Doctoral Degrees Conferred 1992–1993

The following list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 1992, to June 30, 1993) reported in the 1993 Annual AMS-IMS-MAA Survey by 219 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 1994 issue of the *Notices*.

ALABAMA

Auburn University (1)

ALGEBRA, COMBINATORICS, AND ANALYSIS

Lange, Bernd, *On wavelets in $L^2(R^2)$ and complex planar splines.*

University of Alabama at Birmingham (3)

BIOSTATISTICS

Bass, John David, *A contribution to longitudinal data analysis: maximum quasi-likelihood generalized estimating equations.*

Russel, Carl M., *A simulation study of multivariate randomization testing applied to radiographic cephalometry.*

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

University of Alabama, Huntsville (2)

MATHEMATICAL SCIENCES

England, David E., *A mathematical analysis of nocturnal slope flows.*

Johnson, Terri Wilhite, *Measures of domination and distance sets studied as prioritized multiproperty set problems.*

University of Alabama, Tuscaloosa (4)

APPLIED STATISTICS

Wade, Mark Russell, *A study of cause-selecting charts and Q-charts.*

MANAGEMENT SCIENCE AND STATISTICS

Caveny, Regina Smits, *Max-min allocation of a multi-item single machine production system with differential setup times.*

Ismail, Habib Ali, *Nonparametric comparison of treatments with a control: procedures based on the sign test.*

Miller, Diane, *A generalized architecture for intelligent reactive management systems.*

ALASKA

University of Alaska, Fairbanks (1)

MATHEMATICAL SCIENCES

Lituanyi, Peter, *Transfer and Steenrod squares.*

ARIZONA

Arizona State University (3)

MATHEMATICS

Lo, Eddisanter, *Numerical solution of neutral functional differential equations.*

Wen, Ixin, *Cohomology of permutation representations in combinatorical designs.*

Woo, Mahn Ling, *Parallel power-of-two fast Fourier transforms on a hypercube.*

University of Arizona (14)

APPLIED MATHEMATICS

Fierro, Leobardo, *Analysis of countercurrent exchange between paired blood vessels.*

Glasgow, Scott, *Velocity-tuned resonances in atomic diffraction by a standing wave light field.*

Moody, Marla, *Kriging of spatial data using constrained neighborhoods with kernal estimation as an auxiliary estimator.*

Porkorny, Martin, *The behavior of the spectrum of several quantum mechanical spin systems in the infinite volume limit.*

Rasmussen-Rhodes, Hannah, *Multivariate and geostatistical analysis of Phase I Eastern Lake survey data.*

Uribe, Guillermo, *On the relationships between discrete and continuous models for density-dependent size-structured population dynamics.*

MATHEMATICS

Ballot, Christian, *Density of prime divisors in linear recurring sequences.*

Cheng, Jian, *Horseshoes in the standard map.*

Files, Steve, *Mixed modules and endomorphisms over incomplete discrete valuation rings.*

Ke, Weng-Fong, *Structures of circular planar nearings.*

Liu, Zheng, *Dynamical system and its random perturbations.*

McShane, Janet, *Computation of polynomial invariants of finite groups.*

Zhu, Haolong, *Contributions to some areas in reliability theory.*

Zou, Mao Rong, *Geometry of two degree of freedom integrable Hamiltonian systems.*

ARKANSAS

University of Arkansas at Fayetteville (3)

MATHEMATICAL SCIENCES

Lee, Hyun Woo, *Properties of solutions of a class of Volterra and functional differential equations.*

Weir, Gordon Barnett, *Ideal structure and positive operators on Banach lattices.*

Young, Paula Grafton, *The relationship of positive operators to various functional representations of Banach lattices.*

CALIFORNIA

California Institute of Technology (3)

APPLIED MATHEMATICS

Ryan, Barry J., *Lie-Poisson integrators in Hamiltonian fluid mechanics.*

MATHEMATICS

Socrates, Jude Thaddeus U., *The quaternionic bridge between elliptic curves and Hilbert modular forms.*

Wang, Wensheng, *Carleman inequalities and unique continuation for higher order elliptic differential operators.*

Stanford University (27)

ENGINEERING-ECONOMIC SYSTEMS

Chan, Brian Y., *Structural controllability and observability in influence diagrams.*

Curtat, Laurent, *Supermodular stochastic games: existence and characterization of Markov equilibria.*

Fan, Stephen, *Technology, mobile capital, and strategic policies—a dynamic global capital market equilibrium study.*

Kumar, Shiv, *Location decisions for private facilities in the presence of elastic demand and externalities.*

Lilienthal, Peter, *Flexible dispatch for non-utility generators.*

Narongdej, Pol, *Interactive man-machine learning in a dynamic manufacturing environment.*

Yates, Andrew, *An efficient hierarchy for constrained economies.*

MATHEMATICS

Chen, Jingyi, *A study of linear and nonlinear PDE's in differential geometry.*

Chiu, Patrick, *Extremal determinants, dense sphere packings and covering with Hecke points.*

Haskell, Cymca, *Brownian motions and billiards on the torus.*

Havlicek, John, *On the structure of spaces of holomorphic maps from two copies of the Riemann sphere to complex.*

Ho, David, *Acoustic wave interaction with locally inhomogeneous surfaces.*

Jenvey, Edward, *Structure of strongly stationary processes.*

Nicol, Matthew, *The statistical stability of a Bernoulli toral linked twist map of infinite entropy.*

Petridis, Ioannis, *Scattering theory for automorphic functions and its relation to L-functions.*

Shen, Ying, *New results on some dynamical and stationary problems in geometry.*

Wolfe, Andrea Sven, *Asymptotic and numerical analysis of linear and nonlinear eigenvalue problems.*

OPERATIONS RESEARCH

Brady, Stephen Dean, *New mathematical programming approaches to the problem of image reconstruction from projections.*

Chatwin, Richard Edward, *Optimal airline overbooking.*

Erdman, Eva Diane, *Complexity measures for testing binary keystreams.*

Guu, Sy-Ming, *On P_0 and its subclasses.*

Krishnarao, Pinnamaneni V., *Additivity of minimum cost in dual network flows.*

Mehrotra, Vijay, *An approximation procedure for general closed multiclass queueing networks with deterministic routing.*

Mello, Margarida Pinheiro, *Generalized Leontief substitution systems and lattice programming.*

Murray, Steve, *An interior point approach to the generalized flow problem with costs and related problems.*

Pich, Michael, *The QNET method for two-moment analysis of open queueing networks with general workstation capabilities.*

Skiadas, Constantinos, *Advances in the theory of choice and asset pricing.*

University of California, Berkeley (53)

BIOSTATISTICS

Ashby, Mark Arved, *Regression smoothing of pairwise-correlated data.*

Chasalow, Scott Daniel, *Exact optimal response surface designs with random block effects.*

Vittinghoff, Eric, *Semi-parametric estimation of growth curves using data from a prevalent cohort.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Dessouky, Maged Mohamed, *An aggregate planning model considering processing time.*

Du, Yafeng, *Fleet sizing and empty equipment redistribution for transportation networks.*

Friedman, Eric J., *Topics in decentralization and coordination.*

Hayakawa, Yu, *Bayesian parametric models for lifetimes from a subjectivistic viewpoint: model construction and characterizations of aging.*

Hong, Sung-Pil, *About the strong polynomiality of some classes of convex quadratic programming.*

Leem, Choon Seong, *Input feature scaling algorithm for competitive-learning-based cognitive modeling with two applications.*

Lin, Margaret, *Modelling survey response with repeated interviewing attempts.*

Liu, Chihwei, *A modular production planning system for semiconductor manufacturing.*

Najmi, Adeel, *Management of cycle time in semiconductor wafer fabrication.*

Saeed, Baruch Ismail, *Data envelopment analysis and convexity: formulations and sensitivity.*

Svoboda, Alva Joseph, *Simulation of dispatchable demand-side management in electric power system operations planning.*

Weng, Wei-Chih Willie, *Short-term scheduling of semiconductor burn-in.*

MATHEMATICS

Bloch, William Lester, *Extending flows from isolated invariant sets.*

Brady, Noel, *The geometry of asynchronous automatic structures on groups.*

Cooper, Duane Anthony, *Probably approximately correct learning on the class of Lipschitz functions.*

Cruz-Uribe, David Vincente, *Piecewise monotonic doubling measures.*

De Smit, Bart, *Class group relations and Galois module structure.*

Dykema, Kenneth Jay, *Free products of hyperfinite von Neumann algebras and free dimension.*

Engl, Gregory James, *Lower hemicontinuity of the Nash equilibrium correspondence and the hedonic core.*

Fogel, Micah, *The algebra unknotting number.*

Fowler, Neal Jay, *Free E_0-semigroups.*

Ge, Guoqiang, *Algorithms related to multiplicative representations of algebraic numbers.*

Gloor, James Alan, *Locatability on Banach spaces.*

Gomprecht, David Warren, *Rank two vector bundles on genus two fibrations.*

Greenig, Douglas Scott, *Convexity and the Markus-Yamabe conjecture.*

Guan, Zhuang-dan Daniel, *On certain complex manifolds.*

Hazan, Simone, *The projection property for orders and triangle-free graphs.*

Herald, Christopher Mark, *Legendrian cobordism and Chern-Simons theory on 3-manifolds with boundary.*

Hjorth, Gregory, *The influence of μ_2.*

Howe, Everett William, *Elliptic curves and ordinary abelian varieties over finite fields.*

Huang, Liaw, *On joint deformation spaces.*

Huang, Yili, *Solving nonlinear differential equations by one-step methods: global error and complexity analysis.*

Hwang, Andrew David, *Extremal Kähler metrics on compact complex manifolds and a partial converse to a theorem of Lichnerowicz.*

Impagliazzo, Russell Graham, *Pseudo-random generators for probabilistic algorithms and for cryptography.*

Kidder, Jeffrey Nelson, *A theory of faulty dynamics.*

Lee, Nany, *Some theorems on symmetric spaces.*

Lobel, Perry David, *Correspondence with elliptic curves.*

Michler, Ruth, *Hodge-components of cyclic homology of singular affine hypersurfaces.*

Nagy, Gabriel, *A framework for deformation quantization.*

Nazari, Saeid, *Rotational surfaces in Euclidean and hyperbolic spaces, mean curvature motion, and the moving finite element methods.*

Pavlovic, Branka, *Automatic continuity of Lipschitz algebras.*

Poon, Wing Yew, *On groups, automata, and games.*

Priest, Douglas M., *On properties of floating point arithmetics: numerical stability and the cost of accurate computations.*

Sageev, Michah El-Yakim, *Ends of pairs of groups and cube complexes of non-positive curvature.*

Tenorio, Luis-Francisco, *Asymptotic dynamics of locally oblique solitary wave solutions of the KP.*

Troyer, Todd William, *A Lyapunov method for correlational learning in two layer neural networks.*

Volker, Runde, *Problems in automatic continuity.*

Wang, Shuzhou, *General constructions of compact quantum groups.*

Yang, Xiaodong, *Affine-scaling algorithms for linear programming.*

Zabihi, Farhad, *The duality of analytic functions.*

University of California, Davis (4)

MATHEMATICS

Jian, Alan Sonjun, *A multiplicative property of a nonabsolutely convergent integral.*

Zhu, Yi, *Multidimensional upwind finite-volume schemes for the Euler equations and finite difference schemes for the Maxwell's equations.*

STATISTICS

Cavanaugh, Joseph, *Small-sample model selection in the general state-space setting.*

Song, Kaisheng, *Nonparametric estimation of curves and boundaries.*

University of California, Irvine (6)

MATHEMATICS

Ahn, Ho Sung, *Nonstationary Anderson model with a Levy random potential.*

Davis, Mark Kelly, *Some results on groups of finite Morley rank.*

Kakarala, Ramakrishna, *Triple correlation on groups.*

Mingrone, Joseph R., *A collacation solution to the Dirichlet problem.*

Noble, John M., *Evolution equation with random potential.*

Schindler, Ian Edmund William, *Some variational methods for quasilinear elliptic differential equations on unbounded domains.*

University of California, Los Angeles (29)

MATHEMATICS

Appleby, Glenn David, *Nilpotent matrices over discrete valuation rings.*

Bence, James, *Motion of multiple junctions: a level set approach.*

Boca, Florin-Petre, *Amalgamated product von Neumann algebras and subfactors.*

Brussel, Eric Saxton, *Noncrossed product division algebras and other examples over $Q(t)$ and $Q((t))$.*

Chaderjian, Anie, *Some new classes of supplementary difference.*

Chen, Chun-Houch, *Interactive classification tree guided by sliced inverse regression: construction, modification and visualization.*

Cleary, Sean, *Groups of piecewise linear homeomorphisms.*

Daw, Edward Warwick, *Extended homotopy Brouwer theory.*

De Carli, Laura, *Unique continuation for higher order elliptic operators.*

De Pillis, Lisette G., *Far field behavior of slightly compressible flows.*

Dempsey, Kevin, *A mathematical formulation for the finite elastohydrodynamics of rings in 2D flows.*

Green, Larry, *An algebraic geometry approach to nonlinear differential equations.*

Grieser, Daniel, *L_p bounds for eigenfunctions and spectral projections of the Laplacian near a concave boundary.*

Handjani, Shirin Joy, *Symmetric nearest-particle systems.*

Iosevich, Alex, *Maximal operators associated to families of flat curves and hyper-surfaces.*

Liu, Guanghan, *On local smoothing and Bayesian estimation.*

Liu, Xu-Dong, *Nonoscillatory high order methods for the numerical solution of conservation laws.*

Murphy, Timothy, *Optimal control problems for parabolic boundary control systems governed by parabolic equations.*

Ono, Ken, *Congruences on the Fourier coefficients of modular forms on $\Gamma_0(N)$ with number theoretic applications.*

Pao, Karen, *Computational aeroacoustics of law speed flows in two dimensions.*

Paoletti, Roberto, *Seshadri constants, free pencils and restriction of stable bundles.*

