local.*

Tyler, Stephanie Michelle, *The LaGrange spectrum in projective space over a local field.*

University of Texas at Dallas (3)

MATHEMATICAL SCIENCES

Crawford, Isom Lawrence Jr., *Multivariable nonlinear system realizaton.*

Hartung, Ferenc, *On classes of functional differential equations with state-dependent delays.*

Lai, Dejian, *Contribution to non-linear time series analysis.*

UTAH

Brigham Young University (2)

MATHEMATICS

Fordham, Stuart Blake, *Minimal length elements of Thompson's group F.*

Shawcroft, Paul Howard, *Algorithmic methods in combinatorial group theory.*

University of Utah (6)

MATHEMATICS

Kovács, Sándor J., *The cone of curves of K3 surfaces and families of varieties of general type.*

Le, Vy K., *On global bifurcation for variational inequalities.*

Ma, Lingyun, *Multinomial change-point problems.*

Mayer, Uwe F., *Gradient flows on nonpositively curved metric spaces.*

Sawicz, Romuald, *Bounds on the effective parameters of composite materials by analytic continuation method.*

Van Kirk, Robert Welsh, *Integrodifference models for biological growth and dispersal.*

Utah State University (1)

MATHEMATICS AND STATISTICS

Cordero-Braña, Olga, *Minimum Hellinger distance estimation for finite mixture models.*

VIRGINIA

George Mason University (2)

OPERATIONS RESEARCH AND ENGINEERING

Fateh, Hossein, *Automatic differentiation for large-scale nonlinear programming.*

Srinivasan, Meena, *Using directions of negative curvature in Newton-type methods for nonlinear nonconvex problems.*

Old Dominion University (5)

MATHEMATICS AND STATISTICS

Khan, Mushtaq A., *Thermal ignition analysis in the laminar boundary layer behind a propagating shock front.*

Panetta, John Carl, *Mathematical models of chemotherapy.*

Toner, Michael, *Invariant manifolds of a toy climate model.*

Vaish, Akhil, *Invariance properties of statistical tests for dependent observations.*

Yang, Sang K., *Elimination of edge effects using spline wavelets which maintain a uniform two-scale relation.*

University of Virginia (17)

APPLIED MATHEMATICS

Avalos, George, *An analysis and regulator theory for the active control of a system of partial differential equations arising in the modelling of smart structures and materials.*

Baxter, Sarah Collins, *Saint-Venant end effects for anti-plane shear deformations of sandwich structures.*

Crow, Philip David, *Power-law creep consolidation of metal matrix composites.*

Hendrickson, Erik S., *Approximation theory for compensator design for partially observed hyperbolic systems with boundary/point control.*

Vaver, Jon Gerald, *Accurate incorporation of self-gravitating N-body components in galactic models; global and intermediate-scale spiral structures.*

MATHEMATICS

Blanchard, Peter, *Exceptional group ring automorphisms and the isomorphism problem.*

Fenster, Della, *Leonard Eugene Dickson and his work in the theory of algebras.*

Geisler, Lyn, *Quantum stability for the quasi-periodic Rabi oscillator.*

Hall, Jacqueline, *Specialty of quadratic Jordan algebras.*

Morics, Steven, *Jack symmetric functions and Young's lattice.*

Shorter, Paula, *Diffusion processes for stochastic global optimization on a manifold with applications in image processing.*

Sontz, Stephen, *L^p mapping properties of the Segal-Bargmann transform.*

Wilmot, James, *Topics in divisible codes.*

Wood, Maria, *Pseudodifferential C^*-algebras associated with one-parameter groups of singular inner functions.*

STATISTICS

Kirkwood, Bessie Hershberger, *Constructing confidence regions for a composition of tectonic plate rotations under heteroscedasticity.*

Neeman, Teresa Margaret, *Rank statistics for spherical data.*

Sun, Weiman, *Statistical modeling and simulation of the time delayed feedback regulation of the hypothalamic-pituitary-testicular gonadal axis.*

Virginia Commonwealth University (1)

BIOSTATISTICS

Lu, Jiandong, *The standardized influence matrix and its application to the generalized linear models.*

Virginia Polytechnic Institute and State University (17)

MATHEMATICS

Borggaard, Jeffrey, *The sensitivity equation method for optimal design.*

Burkardt, John, *Sensitivity analyses and computational shape optimization for incompressible flows.*