Qing, Jie, *The Dirichlet problem for harmonic maps from surfaces.*

Rieffel, Eleanor, *Some interactions between groups theory and the geometry of symmetric spaces.*

Sherman, William R., *On the Kneser-Haken finiteness theorem: a sharpness result.*

Vu, Hai, *Singularities of hyperbolic systems of partial differential equations.*

Wilson, Brad Lee, *p-adic Hecke algebras and L-functions.*

Xia, Huashi, *Degenerations of moduli of stable bundles over algebraic curves.*

Xu, Youyu, *Some topics in Riemannian geometry.*

Zhou, Yan, *Non-cooperative games with vector payoffs.*

University of California, Riverside (7)

MATHEMATICS

Chen, Da-Quing, *Kernel coefficient ideals.*

Contreras, Martha Preciado, *Resonance and double resonance for higher order quasilinear elliptic partial differential equations between the first and second eigenvalue.*

Legner, Mary Margarita, *Quasilinear elliptic and parabolic partial differential equations with a derivative driving force.*

Prophet, Michael Patrick, *Codimension one minimal projections onto the quadratics and their adjoints.*

STATISTICS

Chow, I-Shang, *Spectral analysis of random fields with random sampling.*

Derderian, Maria, *Robust experimental plan and its role in determining robust designs.*

Guy, David, *The application of higher order statistics to non-linear model identification and parameter estimation in the time and frequency domains.*

University of California, San Diego (16)

MATHEMATICS

Angel, Jeffrey Patrick, *Finite upper half planes over finite rings and their associated graphs.*

Beck, Desiree Anne, *Permutation enumeration of the symmetric group and the hyperoctahedral group and the combinatorics of symmetric functions.*

Bloch, Stephen Austin, *Divide and conquer in parallel complexity and proof theory.*

Callahan, Kevin Eric, *The applications of Ahlfor's value distribution theory of covering surfaces to circle packings.*

Carbonara, Joaquin O., *The inverse Kosta matrix, its t-analog and applications.*

Curtis, Robert Rowen, Jr., *Examples of hypersurfaces with rational singularities.*

Julian, Alfredo J., *The variational form of Bayes estimators of normal variance in the linear models case.*

LeBorne, Richard Charles, *Numerical analysis of the a posteriori recursive least squares lattice prediction algorithm.*

Li, Tong, *The Ricci flow on surfaces with boundary.*

Robinson, David Hill, *Parallel algorithms for group word problems.*

Singer, Dan William, *q-analogues of Lagrange inversion and q-Sheffer sequences.*

Stankus, Mark, *Isosymmetric linear transformations on complex Hilbert spaces.*

Stephens, Peter Washington, *Bridge graphs and the Carrier poset for biconnected simple graphs.*

Walker, Michael L., *H-infinity control of linear and nonlinear systems and parameter estimation algorithms for asymptotic expansion signal models.*

Wang, Zhenghan, *The classification of topological four manifolds with infinite cyclic fundamental group.*

Ying, Jiangang, *Revuz measures and the Feynman-Kac formula.*

University of California, Santa Barbara (6)

MATHEMATICS

Bramlett, Lindsey L., *Construction of modular functions on certain subgroups.*

Lash, Alan Eliot, *Boundary curve space of the Whitehead complement.*

Schultens, Jennifer Carol, *Classification of Heegard splittings for some Seifert manifolds.*

Swiech, Andrzej Janusz, *Viscosity solutions of fully nonlinear partial differential equations with unbounded terms in infinite dimensions.*

Zhang, Fuzhen, *Numerical ranges and permanents.*

STATISTICS AND APPLIED PROBABILITY

Athanasopoulos, Bessy, *Probabilistic approach to the rounding problems with applications to fair representation.*

University of California, Santa Cruz (1)

MATHEMATICS

Tantalo, Patrick, *Geometric phases for the free rigid body with variable inertia tensor.*

University of Southern California (3)

MATHEMATICS

Heubner, Marianne, *Parameter estimation for stochastic partial differential equations.*

Lee, Young S., *Approximation and convergence of nonlinear semigroups.*

Mohseni, Sassan, *Non-positively curved metrics on a compact surface.*

COLORADO

Colorado School of Mines (3)

MATHEMATICS AND COMPUTER SCIENCES

Hart, Douglas I., *Learning algorithms for sequential decision making problems.*

Ke, Liu, *A neural net approach for nonlinear mappings of multi-dimensional continuous functions.*

Martin, Ephraim, *A methodology for reliability and maintainability analysis of equipment.*

Colorado State University (13)

MATHEMATICS

Iiams, Joel E., *Non-existence results for Hadamard difference sets.*

Molina, Robert R., *Problems in graph reconstruction.*

Regnier, Kimberly J., *Brauer groups and reflexive modules on toric varieties.*

STATISTICS

Al-Eideh, Basel, *Stochastic models for population growth with catastrophes.*

Al-Zalzalah, Yousef, *Analysis of competing independent and dependent risks.*

Anderson, Jana C., *Determination of dispersion patterns in spatial point processes.*

Donahue, Rafe M., *Estimation for nearest one-neighbor processes.*

Gui, Rongde, *Confidence intervals for ratios of linear combinations of variances in the components-of-variance model.*

Huzurbazar, Snehalata V., *Saddlepoint approximations in multivariate analysis.*

Johnson, Jeryl W., *Exact Gaussian likelihood for irregularly observed non-stationary processes.*

Mosier, Michael G., *Approximate confidence intervals for fixed effects in mixed linear models.*

Whitmore, James B., *Moments of several classes of linear permutation statistics and efficient computing forms.*

Zhu, Zhiyong, *Parameter estimation using Laplace transforms in the general queueing model.*

University of Colorado, Boulder (5)

MATHEMATICS

Beard, Mary Anne Deal, *New Bounds for certain Diophantine problems.*

Coleman, John P., *Topologies on free algebra.*

D'Ambrosia, James, *On a nearest neighbor statistic.*

Peterson, Douglas C., *Cardinal functions on ultraproducts, and the reaping number for Boolean algebras.*

Shin, Chang Eon, *On the structure of optimal stabilizing controls in dimension 4.*

University of Colorado at Denver (3)

MATHEMATICS

Anderson, Charles, *Niche graphs and niche numbers: new results and alternative definitions.*

Liu, Zhining, *Multigrid methods for simulation of flow transition.*

Oliveira, Suely, *Parallel multilevel methods for transport equations.*

University of Northern Colorado (3)

MATHEMATICAL SCIENCES

Gee, Mei-Jih, *A study of the measure of kurtosis as an index for the linear estimators.*

McCormick, David, *Formulae for estimating the power of 1 factor ANOVA designs.*

Pan, Hung-Ming, *A study of metacognitative behaviors in mathematics problem solving of older elementary students in Taiwan, the Republic of China.*

CONNECTICUT

University of Connecticut (9)

MATHEMATICS

Gao, Mei, *Measuring the distance from a system to the set of all uncontrollable systems.*

O'Donnell, Christopher Jay, *Maximal and minimal prime ideals in incidence algebras with applications to ring theory.*

Pan, Shiho, *Descriptive topological spaces and perfect maps.*

Towghi, Nasser, *Functions of finite, P-variations and stochastic integration.*

Wang, Ningyi, *Normal surfaces in fibered 3-manifolds.*

Ye, Taiping, *The numerical computation of the Douady-Earle extension and Teichmuller mappings.*

Zhang, Minxie, *Image reconstruction from Radon transform data.*

STATISTICS

Chattopadhyay, Saibal, *Comparing two populations of combining available independent sequential studies.*

Lee, Tai-Ming, *Comparison of sampling based approaches for Bayesian computations.*

Wesleyan University (1)

MATHEMATICS

Paras, Agnes Clotilde Tablante, *Aspects of abelian groups as modules over their endomorphism rings.*

Yale University (10)

BIOSTATISTICS

Weinberg, Vivian K., *The appropriateness of estimating partially observed data with a first order Markov process.*

MATHEMATICS

Akman, Fusun, *The semi-infinite Weil complex of a graded Lie algebra.*

Cherry, William Allen, *Hyperbolic p-adic analytic spaces.*

Fischer, John Edward, Jr., *Geometry of 2-categories.*

Jastrzebowski, Wojciech Zbigniew, *Involutions on four-manifolds.*

Lee, Soo Teck, *On some degenerate principal series representations of $U(n, n)$.*

Pereyra, Maria Cristina, *Sobolev spaces on Lipschitz curves, paraproducts, and related operators.*

Warner, Frederick J., *Continuity of pressure for quadratic polynomials.*

STATISTICS

Ishwaran, Hemant, *Regular estimators and efficiency in semiparametric mixture models.*

Rozal, Gregory P., *Exploring features of multivariate distributions using constrained spanning trees.*

DELAWARE

University of Delaware (7)

MATHEMATICAL SCIENCES

Climent, John, *A simple procedure for testing homogeneity of variance when the variance and means are linear.*

Crato, Nuno, *Some misspecification problems in long-memory time series models.*

Gorman, Robert, *Goodness of fit for non-location scale families of distributions.*

Labriola, Dominic, *A multiple regression model to assess treatment effects in efficacy assessments for clinical research.*

Sweitzer, Dennis, *Current enhancement in random flaw networks.*

Tao, Qi, *Robust quantile estimation using the generalized Tukey-Lambda distribution.*

Wainwright, Barbara, *The distribution and properties of the slope estimator of the linear structural relation using the minimum (weighted) norm distance technique: An empirical study.*

DISTRICT OF COLUMBIA

American University (4)

MATHEMATICS AND STATISTICS

Lee, Raymond, *The effects of a program utilizing environmental issues on achievement of finite mathematics students.*

Li, Yong, *Properties of a vector correlation coefficient with applications to geophysical data.*

Pierre, Charles, *Quality control in education.*

Vetter, John, *Estimation of covariance matrices using influences of eigenvectors and eigenvalues.*

George Washington University (4)

OPERATIONS RESEARCH

Campodonico-Viacava, Sylvia Susana, *The signature as a covariate in reliability and biometry.*

Chen, Yiping, *Unification of software reliability models by self-exciting point processes.*

Lehmkuhl, Lee James, *A polynomial primal-dual interior point method for convex programming with quadratic constraints.*

Massimini, Sebastian Vincent, *Optimal inspection schedules using a Bayesian approach.*

FLORIDA

Florida Institute of Technology (3)

APPLIED MATHEMATICS

Devi, J. Vasundhava, *Qualitative behavior of impulsive differential systems.*

Kaymakcalan, Billur, *A unified approach to nonlinear dynamic systems on time scales.*

McRae, Farzana, *Some problems in impulsive control systems.*

Florida State University (10)

MATHEMATICS

Bertram, Richard, *A computational study of the effects of Serotonin on the molluscan burster neuron R_{15}.*

Eberwein, Martin, *Cosemisimple Hopf algebras.*

Heydari, Shahryar, *Zeta regularized products and modular constants.*

Jayakumar, Puthenpura, *Spatio-temporal chaos in thermal convection: a computational study.*

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

STATISTICS

Burr, Thomas, *Estimating and modeling gene flow for a spatially distributed species.*

Herge, Donna, *Effects of inspection error on optimal inspection policies and software fault detection models.*

Li, Gang, *Generalized Pearson-Fisher chi-square goodness-of-fit tests, with applications to models with life history data.*

Park, Cheolyong, *A preliminary test for structure.*

Sun, Yanging, *Transformations of certain Gaussian random fields, with applications in survival analysis.*

University of Florida (10)

MATHEMATICS

Burkett, John C., *On some problems of interpolation and approximation theory.*

Dhavakodi, Salai T., *On the parity of the number of small prime factors of integers.*

Hrvoje, Sikic, *Superprocesses.*

Woodward, Scott Davie, *On commutative f-rings which are rich in idempotents.*

Zhu, Huixia, *The generalized matrix product and its applications in signal processing.*

STATISTICS

Kundu, Sudeep, *A decision-theoretic approach to estimation of variances and various ratios.*

Nam, Eunwoo, *On the rate of convergence of series of random variables.*

Nangia, Narinder, *Bayesian analysis of small domain data in repeated surveys.*

Raychaudhuri, Aparna, *Rank tests for randomly right censored bivariate life-time data.*

Sharma, Divakar, *The tail-probability approximation for one and two samples U-statistics by saddlepoint methodology.*

University of Miami (1)

MATHEMATICS AND COMPUTER SCIENCE

Wang, Xiabo, *Reward functions and Markov strategies in finite-stage stochastic decision problems.*

University of South Florida (7)

MATHEMATICS

Chang, Tony Yu, *Domination numbers of grid graphs.*

Liu, Xiaoyan, *Generalization of de Montessus de Ballore Theorem on the row convergence of rational approximation.*

Qiao, Hongzhu, *Parametric and nonparametric statistical modeling: reliability analysis.*

Ruedemann, Richard W., *Some identities involving orthogonal polynomials.*

Schweiker, Kevin S., *Fractal measure theory.*

Suresh, Nalina, *Modeling and analysis of software reliability.*

Zhang, Ruiming, *On some formulas of William Gopser and spectral properties of certain operators in weighted Hilbert spaces.*

GEORGIA

Emory University (3)

BIOSTATISTICS

Devine, Owen, *Empirical Bayes and constrained empirical Bayes methods for estimating incidence rates in spatially aligned areas.*

MATHEMATICS AND COMPUTER SCIENCE

Arasmith, David M., *Disjoint maximal independent sets.*

Williamson, Sylvia, *Fixed point properties in ordered sets.*

Georgia Institute of Technology (5)

MATHEMATICS

Carvalho, Alexandre Nolasco de, *Infinite dimensional dynamics described by ordinary differential equations.*

Chen, Mingxiang, *Structural stability for time-periodic systems.*

Kelly, William Benjamin, *Convergence of numerical solution to multiphase Stefan-type problems.*

Shen, Wenxian, *Stability and bifurcation of traveling wave solutions.*

Shieh, Jung-sheng, *Some applications of the Bechhofer-Kiefer-Sobel generalized sequential probability ratio test to software reliability testing.*

University of Georgia (2)

STATISTICS

Jones, Mary Mitchell, *Methods of interval hypothesis testing in multivariate analysis of variance.*

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

HAWAII

University of Hawaii at Manoa (4)

MATHEMATICS

Gefroh, Daniel, *Zeros of entire functions.*

Lewis, Wayne, *Almost completely decomposable groups with two critical types and their endomorphism rings.*

Reiser, Edward, *Hyperbolic geometry.*

PUBLIC HEALTH

Ng, Siu-Man, *Age-parity-duration-specific measures of fertility: application to China.*

ILLINOIS

Illinois Institute of Technology (1)

MATHEMATICS

Karamolengos, Michael, *Some new approaches to plasticity and damage–May 1992.*

Northern Illinois University (7)

MATHEMATICAL SCIENCES

Arnold, Mark, *Algorithms and conditioning for eigenvalue assignment.*

Cornick, Jonathan, *On the homology of group graded algebras.*

Dwyer, Howard, *Eigenvalues of matrix Sturm-Liouville problems with separated or coupled boundary conditions.*

Mohanty, Radhagobinda, *Estimation of prediction error variance of a multivariate time series.*

Mupasiri, Douglas, *Some results on complex convexity and the geometry of complex vector spaces.*

Purkayastha, Avijit, *A parallel algorithm for the Sylvester observer equation.*

Rincon, Fernando, *Feedback stabilization of second-order models.*

Northwestern University (7)

MATHEMATICS

Bajer, Anetta, *The May and related spectral sequence for a finite p-group.*

Gottman, Joseph, *Characters on restricted Lie algebras.*

Morrisey, Thomas, *Decoupling degenerate, diffeomorphisms.*

Riffi, Mohamed, *Short-time asymptotics of the Neumann heat kernel for antipodal points on the exterior of a ball.*

Schuster, Bjorn, *On the Morava k-theory of finite 2-groups.*

Skelensky, Janice, *Torsion families of ideals and I-divisible modules.*

Van Buskirk, Mark, *Renegotiation in n-person oligopoly with imperfect monitoring.*

University of Chicago (11)

MATHEMATICS

Capozzoli-Diaz, Anthony, *Actions of discrete Kazhdan groups and semi-simple Lie groups on fiber bundles.*

De Jeu, Rob, *Zaiger's conjecture and wedge complexes in algebraic K-theory.*

Goetz, Edward, *Connection preserving action on fiber bundles.*

Pilz, Brian Scott, *On the Loewy structure of projective modules for some semilinear groups.*

Pugh, Mary Claire, *Dynamics of interfaces of incompressible fluids: the Hele-Shaw problems.*

Sze, Chun-Wing, *Non-negative solutions of the initial Neumann problem for generalized porous medium equation in cylinders.*

Yang, Yimin, *On the coefficient group of equivariant K-theory.*

STATISTICS

Lam, Ming-Long, *A weighted linear prediction approach.*

Meyer, Peter M., *Using interactive recursive partitioning to improve rule-based expert systems.*

Xiang, Xiaojing, *Asymptotic theory for linear functions of ordered observations.*

Zhang, Biao, *Nonparametric function estimation.*

University of Illinois, Chicago (9)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Krecja, Sharon, *The origins of calculus.*

Leung, Chiwah, *Classification of finite dimensional maximal risk estimation algebras with state space dimension 3.*

Li, Yaxin, *Asymptotic analysis of queueing systems with service interruptions.*

Robbert, Sharon, *On classical functions of real analysis.*

Solymosi, Tamas, *On computing the nucleolus of cooperative games.*

Srinivasa, Rao Arikati, *New results in algorithmic graph theory.*

Xi, Zai-Qing, *Optimum replacement for selecting the best components: a dynamic approach.*

Xie, Shisheng, *A ray method for analyzing the transient structure of models in applied probability.*

Yang, Yongzhi, *Asymptotic properties of sojourn times in the queue GI1M11-K with processor-sharing service.*

University of Illinois, Urbana-Champaign (15)

MATHEMATICS

Atkinson, David Steen, *Scaling and interior point methods in optimization.*

Carter, James Egar, *Steinitz classes of tamely ramified nonabelian extensions of algebraic number fields of degree P^3.*

Chu, Liang-Ju, *Theory and algorithms for non-linear optimization and variational inequalities.*

Evans, Dennis Neal, *Near atomic spaces.*

Gaspari, Gregory, *The cat map on prime lattices.*

Harris, William Richard, *Real even symmetric forms.*

Holly, Charles Anthony, *Results on the fixed points of multifunctions with applications to problems in optimization and equilibrium.*

Holly, Jan Elise, *Definable equivalence relations and disc spaces and algebraically closed valued fields.*

Huang, Margaret Janice Fernald, *Verification of the McKay-Alperin-Dade conjecture for the covering groups of the Mathieu group M_{22}.*

Johnsgard, Karin Luisa, *The structure of the Cayley complex and a cubic-time algorithm for solving the conjugacy problem for groups of prime alternating knots.*

Laradji, Abdellatif, *On P-radical P-blocks of group algebras.*

Peifer, David Eugene, *Artin groups of extra-large type are biautomatic.*

Reinhart, Georg, *Schanuel functions and algebraic differential equations.*

Spoonamore, Janet Hurst, *Least square methods for solving systems of inequalities with application to an assignment problem.*

STATISTICS

Lai, Kunjung, *On logistic regression approach to survival data and power divergence stratistics for life tables.*

INDIANA

Indiana University (4)

MATHEMATICS

Abe, Akira, *Rings characterized by pure-injective and pure-projective modules.*

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

Surdi, Rita Marie, *Decomposition of a compact symmetric space under a large group of isometries.*

Thomas, Owen, *Skew-Hermitian forms over quaternion algebras.*

Indiana University-Purdue University at Indianapolis (1)

MATHEMATICAL SCIENCES

Perea, Vicumpriya Sriyantha, *Real valued spectral flow in a type II_∞ factor.*

Purdue University (42)

INDUSTRIAL ENGINEERING

Ahn, Yoomin, *Deformation about sliding indentation in ceramics and its application to fine finishing.*

Aman, Amril, *On-line scheduling and dynamic task assignment.*

Avramidis, Athanassios N., *Variance reduction techniques for simulation with applications to stochastic networks.*

Benjaafar, Saifallah, *Modeling and analysis of flexibility in manufacturing systems.*

Chao, Chin-Jung, *Development of a methodology for optimizing the elicited knowledge.*

Flanigan, Mary Ann, *A flexible, interactive, graphical approach to modeling stochastic input processes.*

Hebbar, Rajadasa R., *Micro-hole drilling by electrical discharge machining.*

Jan, Hung-Kang, *Dynamic modeling of manufacturing process error patterns using distributed adaptive systems.*

Kim, Kang, *Cylindricity control in precision centerless grinding.*

Kreng, Bor-Wen, *Intelligent knowledge management environment for design and manufacturing.*

Lin, Yuh-Jiun Grace, *A distributed production control for intelligent manfacturing systems.*

Mou, Jong-I, *An adaptive methodology for monitoring and controlling of precision machining and on-machine inspection.*

Posey, Jack, *Pictorial and text editors for expert system rules.*

Rajan, Venkat, *Cooperation requirement planning for multi-robot assembly cells.*

Rembold, Bernhard, *An integrated framework for the design of material flow systems.*

Stanney, Kay, *Effects of diversity in field-articulation on human-computer performance.*

Webber, Detlef, *Information management architecture for an advanced integrated manufacturing enterprise.*

Zhao, Baijun, *A structured analysis and quantitative measurement of task complexity in human-computer interaction.*

MATHEMATICS

Fan, Kwai-Man, *On the fundamental groups of the complements of a class of projective plane curves.*

Feng, Xiaobing, *On miscible fluids in porous media and absorbing boundary conditions for electromagnetic wave propagation and on elastic and nearly elastic waves in the frequency domain.*

Henderson, Gregory D., *The cohomology of rank three Hopf algebras.*

Huang, I-Chiau, *Pseudofunctors on modules with 0-dimensional support.*

Kim, Mee-Kyoung, *Depth of Rees algebra and associated graded rings and intregrally closed ideals in two-dimensional regular local rings.*

Lee, Moohyun, *Proper holomorphic correspondences and the Szegő kernel in* $\mathbb{C}$.

Li, Shikang, *Generalized Gauss-Radau and Gauss-Lobatto formulae.*

Li, Xian-Jin, *The Riemann hypothesis for polynomials orthogonal on the unit circle.*

Qian, Xiaojun, *Topics in differential games: 1. The existence of saddle points in games of generalized pursuit and evasion; 2. Games with information lags.*

Rau, Re-Bin, *An empirical Bayes approach to multiple decision procedures.*

Sastry, Swati, *Upper bound for value distribution of quasi-meromorphic maps.*

Swanson, Irena, *Tight closure, joint reductions, and mixed multiplicities.*

Wu, Yinghwa, *Hilbert functions, reduction numbers, and relation types.*

Ye, Zhuan, *Topics in meromorphic functions.*

Zhou, Tonghang, *Algebraic Chern classes in de Rham cohomology.*

STATISTICS

Chang, Fu-Chuen, *A normal limit theorem for moment spaces, rigid designs and model selection for polynomial regression.*

Gatzouras, Dimitrios, *Self-affine fractals: deterministic and random constructions.*

Hong, Changkon, *Densities with optimal smoothness in moment problems.*

Kanniganti, Anu, *The frontier of a branching Brownian motion with killing.*

Kohatsu-Higa, Arturo, *Stochastic differential equations with jumps.*

Liao, Yuning, *On statistical selection procedures using prior information.*

Mukhopadhyay, Saurabh, *Inference and optimal design in Bayes and classical problems.*

Vidakovic, Branislav, *A study of the properties of computationally simple rules in estimation problems.*

Wang, Lei, *Correlations among coefficients in random coefficient linear regression models.*

University of Notre Dame (6)

MATHEMATICS

Bizaca, Zarko, *A family of exotic Casson handles and exotic* $\mathbf{R}^4$.

Cel, Jaroslaw, *Geometric characterizations of cones.*

Francis, Theresa, *A new presentation of the general linear group.*

Sokolovic, Zeljko, *The model theory of differential fields.*

Vlach, Alan, *Hyperarithmetical relations in expansions of recursive structure.*

Weller, Kirk, *Cohomology of twisted holomorphic forms of classical Lie groups.*

IOWA

Iowa State University (28)

MATHEMATICS

Bondari, Siamack, *Constructing the identities and the central identities of degree* < 9 *of the* $n \times n$ *matrices.*

Fan, Kaisheng, *Topics in nonlinear filtering.*

Fuad, Tengku Simonthy Renaldin, *Quasigroups, right quasigroups, coverings, and representations.*

Haliloglu, Engin, *Bounds for Faber coefficients of functions univalent in an ellipse.*

Hobart, Michael Frederick, *Vector lattices.*

Hummer, Frank Agrell, *Loop transversal codes.*

Jayawardena, Kurugamega Clement, *A solution method to a new class of inverse problems.*

Joseph, Elizabeth C., *Stability radii of two dimensional bilinear systems: Lyapunov exponent approach.*

Maheswaran, Thiagarajah, *Recovery of a one dimensional impedance profile from transmission data.*

Medepalli, Anand, *The assignment problem in distributed computing.*

Saberi-Nadjafi, Jafar, *N-dimensional Laplace transformations and their applications in partial differential equations.*

Zafer, Agacik, *Oscillatory and nonoscillatory properties of solutions of functional differential equations.*

STATISTICS

Adam, Abdoulaye, *Covariance estimation for characteristics of the Current Population Survey.*

Chakak, Abderrahmane, *Some methods of constructing multivariate distributions.*

Croos, Joseph H. R., *Robust estimation in measurement error modules.*

Garrigoux, Christian, *Reliability analysis of components subject to degradation failure with in-service inspections.*

Iversen, Philip, *Dynamic graphics for experimental design.*

Lemke, Klaus Wilhelm, *A Bayesian approach to sequential assembly experiments.*

Liu, Jingyu, *Comparing two groups of ranked objects by pairwise matching.*

Navvabpour, Hamid Reza, *Statistical methods for multivariate survival data.*

Remadi, Sellem, *On multivariate covariance component problems.*

Sabran, Muhamad, *Survival probabilities of genes or gametic types in partially selfing populations.*

Sanger, Todd Michael, *Estimated generalized least squares estimation for the heterogeneous measurement error model.*

Sriplung, Kai-One, *Mispricing in the Black-Scholes model: an explanatory analysis.*

Tollefson, Margot Helena, *Variance estimation under random imputation.*

Yansaneh, Ibrahim Sorie, *Least squares estimation for repeated surveys.*

Yoo, Seongmo, *On Pitman domination.*

Yu, Yunn-hwu, *Aspects of statistical multiple tolerancing.*

University of Iowa (19)

MATHEMATICS

Alarcon, Francisco, *The lattice of ideals of a semiring.*

Carraminana, Rodrigo, *j-planes.*

Fu, Qing-Qing, *Numerical solution for differential-algebraic equations.*

Jeon, Youngmok, *Numerical analysis of boundary integral equations for the harmonic and biharmonic equations.*

Lam, Clement, *Torsion theory on semigroup automata.*

Leung, Eric, *On resolving the multiplicity problem of tensor product of irreducible representations of symplectic group.*

Lin, Kwun-Shen, *On the structure of subplane covered nets.*

Lin, Ying-Hsiung, *Reflexive Banach spaces with symmetric bases are primary.*

Musicki-Kovacevic, Vesna, *Hyperfinite approximation of Brownian meander and Brownian excursion.*