Chasen, Lee, *The cohomology ring of classical Brauer tree algebras.*

Chen, Jun, *Discrete dynamical systems in solving H-equation.*

Chung, Myungsuk, *Lie Derivations on rings of differential operators.*

Huang, Guowei, *Asymptotic properties of solutions of a KdV-Burgurs equation with localized dissipation.*

Karamikhowa, Rossitza, *Finite element analysis of a Ginzburg-Landau type model for semiconductivity.*

Lynch, James Keith, *Structures of triangles and quadrilaterals of groups.*

McCall, Thomas Mark, *Units and class groups of imaginary octic fields.*

Pitts, George, *Domain decomposition and high order discretization of elliptic partial differential equations.*

Puls, Michael, *Analytic versions of the zero divisor conjecture.*

Ranalli, Ramona, *The 2-Sylow subgroup of the class group of biquadratic fields.*

Yao, Aixiang, *Kinetic theory and global existence in L^1 for a dense square-well fluid.*

STATISTICS

Griffiths, Kristi, *Model selection and analysis tools in response surface.*

Kim, Donggeon, *Least squares mixture decomposition.*

Letsinger, William Curtis, *Optimal one and two-stage designs for the logistic regression model.*

Mangeshkar, Milan, *Estimation of partial group delay with applications to small samples.*

WASHINGTON

University of Washington (13)

BIOSTATISTICS

Couper, David, *Complementing survival analysis with analysis of the mean function of longitudinal data subject to censoring.*

DeMoor, Carl, *Adaptive testing in clinical trials.*

Griffith, William, *Penalized likelihood estimation of the tumor incidence rate in survival sacrifice experiments with laboratory animals.*

McBurnie, MaryAnn, *Logistic regression when the prevalence of a covariate is extremely low.*

McKinney, Steve, *Autopaint: A toolkit for visualizing data in four or more dimensions.*

Shen, Yu, *Estimation of survival distribution in heterogeneous samples and assessment of treatment effects.*

MATHEMATICS

Hudelson, Matthew Guy, *Geometric and computational methods for finding largest j-simplices in d-cubes.*

Neely, William Whipple, *Integral identities and cohomology on complex manifolds.*

Verzani, John Andrew, *On geometric properties of the path-valued process.*

STATISTICS

Assunção, Renato Martins, *Robust estimation in point processes.*

Higdon, David Mitchell, *Spatial applications of Markov chain Monte Carlo for Bayesian inference.*

Hoeting, Jennifer Ann, *Accounting for model uncertainty in linear regression.*

Lewis, Steven Michael, *Multilevel modeling of discrete event history data using Markov chain Monte Carlo methods.*

Washington State University (4)

MATHEMATICS

Kimball, William A., *Asymptotic uniform distributions in finite groups with applications to binomial coefficients.*

Olmos-Gomez, Miguel, *Analytical and numerical solutions of diffusion problems with convection/reaction.*

Valdivia, Rebekiah, *A mathematical model for transdermal drug delivery.*

Zhou, Yingpeng, *Affine planes with collineation groups doubly transitive on the line at infinity.*

WEST VIRGINIA

West Virginia University (3)

MATHEMATICS

Caulfield, Michael, *Some properties of full, half and quarter plane infinite latin squares, including connection with sequenceable groups and directed graphs.*

Darrah, Marjorie Anne, *Paths and cycles in semicomplete digraphs.*

Pierce, Robert Allen, *Two problems in continuum theory.*

WISCONSIN

Marquette University (3)

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

Antonippillai, Anne, *Subsemigroups of completely simple semigroups.*

Ardeshir, Behrostaghi Mohammad, *Aspects of basic logic.*

Cheong, Kyeong-hyeui, *Closed inverse subsemigroup lattices of inverse semigroups.*

University of Wisconsin-Madison (50)

INDUSTRIAL ENGINEERING

Ankenman, Bruce, *Inference for the eigenvalues in second order response surface models.*

Booske, Bridget, *Determining health plan coverage: Priority setting and objectives.*

Desiraju, Ramakrishna, *Performance analysis of flexible manufacturing systems with a single discrete material handling device.*

Gujar, Ravindra, *Performance analysis and productivity improvement of flexible assembly cells.*