Paolucci, Anna, *A new example of quantum group.*

Park, Jeanam, *Finitely generated monoids of fractional ideals and related topics.*

Quan, Xiu-Chi, *Representations of Hopf C*-algebras.*

Shi, Yixun, *Iterative methods for large scale nonlinear optimization.*

STATISTICS AND ACTUARIAL SCIENCE

Arteaga, Carmen de, *Order restricted tests apply as a quality control scheme.*

Bosch, Ronald, *Computational methods for regression quantiles with smoothing splines.*

Chang, Shaotung, *Statistical inference of multinomial distributions with order restriction.*

Lian, Ie-Bin, *The impact of variable selection procedure on the forced-in variable in linear and logistic regression.*

Nunez-Anton, Vicente, *Analysis of longitudinal data with unequally spaced observations and time dependent correlated errors.*

Park, Chul Gyn, *Statistical inferences for uniform stochastic ordering.*

KANSAS

Kansas State University (6)

MATHEMATICS

Ahn, Joseph Inkyung, *Elliptic interacting systems with nonlinear diffusions.*

Gan, Xiao-Xiong, *On approximate antigradients and universal primative functions.*

Vakil, Roozbeh, *A canonical combinatorial diagonalization of a subset of a finite integer lattice.*

STATISTICS

Chang, Kuo-Hsing, *One-sided multivariate permutation tests.*

Chui, Jaesung, *Hierarchical models.*

Remmenga, Marta, *On inference procedures in unbalanced split-plot designs.*

Wichita State University (2)

MATHEMATICS AND STATISTICS

Meyer, Ruth, *Approximation of solutions of free boundary problems for the p-Laplace equation.*

Tu, Renjin, *Order restricted inferences in polynomial regression.*

KENTUCKY

University of Kentucky (4)

MATHEMATICS

Haywood, Joel Dinsmore, *A characterization of universal images of trees.*

STATISTICS

Gray, David Eugene, *Multivariate nonlinear models with applications to compartmental models.*

Lu, Mei, *Stochastic compartmental model with incomplete data.*

O'Neill-Rayens, Mary Katherine, *Properties of Tango's index for detecting clustering in time.*

LOUISIANA

Louisiana State University (4)

MATHEMATICS

Asadian, Fariborz, *Banach space valued stochastic differential equations.*

Aucoin, Karen, *The congruence extension property, the ideal extension property, and ideal semigroups.*

Dumesnil, Jill, *The congruence property and related topics in semigroups.*

Lee, Kyoung-Sim, *On the characterization of finite-dimensional Hida distributions.*

University of Southwestern Louisiana (5)

MATHEMATICS

Covington, Judith Lynette, *Protopological groups.*

Lee, Enoch Kin Shun, *Prime ideals and prime radicals in near·rings.*

Lopez, Kathleen Domingue, *Endomorphisms and the lattice of group topologies.*

Ozalp, Nuri, *Global existence of solutions and quenching for parabolic mixed-boundary value problems.*

STATISTICS

Carpenter, David Mark, *Estimation of the smallest and largest of several exponential location parameters.*

MARYLAND

Johns Hopkins University (6)

BIOSTATISTICS

Carey, Vincent, *Regression analysis of large binary clusters.*

Huang, Ying, *Competing risks models: applications in epidemiology.*

Kiao, Jiangang Liao, *An empirical Bayes approach to smoothing in deconvolution with application to AIDS.*

MATHEMATICS

Pan, Chen-Li, *A generalization of Tate's local zeta functional equations to certain twisted Igusa local zeta functions.*

Wolman, Abel, *The geometric quantization of the moduli space of Reimann surfaces with even spin structure.*

Ying, Kefeng, *On the convergence of the adelic zeta functions associated to IRPV.*

University of Maryland Baltimore County (6)

MATHEMATICS AND STATISTICS

Chen, Gong, *Proximal and decomposition methods in convex programming.*

Clements, Joseph Harvey, III, *Recursive methods for multiple signal direction finding.*

Kelly, Robert James, *Nonnegative estimation of variance components in some ANOVA and time series models.*

Li, Shidong, *The theory of multiresolution analysis frames and applications.*

Niyogi, Anindita, *Some contributions to nonnegative estimation of variance components.*

Sanders, Melvin John, Jr., *Nonlinear filtering of a class of independent increment processes.*

University of Maryland, College Park (17)

MATHEMATICS

Bernstein, Erica, *Generalized Riesz products for pyramidal schemes.*

Bulatek, Wojciech, *Smooth, weakly mixing, weakly isomorphic but not isomorphic flows.*

Chen, Gang, *A nonparametric approach in estimating the incubation period of AIDS disease: bootstrap with covariates.*

Grief, Anthony, *When is saturation preserved?.*

Judge, Christopher M., *The Laplace spectrum of surfaces with cone points.*

Karagrigoriou, Alexandros, *Asymptotic efficiency of model selection procedures in time series.*

Leeb, Bernhard, *Metrics of nonpositive curvature on closed 3-manifolds and obstructions for the fundamental group of nonpositively curved N-manifolds.*

Li, Bao Qin, *Interpolation and value distribution in C^n.*

Li, Ta-hsin, *Multiple frequency estimation in mixed-spectrum time series by parametric filtering.*

Li, Yiwei, *The theoretical and numerical problems of plasticity and their applications.*

Liu, Biyue, *The linearized compressible Navier-Stokes equations: discontinuity of the solution and finite element methods.*

Liverance, Eric, *Heights of Heegner points in a family of elliptic curves.*

Petulante, Nelson, *Indefinite theta-functions and functional equations.*

Stark, Matthias J., *Hypersingular integrals and Lipschitz spaces.*

Testa, Mariella, *The analytical index of families of unbounded linear Fredholm operators and bifurcation for families of nonlinear operators.*

Vonta, Filia, *Efficient estimation of a structural parameter in a non-proportional hazards model in the two-sample problem.*

Zafra, Pablo Manuel Ruasol, *Theoretical and computational advances in the fictitious play method with applications to the solution of linear programming problems.*

MASSACHUSETTS

Boston University (4)

MATHEMATICS

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

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

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

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

Brandeis University (4)

MATHEMATICS

Brocco, Stefano, *On the non-vanishing of Θ-liftings from $U(1)$ to $U(1)$.*

Howe, Lawrence, *Conjectural lower bounds for the ranks of Mordell-Weil groups of elliptic curves in $PGL_2(z_p^n)$-extensions of Q.*

Jiang, Mingchang, *On the holomorphic linearization and equivariant Serre problems.*

Magid, Alexander, *Enumeration of convex polyominoes. A generalization of the Robinson-Schensted correspondence and the Dimer problem.*

Harvard University (34)

APPLIED SCIENCES

Balkanski, Cecile Tiberghien, *Actions, beliefs and intentions in multi-action utterances.*

Gau, Jyh-Lin Jack, *Knowledge-based software development for highly parallel computers.*

Gerbessiotis, Alexandros, *Topics in parallel and distributed computation.*

Hancock, Thomas Raysor, *The complexity of learning formulas and decision trees that have restricted reads.*

Kaklamanis, Christos Ioannis, *Optimal computing on mesh-connected processor arrays.*

Mavronicolas, Marios A., *Timing-based distributed computation: algorithms and impossibility results.*

Persiano, Giuseppe, *Interaction in zero-knowledge proof systems.*

Smith, Steven Thomas, *Geometric optimization methods for adaptive filtering.*

BIOSTATISTICS

Bienias, Julia, *Design and analysis of time-to-pregnancy studies.*

Dafni, Urania, *Evaluating surrogate markers of clinical outcome when measured with error.*

Fitzmaurice, Garrett Martin, *A likelihood-based method for analyzing longitudinal binary responses.*

Gauvreuau, Kimberlee, *Multivariate logistic regression and the analysis of data from observational studies.*

Hu, Fu-Chang, *A statistical methodology for analyzing the casual health effect of a time-dependent exposure from longitudinal data.*

Parzen, Michael Isaac, *Computational methods in robust regression.*

SenChaudhuri, Pralay, *Exact and Monte Carlo inference for contingency tables.*

Williamson, John, *Methods for the analysis of clustered, correlated data, familial and ophthalmological.*

MATHEMATICS

Belsley, Eric David, *Rates of convergence of Markov chains related to association schemes.*

Caporaso, Lucia, *On a compactification of the universal Picard variety over the moduli space of stable curves.*

Cheng, Shun-Jen, *Differentiably simple Lie superalgebras.*

Dummigan, Neil, *The second descent for certain families of Mordell-Weil lattices.*

Ernst, Kaspar D., *On the ends of the monopole moduli space.*

Finkelberg, Michael, *Fusion categories.*

Hwang, Jun-Muk, *Global nondeformability of the complex hyperquadric.*

Karshon, Yael, *Hamiltonian actions of Lie groups.*

Kotz, David Allan, *A p-adic computation of singular moduli.*

Liu, Kefeng, *On modular invariance and rigidity theorems.*

Magyar, Peter, *Formulas for generalized Kazhdan-Lusztig polynomials.*

Maslen, David K., *Fast transforms and sampling for compact groups.*

Tolman, Susan, *Group actions and cohomology.*

Wang, Ron (Rongguang), *Essays on vortices, knots and monopoles.*

Weinstein, Eric R., *Extension of self-dual Yang-Mills equations across the eighth dimension.*

STATISTICS

Blackwell, Thomas, *Estimating consensus DNA sequences.*

Glickman, Mark Evan, *Paired comparison models with time-varying parameters.*

Meehan, Patricia Marie, *A deconvolution approach towards modelling diurnal hormone series.*

Massachusetts Institute of Technology (27)

MATHEMATICS

Christiansen, Tanya J., *Scattering theory on compact manifolds with boundary.*

Chuah, Meng-Kiat, *Kaehler structures on K_c/N.*

Cowen, Lenore J., *On local representations of graphs and networks.*

Ehrenborg, Jöns Richard Gustaf, *Combinatorial methods in multilinear algebra.*

Ernström, Lars, *Duality for the local Euler obstruction with applications to real and complex singularities.*

Graham, William A., *Regular functions on the universal cover of the principal nilpotent orbit.*

Hajir, Farshid, *Unramified elliptic units.*

Kerswell, Richard R., *Elliptical instabilities of stratified, hydromagnetic waves and the Earth's outer core.*

Leung, Nai Chung Conan, *Differential geometric and symplectic interpretations of stability in the sense of Gieseker.*

Li, Zongyi, *Coadjoint orbits and induced representations.*

Lu, Qingyuan, *On wave interactions of rotational and irrotational flows.*

Marcus, Sherry E., *Contributions to higher recursion theory.*

Mekias, Mohamed, *Restriction to hypersurfaces of non-isotropic Sobolev spaces.*

Meng, Hsin-Fei, *Superfluidity and random media.*

Oliveira, Joseph S., *The theory of cubic lattices.*

Poe, Milja-Riitta, *A special S-unit equation.*

Schmid, Peter J., *Linear and nonlinear mechanisms in subcritical shear flow transition.*

Schulman, Leonard Y. J., *Communication in the presence of noise.*

Scott, Richard A., *Real, complex, and quaternionic toric spaces.*

Sun, Pu, *Interaction phenomena of waves in shear flows.*

Tabak, Esteban G., *Focusing of weak shock waves and the von Neumann paradox of oblique shock reflection.*

Tabakis, Evangelos, *Asymptotic and computational problems in single-link clustering.*

Toth, John A., *Various quantum mechanical aspects of quadratic forms.*

Tzimas, Dimitrios V., *A new framework of iterated forcing along a gap one morass at ω_1.*

OPERATIONS RESEARCH

Gopalan, Ramasubramanian, *Exploiting process flexibility in metal forming operations.*

Mondschein, Susana V., *Optimal sales strategies in stochastic, dynamic environments.*

Veatch, Michael, *Queueing control problems for production/inventory systems.*

Northeastern University (6)

MATHEMATICS

Diesel, Susan, *Same irreducibility and dimension theorems for families of height three Gorenstein algebras.*

Hammerstrom, LeRoy Philip, *A back-bayesian approach to the classical confidence interval.*

Moazzami, Dara, *Tenacity and its properties in stability calculation.*

Nadire, Abdelhag, *Nonsmooth conflicting control problems defined by ordinary differential equations.*

Wang, Lei, *Automorphisms of circulant and MCP graphs.*

Zhu, Qiji, *Problems with delayed and unbounded controls.*

University of Massachusetts, Amherst (6)

MATHEMATICS AND STATISTICS

Carter, Daniel J., *The minimal polygon for computing $Z_f(0, b)$ over a real quadratic base field.*

Galaktionova, Elena, *Characterizations of character sheaves for complex reductive algebraic groups.*

Guan, Bo, *Boundary value problem for surfaces of prescribed Gauss curvature and fully nonlinear elliptic equations.*

Hartt, Keith, *Bayesian estimation of surface information from radar images.*

Rossman, Wayne, *Constant mean curvature surfaces in Euclidean and hyperbolic 3-space.*

Sun, Guozhang, *The new bifurcation method for periodic solutions of time-dependent partial differential equations.*

MICHIGAN

Michigan State University (11)

MATHEMATICS

Ajmi, Hedi, *Harmonic Block functions on the upper half space.*

Cho, Junghee, *Independent sets in (r, s)-trees.*

Dempsey, Kathy J., *q-analogs and vector spaces.*

Fejzic, Hajrudin, *The Peano derivatives.*

Huang, Liang Jiao, *Parallel homotopy algorithm for large sparse symmetric eigenproblems.*

Li, Weiping, *Floer homology for connected sums of homology 3-spheres.*

Mikhalkin, Grigory B., *The classification of the smooth closed manifolds up to blowups.*

Zeng, Xiangfei, *Toeplitz operators on Bergman spaces.*

STATISTICS AND PROBABILITY

Abrouk, Nacer Eddine, *Some numerical methods for singular diffusions arising in genetics.*

Majumdar, Suman, *Asymptotically optimal and admissible estimators in compound compact Gaussian shift experiments.*

Zhu, Jin, *Asymptotic behavior of compound rules in compact regular and nonregular families.*

University of Michigan, Ann Arbor (32)

BIOSTATISTICS

Yuan, Weiying, *Multivariate parallel line bioassays in complete and incomplete block designs.*

INDUSTRIAL AND OPERATIONS, ENGINEERING

Adams, Paul, *The effects of protective clothing on worker performance: A study of size and fabric weight effects on range-of-motion.*

Choi, Thomas, *Salvation for U.S. Manufacturing? The role of value orientations and communication networks in spreading the continuous improvement (C) gospel.*

Frantz, James, *Effect of location, procedural explicitness, and presentation format on user processing of and compliance with product warnings and instructions.*

Gerth, Richard, *Demonstration of a process control methodology using multiple regression and tolerance analysis.*

Jay, Baron, *Dimensional analysis and process control of the body-in-white.*

Kerk, Carter, *Development and evaluation of a static hand force exertion capability model using strength, stability and coefficient of friction.*

Lee, Byoung-Ki, *Variation stack-up analysis using Monte Carlo simulation for manufacturing process control and specification.*

Liang, Ren, *Optimal sampling strategies for surface roughness measurement.*

Malen, Donald, *Engineering for the customer: decision methodology for preliminary design.*

Meller, Russell, *The single and multiple floor facility layout problem: applying simulated—annealing and mathematical—programming based heuristics.*

Noh, Seung Jong, *Performance evaluation of the distributed queue dual bus metropolitan area network.*

Sindi, Ahmed, *Acceptance of information technology: User acceptance of expert systems.*

Thompson, Deborah, *The perception of physical stress as a measure of biomechanical tolerance.*

Yeh, Ruey Huei, *Optimal maintenance policies for deteriorating systems.*

Yoon, Jae, *Continuous improvement of process control using regression analysis of observational data.*

MATHEMATICS

Albert, Martin K., *Triangle invariants from the quantum group $U_q(\mathrm{sl}_3\mathbb{C})$.*

Boklan, Kent D., *The asymptotic formula in Waring's problem.*

Doran, William F. IV, *Shuffling lattices.*

Glassbrenner, Donna, *Invariant rings of group actions, determinantal rings, and tight closure.*

McGuire, Elizabeth Camp, *On low-dimensional orbifolds & compact cores.*

Neumann-Coto, Max, *Least area tori in 3-manifolds.*

Nimershiem, Barbara E., *Flat manifolds appearing as cusps of hyperbolic manifolds.*

Nitsche, Monika, *Axisymmetric vortex sheet roll-up.*

Petrovic, Srdjan, *A dilation theory for polynomially bounded operators.*

Smith, Karen E., *Tight closure of parameter ideals and F-rationality.*

Williams, Lori J., *Uniform stability of kernels of Koszul cohomology indexed by the Frobenius endomorphism.*

Wright, Gretchen M., *The Reshetikhin-Turaev representation of the mapping class group.*

STATISTICS

Gasparini, Mauro, *Bayes nonparametrics for biased sampling and density estimation.*

Maligalig, Dalisay, *Weighting adjustments for unit nonresponse in sample survey.*

Tantiyaswasdikul, Chim, *Iostonic regression under sequential designs.*

Wei, Xiaoying, *Asymptotically efficient estimates of the index of regular variation.*

Western Michigan University (4)

MATHEMATICS AND STATISTICS

Dixon, Sherry, *Rank based procedures in the heteroscedastic linear model.*

Perry, Kimberly, *A critical examination of the use of preliminary tests in two-sample tests of location.*

Vakalis, Ignatious, *Multivariate quadrature on MIMD machines with shared or distributed memory.*

Winters, Steven, *Distances associated with subgraphs and subdigraphs.*

MINNESOTA

University of Minnesota, Minneapolis (20)

BIOSTATISTICS

Shih, Joanna, *Models and analysis for multivariate failure time data.*

MATHEMATICS

Anderson, Janet, *Resolutions of determinantal ideals associated with a symmetric matrix: a counterexample.*

Del Pino, Manuel Adrian, *Some semilinear elliptic systems without variational structure.*

Demoulini, Sophia, *Young measure solutions for a nonlinear heat equation of forward-backward type.*

Fishel, Susanna, *Nonnegativity results for generalized q-binomial coefficients.*

Guo, Yung-Jen, *The null boundary controllability for semilinear heat equations.*

Kuang, Jinghua, *Certain Siegel-Hilbert cuspforms of square-free levels are representable as theta series.*

Kumanduri, Ramanujachary, *Euler factors of global integrals.*

Ou, Biao, *Applications of variational method to problems in mathematical theory of liquid crystals and other areas.*

Pascual, Felino, *On periodic perturbations of uniform motion of a planetary ring.*

Smith, Samuel, *On the rational homotopy theory of function spaces.*

Sundquist, Thomas Scott, *Pfaffians, involutions and Schur functions.*

Sung, Cheng-Chih, *On a singular Dirichlet problem for the conformal Gaussian curvature equation.*

Tekman, Mehmet Okan, *Special values of L-functions attached to cuspforms on orthogonal groups of Hermitian type.*

Yan, Baisheng, *Topics in partial differential equations and the calculus of variations.*

Zou, Henghui, *The existence and non-existence and the asymptotic behavior of solutions of the equations of Chipot and Weissler.*

STATISTICS

Cheng, Yi, *Group sequential strategies in two-armed bandit problems.*

Muruzabal, Jorge, *A machine learning approach to a problem in exploratory data analysis.*

Seo, Han Son, *Robust Bayesian optimal designs.*

Wetzel, Nathan Richard, *Coherent inferences for multivariate data models.*

MISSISSIPPI

University of Mississippi (3)

MATHEMATICS

Campbell, Connie, *Minimal regular graphs with given girth pair.*

Hung Wei, Lin, *Independent sets in planar triangle-free graphs of maximum degree three.*

McColgan, Tamara, *Bipartite density of four-regular graphs.*

MISSOURI

St. Louis University (1)

MATHEMATICS AND COMPUTER SCIENCE

Roberts, Craig William, *The projective connections of T. Y. Thomas and J.H.C. Whitehead on the principal R-bundle of volume elements.*

University of Missouri, Columbia (4)

MATHEMATICS

Tam, Sik-Chung, *Application of the local theory for quasi-normed spaces.*

STATISTICS

Djojosugito, Rianto A., *Topics in nonparametric function estimation.*

Hu, Xiaomi, *LRTs for normal means constrained by two cones.*

Mukhopadhyay, Chiranjit, *Bayesian analysis of competing risks, change-point and related models.*

University of Missouri-Rolla (1)

MATHEMATICS AND STATISTICS

McCoy, Everett, *A class of entire functions generated by integral transforms: theory and applications.*

Washington University (10)

MATHEMATICS

Chen, Zhen-Qing, *On reflecting diffusion processes.*

Gornet, Ruth Elizabeth, *Spectral geometry on higher-step Riemannian nilmanifolds.*

Gu, Chi, *Besov space on non-homogeneous martingales.*

Laugesen, Richard Ian, *Extremal problems involving logarithmic and Green capacity.*

Liao, Ruijia, *Cyclic properties of the harmonic sequence of surfaces in $\mathbb{C}P^n$.*

SYSTEMS SCIENCE AND MATHEMATICS

Jankovic, Mrdjan, *Observer design and identification of nonlinear systems.*

Ramadorai, Arvind, *Task-level control of multi-arm robotic systems.*

Situmeang, Hardiv Harris, *Online stabilization of power systems in emergencies using observation decoupled reference and feedback linearization.*

Venkatasubramanian, Vaithianathan, *A taxonomy of the dynamics of large differential-algebraic systems such as the power system.*

Wu, Yuanlan, *Artificial intelligence methodologies for aerospace and other control systems.*

NEBRASKA

University of Nebraska-Lincoln (1)

MATHEMATICS AND STATISTICS

Schneider, John Martin, *Green's functions, Cauchy functions and cone theoretic eigenvalue results for differential equations.*

NEW HAMPSHIRE

Dartmouth College (5)

MATHEMATICS AND COMPUTER SCIENCE

Atwill, Timothy, *Diagonalizing spaces of Hilbert cusp forms.*

Bozeman, James, *On monotonic pairs of solid tori.*

Germann, Gabriele, *Genus one Whitehead manifolds and torus pairs of wrapping number two.*

Kostelec, Peter, *Non-holomorphic cusp forms.*

Langley, Larry J., *Interval tolerance orders and dimension.*

NEW JERSEY

Princeton University (12)

MATHEMATICS

Brock, Bradley, *Superspecial curves of genera two and three.*

Dafni, Galia, *Hardy spaces on strongly pseudoconvex domains in C^n and domains of finite type in C^2.*

Dou, Ze-Li, *Fundamental periods of certain arithmetic crisp forms.*

Eskin, Alex, *Counting lattice points on homogeneous spaces.*

Forni, Giovanni, *Construction of invariant measures and destruction of invariant curves for twist maps of the annulus.*

Khuri-Makdisi, Kamal, *Relations between Fourier coefficients of nonholomorphic Hilbert modular forms of half-integral weight and special values of Dirichlet series.*

Parmeggiani, Alberto, *Subunit balls for symbols of pseudodifferential operators.*

Sherry, Robert F., *A structure theorem for modules over $\mathcal{A}(2)\tilde{\otimes}\mathbf{F}_2[X, X^{-1}]$ and generalizations.*

Stalker, John, *Hölder and L^p estimates for $\bar{\partial}, \bar{\partial}_b$ on domains of finite type.*

Underwood, Alice, *Constructing barriers to minimal surfaces from polyhedral data.*

Wrobleski, Jaroslaw, *A counterexample to an estimate for a hypoelliptic operator.*

Zhong, Jiaping, *Harmonic analysis for some Schrödinger type operators.*

Rutgers University (14)

MATHEMATICS

Dai Pra, Paolo, *Space-time large deviations for interacting particle systems.*

Ke, Xin, *On Ramsey theory.*

Lin, Yuandan, *Lyapunov function techniques for stabilization.*

Liu, Wensheng, *Averaging theorems for highly oscillatory differential equations and the approximation of general paths by admissible trajectories for nonholonomic systems.*

Lu, Xiaoyun, *Hamilton cycles and games on graphs.*

Luo, Wenzhi, *Automorphic L-functions at special points.*

Neelson, Tejinder Singh, *Holomorphic extensions of CR functions and CR mappings.*

Riahi, Hasna, *Periodic orbits of N-body type problems.*

Roosen, Andrew Robert, *Modeling crystal growth in a diffusion field with fully-faceted crystals.*

Sessions, Stephen P., *Bipolynomial Hopf algebras associated to families of wreath products.*

Tang, Guoqing, *Regularity properties of time-optimal trajectories for certain classes of multi-input systems in low dimensions.*

STATISTICS

Cook, Dianne Helen, *Grand tour and projection pursuit: Exploring multivariate data using projections.*

Karwe, Vatsala Vachaspati, *The distribution of the supremum of integer moving average processes with application to the maximum net charge in DNA sequences.*

Yeh, Bai-Yau, *On resampling and data depth.*

Stevens Institute of Technology (1)

MATHEMATICS

Kingston, Kathleen, *Bianchi groups of class number one.*

NEW MEXICO

New Mexico State University (3)

MATHEMATICAL SCIENCES

Al-Ahmar, Mohamed, *Rotational stability of a rigid body in four dimensions.*

Stuart, Christopher, *Weak sequential completeness in sequence spaces.*

Wang, Ji-Sheng, *Minimax programming in Banach spaces.*

University of New Mexico (3)

MATHEMATICS AND STATISTICS

Pop, Florin, *Hochschild cohomology for finite von Neumann algebras.*

Wester, Michael James, *Symbolic calculation and expression swell analysis of matrix determinants and eigenstuff.*

White, Janis Elaine, *A new family of prior distributions under exponential sampling based on Laguerre polynomials.*

NEW YORK

CUNY, Graduate Center (6)

MATHEMATICS

Arroyo, Fangjun, *Category coherence for symmetric monoidal categories.*

Georgatos, Konstantinos, *Modal logics for topological spaces.*

Geshwind, Frank, *The Weil transform and ambiguity functions.*

Hom, Susan, *Spanning trees of 3-polytopal graphs.*

Misir, Dasarat Totaram, *Colimits in the proper homotopy category.*

Reller, Austin Fielding, *The Helmholtz equation in $S^1 \times R$.*

Clarkson University (3)

MATHEMATICS

Kawamoto, Shunji, *An inverse scattering transform and hodograph transformations for the oscillating two-stream instability equation.*

Ryan, Elizabeth Ellen, *Numerical homoclinic instabilities and the complex modified Korteweg-de Vries equation.*

Zhang, Fengman, *A biologically realistic neuronal simulator.*

Columbia University (9)

BIOSTATISTICS

Cheng, Shu-Lin, *Nonparametric of data obtained under case-cohort design.*

MATHEMATICS

Berger, Gabriel, *Hecke operators on noncongruence subgroups.*

Finkelstein, Elizabeth, *Incompressible surfaces in closed braid complements.*

Mao, Zhengyu, *Rank two Shimura correspondence and Salié sums.*

Rogers, Karen White, *Primitive simplices in $\mathbf{Z}^3$ and $\mathbf{Z}^4$.*

Stanford, Ted, *Finite-type invariants of knots, links, and graphs.*

Zhou, Yuging, *On the density of Sobolev maps between two manifolds.*

STATISTICS

Cadenillas, Abel, *Contributions to the stochastic version of Pontryagin's maximum principle.*

Molfino (McIntyre), Barbara Elsa, *Statistical modeling in paleoceanography: paleoestimation of upper water mass dynamics using marine microfossils.*

Cornell University (28)

APPLIED MATHEMATICS

Bond, Bradford Douglas, *An analysis of the horizontally forced spherical pendulum.*