Hsu, Yi-Hsin, *Quality of technical care in cardiac patients: Patient judgment compared to professional evaluation.*

Jeng, One-Jang, *Quantitative assessment of functional deficits associated with carpal tunnel syndrome.*

Lee, Seongil, *Shape constancy of two-dimensional euclidean transformed figures in haptic environments.*

Polarouthu, Chandrasekhar, *Performance evaluation of multilevel closed fabrication assembly systems.*

Tang, Ben C., *Technology transfer: An exploratory study of patent licensing pattern.*

Yang, Chien-Lin, *Test of a model of cognitive demands and worker stress in computerized offices.*

MATHEMATICS

Akgul, Nilgun A., *Coagulation-diffusion systems.*

Cooper, Shaun, *On the Macdonald identities, a conjecture of Forrester and a functional equation.*

Deckelman, Steven M., *Studies of holomorphic functions having absolutely continuous boundary values on curves in the unit ball of $\mathbb{C}^n$.*

Dolinak, Joseph II, *Homotopy operations in Tate cohomology.*

Dougherty, Anne M., *Averaging and diffusion approximations for stochastic network models.*

Galminas, Lisa Rae, *Computable algebraic structures.*

Ghazel, Moncef, *The relative loopspace.*

Guo, Likang, *The peak-interpolation sets in product domains.*

Johnson, Kurt N., *Circularly symmetric deformation of shallow elastic membrane caps.*

Johnson, Mark James, *Techniques in iterated forcing.*

Johnson, Michael James, *Approximation in $L_p(\mathbb{R}^d)$ from principal shift-invariance spaces.*

Juan-Pineda, Daniel, *Cohomology and k-theory of discrete groups.*

Lawrence, K. Mark, *Combinatorial bounds and constructions in the theory of uniform point distributions in unit cubes, connections with orthogonal arrays and a poset generalization of a related problem in coding theory.*

Leduc, Robert E., *A two-parameter version of the centralizer algebra of the mixed tensor representation of the quantum general linear group.*

Lee, Chang-Ock, *Multigrid methods and parallel computations for elliptic problems, with an emphasis on linear elasticity.*

Lee, Jongwoo, *Gravity-capillary two-dimensional free surface flows in the presence of rigid walls.*

Leonhardi, Steven D., *Generalized non-splitting in the recursively enumerable degrees.*

Letarte, Alan L., *Covering properties on the hyperfinite time line.*

Lewis, Mark L., *A new character correspondence in solvable groups.*

Maxwell, Thomas O., *Periodic and connecting orbits of Hamiltonian systems.*

Mellendorf, Stephen P., *Hamilton decompositions of Cartesian products of multicycles.*

Pruim, Randall James, *Weakly hard languages and Kuratowski-Ulam theorems in resource bounded category.*

Sellami, Hichem, *A nonsmooth continuation method.*

Spasojevic, Zoran, *Gaps, trees and iterated forcing.*

Spradlin, Gregory S., *Multibump solutions to a class of semilinear elliptic partial differential equations.*

Temple, William V., *Finite representation degree groups.*

Waldron, Shayne F., *L_p-error bounds for multivariate polynomial interpolation schemes.*

Wilson, Mark C., *Primeness of enveloping algebras.*

Zakeri, Golbon, *Multi-coordination methods in parallel solution of block-angular programs.*

STATISTICS

Banerjee, Mousumi, *Influence diagnostics in longitudinal models.*

Chang, Shih-Chieh, *Time-varying relationship and measurement error model on marketing research.*

Dias, Ronaldo, *Density estimation via H-splines.*

Lee, Jaekyun, *Inference for deleterious gene structure: Direct modeling, Markov chain Monte Carlo, and model validation using Bayesian predictive methods.*

Lu, Yili, *Stochastic models of random fatigue under step-stress accelerated life test and their applications in bioassay and clinical trials.*

Pinheiro, Jose, *Topics in mixed effects models.*

Qu, Peng, *Application of Box-Cox transformations to discrimination for the two-class problem.*

Sim, Songyong, *A multivariate multisample quantile test for ordered alternatives.*

Wang, Yuedong, *Smoothing spline analysis of variance of data from exponential families.*

Yan, Chongqing, *Regression trees and nonlinear time series modeling.*

Zheng, Xiaodong, *Contributions to confidence interval construction via bootstrap calibration.*