Lubkin, Sharon Rebecca, *Circumnutation modeled by reaction-diffusion equations.*

Mitchel, Scott Alan, *Mesh generation with provable quality bonds.*

Stell, Laurel Liane, *A fixed domain method for injection governed by the Stokes equations.*

BIOMETRICS

Cleary, Richard J., *Models for selection bias in meta-analysis.*

Gerow, Kenneth G., *Model-unbiased, unbiased-in-general estimation of the average of a regression function.*

Reichert, Deborah L., *Variance component estimators for binary data derived from the dispersion mean-model.*

MATHEMATICS

Faught, John Darroch, *Local connectivity in a family of cubic polynomials.*

Govindachar, Suresh, *Explicit weight two motivic cohomology complexes and algebraic K-theory.*

Guo, Zhenchun, *The regularity of solutions to the heat equation over group-valued path space.*

Hall, Brian Charles, *The Bargmann-Segal "coherent state" transform for compact Lie groups.*

Lew, Vee-Ming, *The semistability at infinity for multiple extension groups.*

Li, Xiao'e, *Essays in mathematical economic theory.*

Reeves, Alyson April, *Combinatorial structure on the Hilbert scheme.*

Roberts, Rachael Clare Dedwydd, *Constructing taut foliations.*

Yang, Yue, *Priority methods and fragments of arithmetic.*

Yap, Weng-Yin, *A combinatorial geometry of the Whitehead torsion of finite Abelian groups.*

OPERATIONS RESEARCH AND INDUSTRIAL ENGINEERING

Healy, Kevin, *Optimizing stochastic systems: a retrospective deterministic approach.*

McShane, Kevin, *Primal-dual interior point algorithms for linear programming and the linear complementarity problem.*

Onn, Shmuel, *Discrete geometry, group representations and combinatorial optimization: an interplay.*

Rao, Uday, *Multi-stage identical job cyclic scheduling for repetitive manufacturing.*

Sox, Charles, *Modeling and analysis of quick response in production-inventory systems.*

Tang, Loon Ching, *Markov random walks with application to queues and confidence intervals related to the inverse Gaussian distribution.*

Tuncel, Levent, *Asymptotic behavior of interior-point methods.*

STATISTICS

Cleary, Richard Joseph, *Models for selection bias in meta-analysis.*

Reichert, Deborah, *Variance component estimators for binary data derived from the dispersion-mean model.*

Wang, Nai-Syin, *Semiparametric transform-both-sides regression models.*

Yeo, Kwee-Poo, *Density estimation for bivariate censored data.*

New York University, Courant Institute (14)

MATHEMATICS

Attie, Oliver, *Quasi-isometries of free Abelian covers.*

Birindelli, Isabella, *Second order elliptic equations in general domains: Hopf lemma and anti-maximum principle.*

Clark, Karen, *Characterizing the possible conductivity functions of composite materials.*

Girao, Pedro, *Convergence of a crystalline algorithm for motion by weighted curvature.*

Han, Qing, *Level sets of solutions to differential equations.*

Lewicki, Pawel, *Long time evolution of wavefronts in random media.*

Lin, Patrick, *On the numerical solution of the heat equations in unbounded domains.*

Lu, Shenglin, *Hydrodynamic scaling limits with deterministic initial configurations.*

Moura, Monique, *On the numerical calculation of electrostatic fields in composite media.*

Pavarino, Luca, *Domain decomposition algorithms for the p-version finite element method for elliptic problems.*

Schmitt, Hans, *Operators with nilpotent p-curvature.*

Taylor, Mark, *A high performance spectral code for nonlinear MHD stability.*

Tippett, Michael, *Tokamak equilibria and transport based on Grad's thirteen moment description.*

Vaninsky, Kirill, *Invariant Gibbsian measures of semilinear wave equations.*

Rensselaer Polytechnic Institute (12)

DECISION SCIENCE AND ENGINEERING SYSTEMS

Ali, Allahverdi, *Scheduling on multiple unreliable sources.*

Court, Mary, *Output analysis for simulation models in the presence of random disruptions.*

Lingayat, Sunil, *Models for order release in advanced manufacturing systems.*

Shao, Yuehjen, *A real time stochastic control system for process manufacturing.*

MATHEMATICAL SCIENCES

Cooper, Douglas, *Two-dimensional minimum free energy spectral estimation using duality.*

Gallagher, Timothy, *The visual appearance of convex surfaces.*

Graham, Jeffrey, *Two dimensional scattering and invariant imbedding.*

Hipfel, David, *The nonlinear differential complementarity problem.*

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

McComb, I-Heng, *Birfurcations of time-reversible, equivariant vector field families.*

Song, Jung-Hwan, *Optimizing a linear function over an efficient set.*

Tabak, John, *Statistical invariance and the modeling of multicomponent media.*

SUNY at Albany (4)

MATHEMATICS AND STATISTICS

Cummings, Paul E., *A bound on Van Kampen graphs.*

Dansereau, Andrew P., *General integral families and multipliers.*

Madigan, Kevin M., *Composition operators into Lipschitz type spaces.*

Underwood, Robert G., *Hopf algebra orders over a complete discrete valuation ring, their ideals, and extensions of R-groups.*

SUNY at Binghamton (7)

MATHEMATICAL SCIENCES

Bacon, Michael, *The nonabelian tensor square and powers of a group.*

Brodie, Marc, *Finite coverings by subgroups.*

Harrison, John Watkins, *The dynamics of piecewise endomorphisms of free monoids.*

Jonoska, Natasa, *Synchronizing representations of sofic systems.*

Li, Gang, *Almost sure convergence of stochastic approximation procedures.*

Schuck, Christopher H., *Some contributions to the study of nilpotent groups.*

Van Wyk, Leonard, *Graph groups are biautomatic.*

SUNY at Buffalo (9)

INDUSTRIAL ENGINEERING

Helander, Mary, *A discrete framework for modeling and analyzing HIV transmission dynamics.*

Mannur, Narasimhan R., *Implicit enumeration algorithms for solving 0–1 integer linear programming problems.*

Sivakumar, Raj, *Transportation of hazardous materials: a new modeling perspective.*

MATHEMATICS

Gall, Walter, *Lyapunov-Schmidt reduction for the planar Benard problem.*

Gao, Xiaobin, *Steady-state/Hopf bicriticality and mode interaction in the MHD Taylor-Couette system.*

Huang, Yu-Tai, *Regularity of solutions of differential and convolution equations in spaces of distribution with restricted growth.*

Qi, Jincheng, *The k-scattered spaces and the P_k-spaces.*

Strzebonski, Adam, *Introduction to O-minimal and semialgebraic groups.*

Zhou, Ying, *Study of propagation along nonuniform excitable fibers.*

SUNY at Stony Brook (19)

APPLIED MATHEMATICS

Albert, Jose Ramon G., *Reliability applications of the EM algorithm.*

Berger, Barbara, *The application of jackknife statistics to the problem of obtaining interval estimates of the recombination fraction in phase-unknown nuclear families.*

Canic, Suncica, *Shock wave admissibility for quadratic conservation laws.*

Chakrapani, Jaishankar, *Parallel heuristic solvability of quadratic assignment and related problems.*

Chu, Teng-Chiao, *Goodness of fit test for two-component normal mixture—development and characterization of.*

da Silva, Pantaleao Aluizio Fernandes, *The role of surface tension in multiphase flow regimes.*

Kim, Tae-Geun, *Numerical solutions for inverse electromagnetic scattering.*

Li, Jian-Hua, *Integral equation methods for mixed boundary problem of fracture mechanics.*

Pereira, Felipe, *Stochastic geology and porous media flow: theory and simulations.*

Wang, Hu, *Quasi-Gauss-Newton methods for solving nonlinear algebraic equations.*

Xu, Qiu-Ping, *Global structure of scaled-invariant solutions of the Riemannian for three-phase flow model.*

Yuan, Huixing, *The precision of the estimated discriminant score.*

MATHEMATICS

Bessa, Gregório Pacelli, *Differentiable sphere theorems for Ricci curvature.*

Elizondo-Huerta, Enrique Javier, *The Euler-Chow series for toric varieties.*

Gong, Donggeng, *L^2-analytic torsions, equivariant cyclic cohomology and the Novikov conjecture.*

Misiolek, Gerard, *Stability of flows of ideal fluids and the geometry of the group of diffeomorphisms.*

Traynor, Lisa Mae, *Symplectic embeddings of balls and the mapping problem.*

Zheng, Dechao, *Toeplitz and Hankel operators on the Bergman spaces of bounded symmetric domains and the Bergman-Fock-Segal spaces, and some disk algebras.*

Zhou, Shaojie, *Singular integral operators, contraction operators and principal currents.*

Syracuse University (2)

MATHEMATICS

Brown, Peter C., *Non-split extensions over hereditary artin algebras of finite representation type.*

Chen, Wei, *Cohomogeneity-two G-invariant minimal submanifolds, minimal cones and the Bernstein problem.*

University of Rochester (5)

MATHEMATICS

Cornea, Octavian Luca, *Cone-length and Lusternik-Schnirelmann category.*

Fajardo, Ricardo, *A limiting shape result for the heat equation with noise.*

Kim, In-Suk, *Resonances for difference operators.*

Ma, Yongjia, *The Ambrose symbol of Fourier integral operators.*

Tamaki, Dai, *Homological methods in the unstable chromatic phenomena.*

NORTH CAROLINA

Duke University (6)

MATHEMATICS

Carr, Danielle Denise, *Reaction-hyperbolic systems in one space dimension.*

Gordon, Michael Kenneth, Jr., *Perturbed scale-invariant initial value problems in one-dimensional dynamic elastoplasticity.*

Ivey, Thomas Andrew, *On solitons for the Ricci flow.*

McDonald, Michael Andrew, *Shock problems and particle chains.*

Mitchell, Ben C., *An empirical study of the effects of noise on the resolution of three-way linear mixtures.*

Tucker, Gary Allan, *Nonstandard representations of invariant means.*

North Carolina State University, Raleigh (21)

OPERATIONS RESEARCH

Sheu, Ruey-Lin, *Contributions to the generalized path-following approach to solving linear programming problems.*

STATISTICS

Arellano, Consuelo, *Testing for trend stationarity versus difference stationarity.*

Arumugham, Thangam, *Curvature and experimental design for the Weibull model.*

Bazus, Jeffrey Sandor, *Instrumental variable estimation in generalized linear measurement error models.*

Bentley, James Arthur, *Quantum chemical investigation of the torsional potential in the neutral organic phosphite and phosphate esters.*

Doerge, Rebecca W., *Statistical methods for locating quantitative trait loci with molecular markers.*

Etchison, Tonya Lynn, *Model identification and selection techniques for stationary ARMA processes.*

Fenton Navarro, Victor Manuel, *Rates of convergence of Hermite expansion density estimators.*

Gonzalez Farias, Graciela Maria, *A new unit root test for autoregressive time series.*

Gray, Gerry W., *Misspecification bias and tests for the number of components in finite mixtures.*

Kendall, William Louis, *Robust design in capture-recapture sampling: modelling approaches and estimation methods.*

Kramer, David Alan, *Estimating the probability of southern pine beetle outbreaks via Bayesian-updated probabilistic cellular automata.*

Kwon, Se-Hyug, *Hypothesis testing and confidence intervals in group testing.*

Liu, Huimei, *Uniformly more powerful tests of hypotheses determined by linear inequalities for a bivariate normal mean.*

McSorley, Ellen O., *Maximum likelihood estimation with data from step-stress accelerated life.*

Muse, Spencer Vance, *Testing for equality of nucleotide substitution rates.*

Pastrana-Zuniga, Jose, *A model for the heat transfer processes that occur during canning, electrical resistance and scraped surface heat exchanger aseptic processing, of food products with large particles.*

Ramos Quiroga, Rogelio, *Estimation of nonlinear mixed effects and random coefficient models.*

Shin, Key-Il, *A unit root test for multivariate autoregressive time series.*

Sierra Cavazos, Jorge Homero, *Tests of hypotheses defined by linear inequalities for elliptically contoured familes.*

Teng, Hwa-Jen, *Environmental determinants of intra and interspecific competition in the container-breeding mosquitoes Aedes albopictus and Aedes triseriatus.*

University of North Carolina, Chapel Hill (23)

BIOSTATISTICS

Davis, Randy L., *Evaluation of statistical methods for a 4 period 2 treatment crossover migraine headache trial with specific attention to alternative models for categorical data and carryover effects.*

De Oliveira, Nelson, *A nonparametric multivariate test of homogeneity based on a U-statistics of degree (2, 2).*

Grady, James J., *Structural covariance matrices for incomplete longitudinal data.*

Hadug, Alula, *Repeated measures data analysis with nonnormal outcomes.*

Meibohm, Anne Ruth, *Test of treatment effect using the Cox proportional hazards model with imputed covariate data.*

Sakurai, Emilia, *Simultaneous nonparametric tests in two-way layouts.*

Thorn, Michael D., *Automated classification of fatal cardiovascular end points in large scale multi-center clinical trials.*

Wallace, Dennis Dale, *An approximate F statistic for testing population effects in longitudinal studies via mixed models.*

MATHEMATICS

Brawner, James, *The Gaussian map Φ_K for curves with special linear series.*

Day, Colin, *A topological construction of Vassiliev style invariants for links.*

Ganter, Frieda, $-P \cdot P$ *for surfaces* $Z^n = f(x, y)$, *and inequalities involving* $-P \cdot P$.

Mast, Maura, *Closed geodesics in 2-step nilmanifolds.*

Molinek, Donna, *Asymptotic measures for skew products of Bernoulli shifts with Morse-Smale diffeomorphisms.*

Nunn, Carroll, *Numerical algorithms for liquid crystal droplet problems.*

OPERATIONS RESEARCH

Burk, Roger, *Full and partial multicommodity cuts.*

Wang, Ben-Hao, *Simultaneous minimization of several functions with application in economics and game theory.*

Yarberry, Lonnie Stephen, *Incorporating a dynamic batch size selection mechanism in a fixed-sample size batch means procedure.*

STATISTICS

Benchekroun, Kamal, *Association-balanced arrays with applications to experimental design.*

Brown, Jason, *A finite sampling plan, central limit theorem, and bootstrap algorithm for a homogeneous and isotropic random field on the 3-dimensional sphere.*

Das, Shubhabrata, *Restricted canonical correlations.*

Lund, Robert, *Some limiting and convergence rate results in the theory of dams.*

Ming, Zhang, *Adaptive statistical analysis of repeated measurements designs.*

Sherman, Michael, *Subsampling and asymptotic normality for a general statistic from a random field.*

NORTH DAKOTA

North Dakota State University (1)

MATHEMATICS

Burns, David, *On the convergence of ergodic averages over zero density sequences in topological dynamics.*

OHIO

Air Force Institute of Technology (1)

MATHEMATICS AND STATISTICS

Elewa, Salah Amin M., *Development of an environment for software reliability model selection.*

Bowling Green State University (4)

MATHEMATICS AND STATISTICS

Bobek, Ludmila, *Groups acting on join semilattices.*

Chen, De-Xin, *Bayesian computation methods for the poly t density.*

Johnson, Bruce E., *Asymptotic tests for the equality of several correlation matrices.*

Koswatta, M. S. R., *The word problem for certain two-generator subgroups of the group of order automorphisms of the real line.*

Case Western Reserve University (6)

MATHEMATICS AND STATISTICS

Sabbaghan, Masoud, *Non-coalescent minimal distal flows.*

Tolmatz, Leonid, *Exact tail asymptotics of a certain Wiener functional.*

OPERATIONS RESEARCH

Agbegha, Gerald Yinkefe, *An optimization approach to the auto-carrier problem.*

Arunapuram, Sundararajan, *Vehicle routing and scheduling problem for full loads.*

Ilyes, Amy Louise, *Using linear programming to solve convex quadratic programming problems.*

Viswanathan, S., *Integrated inventory and transportation policies.*

Kent State University (3)

MATHEMATICS AND COMPUTER SCIENCE

Alexopoulos, John, *Weakly compact sets in Banach spaces.*

Liszka, Kathy, *Generalizing bitonic and odd-even merging networks.*

Sharma, Naveen, *Synthesis of sequential and parallel programs for finite element analysis.*

Ohio State University (23)

MATHEMATICS

Anderson, Michael, *Hecke algebras associated to Weyl groups.*

Bishop, Greg, *Ultrafilters generated by a closed set of functions and K-covering sets.*

Gethner, Ellen, *Rational period functions for the modular group and related discrete groups.*

Haaland, Inger, *Uniform distribution of generalized polynomials.*

Huang, Xiaoming, *On external properties of algebraic polynomials.*

Icaza, Maria Ines, *Effectiveness of positive define quadratic forms.*

Kane, Stephen, *Significance test of probability non-stationarity of security price returns.*

Lang, Cheng Lien, *Existence and stability of a planar wave solution to a combustion model.*

Liu, Kecheng, *Stationary subsets of $[\aleph]^{\aleph-n}$.*

Narayani, Laksmhi, *Composition codes and designs.*

Sheu, Shin-Pyng, *Blacklund transformation and homoclinic solutions to the coupled nonlinear Schrödinger system.*

Sofer, Adriana, *P-adic interpolation of square roots of central values of Hecke L-series.*

Spieler, Barry, *Non-positively curved orbihedra.*

Szabo, Tamas, *Sequences and additive functions.*

Tang, Shu-Leung, *Iwasawa invariants over quadratic fields.*

Yue, Zhao, *On the edge reconstruction of planar graphs.*

Zha, Xiaoya, *Closed 2-cell embeddings of 2-connected graphs in surfaces.*

Zong, Susan Bong, *A model for the AIDS epidemic.*

STATISTICS

Fei, Lin, *On a stochastic optimization technique: Stochastic probing.*

Maa, Jen-Fue, *Simulation-based parameter estimation for multivariate distribution.*

Padilla, Mari Lourdes R., *The generalized Hellinger transform as a measure of information and its role in the comparison of statistical experiments.*

Zheng, Ming, *The use of copulas in dependent competing risk theory.*

Zhu, Yuangen, *Robustness of designs and robust optimality of designs.*

Ohio University (2)

MATHEMATICS

Cho, Myung Hyun, *Conditions under which countable-compact-covering maps are compact-covering.*

Saleh, Mohammad Ali, *A study on weakly projective modules.*

OKLAHOMA

Oklahoma State University (4)

MATHEMATICS

Flood, Timothy Wayne, *The functional equation of the twisted L-function associated with an automorphic form on $GL(3, \mathbb{R})$.*

STATISTICS

Maier, Christoph, *A new sequential allocation method.*

Salihima, Astini, *The study of simultaneous optimization for several responses.*

Steiner, Robert, *Three estimation procedures for the parameter K of the negative binomial.*

University of Oklahoma (4)

BIOSTATISTICS AND EPIDEMIOLOGY

Duke, James C., *Sample size and the estimated odds ratio in logistic regression: a study with repeated samples from a low birth weight population.*

Murray, Cynthia K., *A feasibility study of the use of three PC expert system shells in epidemiologic research.*

MATHEMATICS

Nelson, Graydon, *Faithful representations of Lie algebras over power series.*

White, Frances T., *Controllability of nonlinear retarded functional differential equations.*

OREGON

Oregon State University (4)

MATHEMATICS

Cho, Yong-kum, *Multiparameter maximal operators and square functions on product spaces.*

Park, Young Kou, *On perturbation and location of roots of polynomials by Newton's interpolation formula.*

STATISTICS

Delongchamp, Robert, *Analysis of epidemiological data with covariate errors.*

Lebow, Partricia K., *Estimation of discriminant analysis error rate for high dimensional data.*

University of Oregon (6)

MATHEMATICS

Clauss, Jon M., *Elementary chains of invariant subspaces of a Banach space.*

Ford, Benjamin, *Overgroups of irreducible linear groups.*

Jones, Amelia, *Composite two-generator links.*

Liu, Chen, *Tensor products of finite and infinite dimensional representation of quantized enveloping algebras.*

Lutgen, Jeffrey, *Flatness of higher order jet bundles of differentiable manifolds.*

McKenzie, Thomas, *Separable polynomials and weak henzelizations.*

PENNSYLVANIA

Carnegie Mellon University (4)

MATHEMATICS

Cheng, Chih-Wen, *The Lavrentiev phenomenon and its applications in nonlinear elasticity.*

Matias, José Carlos Pedro Cardoso, *On the Stefan problem with crystalline interfacial energy.*

Matsko, Vincent J., *Mathematical concepts of special relativity.*

McGillen, Donald James, *A low velocity approximation for the relativistic Vlasov-Maxwell system.*

Drexel University (1)

MATHEMATICS AND COMPUTER SCIENCE

Salsburg, Michael Allen, *The formulation and implementation of a stochastic model that explores HIV infection.*

Lehigh University (5)

MATHEMATICS

Dabeet, Elias A., *Tests for goodness of fit based on folded kernel density estimation.*

Janssen, Jeannette C. M., *Even and odd Latin squares.*

Kropp, Karl V., *Asymptotics of a free boundary problem resulting from the determination of an amortizing loan's refinance option.*

McKayle, Camille A., *Approximation of solutions to certain types of differential equations using polynomial operators.*

Rose, Kimberly J., *Generalized Reed-Muller codes and finite geometries.*

Pennsylvania State University (18)

MATHEMATICS

Arlinghaus, Francis Anthony, *Involutions in classical groups and related topics.*

Bouwsma, Janet, *Semigroups presented by a single relation.*

Chaiyasena, Arjuna Peter, *Radar and sonar ambiguity functions and group theory.*

Chen, Kuo-Jye, *An asymptotic formula in partition theory.*

Jirari, Alouf, *Second-order Sturm-Liouville difference equations and orthogonal polynomials.*

Linares, Jose Filipe, *On nonlinear dispersive equations.*

Marcone, Alberto Giulo, *Foundations of BQO theory and subsystems and second order arithmetic.*

Poletaeva, Elena, *Integrability of the analogues of conformal and Riemannian structures on the classical superspaces.*

Rajopadhye, Shubha Vilas, *Propagation of bores.*

Schlindwein, Charles William, *Consistency of Suslin's hypothesis, a non-special Aronszajn tree, and GCH.*

Sellers, James Allen, *A generalization of the partition function.*

Torre, Carlos Alberto, *On a theorem of Kirillov.*

Youssfi, El Hassan, *Geometric function theory of several variables, operator theory in π_κ-spaces, and the indefinite moment problem.*

STATISTICS

Anderson, George, *Generalized Wilcoxon methods.*

Basu, Srabashi, *Model-based estimation of attributable risk for categorical data.*

Kannan, Nandini, *Estimation of directions of arrival in signal processing models.*

Macchiavelli, Raul, *Likelihood-based procedures and order selection in higher order antedependence models.*

Petkova, Eva, *Generalized procedures for analysis of collapsibility in generalized linear models.*

Temple University (10)

MATHEMATICS

Gao, Bo, *Shape preserving approximation by rational functions.*

Han, Jongsook, *The topology of the Radon transform on the Grassmannian and its restrictions.*

Knappenberger, Johathan C., *Simultaneously forcing two conditions.*

Simonelli, Italo, *Interacting particle systems.*

STATISTICS

Barber, Beth, *Topics in group testing.*

Chakravarty, Alaka, *On Bayesian analysis of bivariate contingency tables using prior information of association.*

Kwong, Koon, *Evaluation and applications of the multivariate normal distribution with a singular negative product correlation structure.*

Lai, Sue-Ling, *Spline-based survival estimation for censored and truncated data with covariates.*

McCool, John, *The analysis of a two way layout with two parameter Weibull response.*

Shen, Frank, *Robust and boostrap testing procedures for bioequivalence.*

University of Pennsylvania (10)

MATHEMATICS

Colding, Tobias Holck, *A. D. Alexandrov's spaces in Riemannian geometry.*

Escher, Christine, *Minimal isometric immersions of spherical space forms into spheres.*

Jensen, Kjeld Knudsen, *Foundations of an equivariant cohomology theory for Banach algebras.*

Katz, Nets, *Noncommutative determinants and applications.*

Lau, Chi-Fong, *An arithmetic capacity on Grassmannian varieties.*

Li, Jiangfan, *Extremal unit vector fields and extremal almost complex structures.*

Pan, Liu-Hau, *Existence and uniqueness of volume-minimizing cycles in Grassman manifolds.*

Schwachhoefer, Lorenz, *Connections with exotic holonomy.*

STATISTICS

Gu, Xing, *A comparison and evaluation of recent developments for multivariate matching in observational studies.*

Marcus, Sue M., *Parallel randomized and nonrandomized clinical trials.*

University of Pittsburgh (11)

BIOSTATISTICS

Tan, Lingshi, *A multivariate growth curve model with random effects and $CAR(1)$ errors.*

Wang, Shu-Chuan, *Developments in the two-event modeling of cohort data with time-dependent exposure patterns: analytical methods for fitting and ROC analysis for model assessment.*

MATHEMATICS AND STATISTICS

Barnhart, Huiman Xie, *Models for multivariate random length data with applications in clinical trials.*

Barnhart, Ronald E., *Generalized metric properties of topological semigroups.*

Law, Chun-Kong, *On rational solutions of the Painleve equations.*

Lee, Ca-Sing, *Quadrature approximation in nonlinear structural errors-in-variables model.*

Li, Song-Ying, *Boundary value problems for equations of complex Monge-Ampere type.*

Lu, You-Min, *Asymptotics and connection formulas of the fifth Painleve transcendent.*

Qian, Shixian, *Algorithms for isotonic regression and related theory.*

Raghavan, Shuba, *A singular perturbation problem arising from the Kuramoto-Sivashinsky equation.*

Sunmonu, Adefemi, *Numerical analysis of coupled nonlinear partial differential equations modelling electro-thermal applications.*

RHODE ISLAND

Brown University (19)

APPLIED MATHEMATICS

Frankel, Paul Henry, *On coupling between neural cells.*

Goldman, Daniel, *Spatiotemporal chaos in the complex Ginzburg-Landau equation and other studies in nonlinear dynamics.*

Katsoulakis, Markos, *Boundary value problems for 2nd order nonlinear PDEs.*

McEneaney, William Michael, *Connections between risk-sensitive stochastic control, differential games, and H^{00} control: the nonlinear case.*

Miller, Neil, *Matrix models in population biology.*

Perakis, Georgia, *Geometric, interior point, and classical methods for solving finite dimensional variational inequality problems.*

Rogerson, Audrey, *Stability and dynamics of miscible displacements in porous media flows under gravity.*

MATHEMATICS

Arone, Gregory Zvi, *The Taylor tower of the stable homotopy of the mapping spaces.*

Cai, Hongsheng, *Dispersive smoothing effects for generalized and high order KdV type equations.*

Cervone, Davide P., *Vertex-minimal simplicial immersion of surfaces into three-space.*

Chen, Yen-Mei Julia, *Descent via 3-isogenies on elliptic curves.*

Chua, Seng-Kiat, *Arithmetic of etale quotient varieties.*

Guo, Yan, *Boundary problems for the Vlasov-Maxwell system.*

Lee, Chaujun (Isaac), *Generalized affine rotation surfaces.*

Lim, Nancy Lee, *L^p-Dirichlet problem for second order elliptic operators with nonsmooth coefficients.*

Lydakis, Manos George, *Fixed point problems, equivariant stable homotopy, and a trace map for the algebraic K-theory of a point.*

Men, Guo-wu, *The stability theorem for smooth concordance imbeddings.*

Sauerberg, James John, *Kummer theory for Lubin-Tate formal groups.*

Towse, Christopher, *Weierstrass points on cyclic covers of the projective line.*