University of Wisconsin-Milwaukee (6)

MATHEMATICAL SCIENCES

Charlwood, Kevin E., *On multiparametric quantum deformations of GL(n) and its dual.*

Condie, Steven Michael, *Continuous maps on the interval: Minimal sets, observable attractors, and the skeleton of lambda.*

Kondoyannidis, Nicholas, *Multiparameter spectral theory and higher order initial value problems, solution and scattering theory.*

Shim, Hong-Tae, *On Gibbs' phenomenon in wavelet subspaces and summability.*

Wang, Long, *ω-limit sets for a map on an interval.*

Wu, Dane W., *Probability density estimation with wavelets.*

WYOMING

University of Wyoming (2)

STATISTICS

Edwards, Dareen Lynn, *An empirical comparison of maximum difference sensitivity modeling and discrete choice analysis.*

Pontius, Jeffrey, *Counting/Markov processes, design-based sampling, and animal resource use.*

Doctoral Degrees Conferred 1993–1994

Supplementary List

The following list supplements the list of thesis titles published in the November/December 1994 *Notices*, pages 1137–1154.

ARKANSAS

University of Arkansas (2)

MATHEMATICAL SCIENCES

Hammosh, Mamoun Ahmad, *Parameter dependence in dynamical systems and functional integer equations with delay.*

Zhang, Shu, *Determination of semigroups by their inverse semigroups of partial automorphisms.*

CALIFORNIA

Stanford University (4)

OPERATIONS RESEARCH

Hu, Chuanpu, *Suboptimal control policies in medical drug therapy.*

Juneja, Sandeep Kumar, *Efficient rare event simulation of stochastic systems.*

Krishna, Alamuru Syamagopala, *Enhanced algorithms for stochastic programming.*

Zajic, Timothy Ronald, *Large deviations for sample path processes and applications.*

MICHIGAN

University of Michigan (4)

IND. AND OPERATIONS ENG.

Erlebacher, Steven John, *Optimally allocating processing time variability on a synchronous assembly line.*

Kaufman, David Edward, *Direct choice in random walk algorithms with application to global optimization.*

Kawlra, Raj, *Development and application of a methodology for minimizing manufacturing costs based on optimal tolerance allocation.*

Rosa, Charles Henry, *Modeling investment uncertainty in the costs of global Co2 emission policy.*

NEW YORK

Syracuse University (1)

MATHEMATICS

Gaskin, Joseph Granville, *Singly-generated closed subalgebras of the Banach algebra of twice continuously differentiable functions on a closed interval.*

NORTH DAKOTA

North Dakota State University (2)

MATHEMATICS

Burns, David R., *On the convergence of ergodic averages over zero density sequences in topological dynamics.*

Doctoral Degrees Conferred

1994–1995 Supplement

ARIZONA

University of Arizona (4)

MATHEMATICS

Bollschweiler, Ronald, *Valuated modules over valuation domains.*

Brilleslyper, Michal, *The Dirichlet problem for harmonic maps from the disk into a sphere.*

Olson, Steven, *Homomorphisms of planar near-rings.*

Sun, Hsin-min, *Planar near-rings and block designs.*

CONNECTICUT

Yale University (1)

BIOSTATISTICS

Ma, Zheng, *A model describing the relationship among cancer morbidity, survival and mortality.*

DISTRICT OF COLUMBIA

George Washington University (3)

MATHEMATICS

McNicholl, Timothy, *The inclusion problem for generalized frequency classes.*

Miller, William, *Approaches to matroid reconstruction problems.*

Ramamurti, Sita, *Dynamics near the essential singularity for zero-free entire vector fields of finite order.*

VIRGINIA

George Mason University (3)

ELECTRICAL ENGINEERING-INFORMATION TECHNOLOGY AND ENGINEERING

Akujuobi, Cajetan Maduabuchukwu, *Wavelets and fractals: A quantitative assessment of their performance in image reconstruction, restoration and segmentation.*

COMPUTATIONAL SCIENCES AND INFORMATICS

Solka, Jeffrey L., *Matching model information content to data information.*

STATISTICS

Poston, Wendy, *Optimal subset selection methods.*

The above list supplements the list of thesis titles published in the January 1996 issue of the *Notices*. 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 granted by the university.