SOUTH CAROLINA

Clemson University (11)

MATHEMATICAL SCIENCES

Bibelnieks, Eric, *Backbone network design and some results on tolerance graphs.*

Bibelnieks, Tracy A., *Time series analysis of variation in fiber assemblies.*

Carlson, Rolf E., *Three dynamical systems for hypergraph factorization and consistent labeling.*

Dunlap, Karen L., *Algorithms for numerical shade sorting.*

Getachew, Teodros, *A recursive algorithm for multiple-objective network optimization with time-variant link costs.*

Johnson, Terri A., *New linear programming-based solution strategies for the quadratic assignment problem.*

Knisely, James E., *A study of cyclic gossiping in graphs.*

Lassiter, Julie B., *Persistency in 0-1 optimization.*

TenHuisen, Matthew L., *Generalized Lagrangian duality multiple objective programming.*

Zheng, Deda, *On polychrome tree in edge-colored complete graphs.*

Zheng, Quan, *Integral global optimization of robust discontinuous functions.*

University of South Carolina (8)

MATHEMATICS

Bdeir, Yousef, *P-minimal and P-closed spaces.*

Day, Colin, *Spectral mapping theorems for fractionally integrated semigroups.*

Hsiao, Chia-Chang, *Rectangular wavelets and compression of operators.*

Kyriazis, George, *Wavelet decompositions and spaces of functions.*

Lin, Yan-Chyuan, *Planar graphs with few vertices of small degree.*

Yarnall, Kenneth, *Sampling theorems and wavelet bases.*

STATISTICS

Diniz, Carlos A. R., *Segmented plane regression.*

Lee, Robert Edwin, *The comparison of successive effects.*

TENNESSEE

Memphis State University (3)

MATHEMATICAL SCIENCES

Bowman, Dale D., *Analysis of developmental data using parametric, non-parametric and Bayesian bootstrap procedures.*

Fathnezhad, Faramarz, *Generalized degree and connectivity conditions that imply edge Menger path systems.*

McDaris, Robert L., *On the existence of periodic solutions to certain functional differential equations.*

University of Tennessee (1)

MANAGEMENT SCIENCE

Pillai, Rekha, *The travelling salesman problem with one additional constraint.*

Vanderbilt University (4)

MATHEMATICS

Al-Khayer, Adnan, *One and two compartment mathematical models of mechanical ventilation.*

Bass, Thomas Preston, *Globals of graph algebras.*

Boyd, Sheri Renee Jordan, *Interassociativity.*

Markus, Lisa Rosann, *Degree, neighbourhood and claw conditions versus traversability in graphs.*

TEXAS

Rice University (10)

COMPUTATIONAL AND APPLIED MATHEMATICS

Abd El-Aziz, Mohammedi, *Numerical safe-guarded use of the implicit restarted Lanczos algorithm for solving nonlinear eigenvalue problems and its monotonicity analysis.*

Alexandrov, Natalia, *Multilevel algorithms for nonlinear equations and equality constrained optimization.*

Lee, Eva, *Solving structured 0/1 integer program arising from truck dispatching scheduling problems.*

Maciel, Maria, *A global convergence theory for a general class of trust region algorithms for equality constrained optimization.*

MATHEMATICS

Richardson, Kenneth S., *Critical points of the determinant of the Laplace operator.*

Wang, Shiah-Sen, *Singularities of subanalytic sets and energy minimizing maps.*

Zweck, John, *Compactification problems in the theory of characteristic currents associated with a singular connection.*

STATISTICS

Go, Kerry Wayne, *Nonparametric estimation of transitions in cancer.*

Minnotte, Michael Charles, *A test of mode existence with applications to multimodality.*

Spears, Floyd Martin, *Multi-stage designs in dose-response studies.*

Southern Methodist University (6)

MATHEMATICS

Ho, Ka Ho (Eric), *Hamiltonian systems with dissipations: basins of attractions and nearly homoclinic orbits.*

Hosea, Michael, *Studies in the numerical solution of ordinary differential equations.*

STATISTICAL SCIENCE

Cheng, Qiu-Chang, *Transfer function model and GARMA II model.*

Han, Joonghee, *Estimation in variance components.*

Hong, Sunho, *Parameter estimation for kriging models.*

Qiu, Wenzi, *Rank tests for unbalanced two-way ANOVA.*

Texas A&M University (8)

MATHEMATICS

Bagley, Scott William, *Polynomial near-rings, distributor and J2 ideals of generalized centralizer near-rings.*

Bui, Dat Duc, *The inverse electromagnetic scattering problem for a spatially homogeneous, dispersive and dissipative medium.*

Caudill, Lester Frank, Jr., *Identification and reconstruction of potentials in two space dimensions.*

Farmer, Jeffrey Darrell, *Extensions and applications of infinite dimensional Banach space theory.*

Hudson, Timothy Dean, *Ideals in triangular AF algebras.*

Yu, Fan, *Information-based complexity applied to numerical transport theory.*

STATISTICS

Bartlett, Randy John, *Measures of capability under non standard conditions.*

Gomez Meza, Marco Vinicio, *Estimation of variance components and diagnostic analysis in unbalanced mixed linear models.*

Texas Tech University (2)

MATHEMATICS

Chang, Guang-Hwa, *Nonparametric analysis of covariance in block designs.*

He, Jianqiu, *A root locus methodology for parabolic boundary control systems.*

University of Houston (3)

MATHEMATICS

Jia, Wenyao, *Iterative methods for the Hartree and Hartree-Fock eigenproblems.*

Nasser, Mahmoud George, *Numerical methods for multibody elastic systems and contact.*

Vinod, Vaidyanath, *Structural stability of Riemann solutions for a multiphase kinematic conservation law model that changes type.*

University of North Texas (8)

MATHEMATICS

Badawi, Ayman Rateb, π-*regular rings.*

Dawson, Charles Bryan, *Convergence of conditional expectation operators and the compact range property.*

Dawson, Dan Paul, *Concerning integral approximations of bounded finitely additive set functions.*

Emerson, Sharon Sue, *Overrings of an integral domain.*

Gadam, Sudhasree, *Existence and multiplicity of solutions for semilinear elliptic boundary value problems.*

Jiminez, Debora Maria Tejada, *Universal branched coverings.*

Kim, Keehwan, *Steepest descent for partial differential equations of mixed type.*

Yoon, Young-Jin, *Characterizations of some combinatorial geometries.*

University of Texas at Arlington (5)

MATHEMATICS

Kim, Jeongsook, *Estimation of regression coefficients and influence function in multivariate regression models with prior information.*

Nagarajan, Nanayanaswamy, *Solution concepts for cooperative games with leading coalitions.*

Rahimi, Amin Massoud, *Some results on the stable range in commutative rings.*

Shibberu, Yosi, *Discrete-time Hamiltonian dynamics.*

Wyatt, Bryant Morgan, *Molecular dynamics simulation of colliding microdrops of water.*

University of Texas, Austin (13)

MATHEMATICS

Chang, Kuei-Fang, *Wavelet analysis on Hilbert spaces.*

Clark, Gordon Wayne, *Microstructure modeling of fluid flow in a layered medium.*

Cook, John Douglas, *Diffusion models with microstructure and secondary flux.*

Holt, Jeffrey John, *Radial analogues of some extremal Beurling-Selberg functions.*

Liu, Zhuxing, *On operators in (L^*).*

Menegatto, Valdir Antonio, *Interpolation on spherical spaces.*

Morin, Chris Lyman, *A characterization of handlebodies, homotopy and homology unknotting numbers of a knot.*

Packer, Lindsay Arthur, *The regularized layered medium equation.*

Patton, Robert Max, *Incompressible punctured tori in the complements of alternating knots.*

Pinner, Christopher G., *On the number of irreducible factors of a polynomial.*

Schafer, Robert P., Jr., *Rigidity for dynamically defined Cantor sets and expanding circle maps.*

Vona, Bi Roubolo, *Parallel multilevel iterative models.*

Yu, Yuan, *Automated proofs of object code for a widely used microprocessor.*

UTAH

Brigham Young University (2)

MATHEMATICS

Swenson, Eric Lewis, *Negatively curved groups and related topics.*

Xun, Jian Ping, *Metastable patterns for the Cahn-Hilliard equation.*

University of Utah (9)

MATHEMATICS

Bratten, Timothy Clark, *Realizing globalizations of Harish Chandra modules on a generalized flag manifold.*

Dillon, Robert Henry, *A mathematical model of vertebrate limb development.*

Kasparaian, Azniv, *Variations of Hodge structure of maximal dimension with associated Hodge numbers $H^{2,0} > 2$ and $H^{1,1} = 2Q+1$.*

Kim, Joo-Mok, *Series representations and self-similar processes.*

Ma, Tina Seaon, *Some goodness-of-fit indices and their distributions in structural equations.*

McGough, Jeff, *On solution continua in quasilinear elliptic problems.*

Szábo, Endré, *Complete intersection subvarieties of general hypersurfaces and divisorial log terminal singularities.*

Tang, Yuanhua, *Mathematical modeling of signal transduction and pattern formation.*

Westhoff, Randall F., *Curves and normal functions on threefolds with numerically effective anticanonical bundles.*

Utah State University (2)

MATHEMATICS AND STATISTICS

Xu, Yuhua, *Disconjugacy and oscillation theory of linear differential and difference equations.*

Ye, Shumin, *Linear operators that preserve qualitative matrix structures.*

VIRGINIA

George Mason University (6)

APPLIED AND ENGINEERING STATISTICS

Ball, Celesta G., *Two-stage path smoothing using L-spline estimation.*

Morad, Osama, *Migratory global scheduling in a network environment.*

Priebe, Carey E., *Nonparametric maximum likelihood estimation with data-driven smoothing.*

OPERATIONS RESEARCH AND ENGINEERING

Anderson, Paul Bernard, *Nonlinear optimization methods for X-ray crystallographic phase determination.*

Tibbs, Richard Warner, *A class of methods solving networks of queues with dynamic routing probabilities.*

Yarrow, Leslie-Ann, *Obtaining minimum-correlation latin hypercube sampling plans using discrete optimization techniques.*

Old Dominion University (1)

MATHEMATICS AND STATISTICS

Kerr, Gilbert, *Boundary value problems in rectilinearly anisotropic thermoelastic solids.*

University of Virginia (14)

APPLIED MATHEMATICS

Curfman, Lois V., *Solution of convective-diffusive flow problems with Newton-like methods.*

Freitag, Lori A., *Parallel solution of the generalized Helmholtz equation on distributed memory architectures.*

McMillan, Christine A., *Minimax game theory problems for partial differential equations.*

Nayar, Narinder, *Computation of selected eigenvalues of the eigenvalue problem.*

Polignone, Debra A., *A birfurcation approach modeling cavitation in anisotropic nonlinearly elastic solids.*

Richman, Shu-Mei C., *Parallel performance analysis of iterative methods for solving nonsymmetric linear systems.*

Smith, Anne C., *Lagrangian and Eulerian models for fiber motion in industrial processes.*

Warne, Paul, *Foundations for the nonlinear Boussinesq problem and the theory of Lie groups as applied to the equations of nonlinear elastostatics.*

MATHEMATICS

Abbott, Stephen D., *Vectorial Hankel operators with Toeplitz weights.*

King, Daniel, *Linear and quadratic Jordan superalgebras.*

Robbins, Marian, *Composition operators between Hilbert spaces of analytic functions.*

Shaker, Richard, *Fixed sets of commuting involutions.*

Spickler, Donald, *Universally coefficient domains and their relation to the cancellation problem for rings.*

Winstead, Mark, *Torsion in the cohomology of mapping spaces.*

Virginia Commonwealth University (2)

BIOSTATISTICS

Mensah, Robert D., *Consistent estimators of the variance-covariance matrix in the GMANOVA model with missing data.*

Wagner, Pamela, *Threshold models in risk assessment for a combination.*

Virginia Polytechnic Institute and State University (15)

MATHEMATICS

Ellingsen, Harold, *Growth of algebras, words, and graphs.*

Inch, Scott Eugene, *Precise energy decay rates for some viscoelastic and thermo-viscoelastic rods.*

Lei, Peng, *Cauchy problem of diffusive Vlasov-Enskog equations.*

Liu, Rong, *Perturbation theory of Boltzmann equations.*

Rakowska, Joanna, *Tracing parametrized optima for inequality constrained nonlinear minimization problems.*

Spies, Ruben Daniel, *Mathematical modelling, finite dimensional approximations and sensitivity analysis for phase transitions in shape memory alloys.*

Zhang, Xiaohong, *Optimal feedback control for nonlinear discrete systems and applications to optimal control of nonlinear ordinary differential equations.*

STATISTICS

Baran, Gary Steven, *A two-stage experimental design procedure under dispersion effects.*

Heise, Mark Alan, *Optimal designs for a bivariate logistic regression model.*

Jo, Jinnam, *Construction and properties of Box-Behnken designs.*

Kim, Yoon, *A response surface approach to data analysis in robust parameter design.*

Mays, D'Arcy Paul, III, *Design and analysis for a two-level factorial in the presence of dispersion effects.*

Savarese, Paul Tenzing, *New design comparison criteria in Taguchi's robust parameter design.*

See, Kyoungah, *Three-mode principal component analysis of designed experiments.*

Sutherland, Sindee, *Sequential design augmentation with model misspecification.*

WASHINGTON

University of Washington (16)

BIOSTATISTICS

Arnold, Alice, *Non-parametric approaches to the reliability of psychometric tests in Alzheimer's disease.*

Emond, Mary Jane, *Efficient estimation in the generalized semilinear model.*

Huang, Chisheng, *A system for graphical data analysis.*

Li, Yoichi, *Generalized linear model with measurement error.*

Mancl, Lloyd, *Regression analysis of correlated discrete and continuous data: evaluation of an estimating equation approach.*

Rosenkrantz, Susan, *Use of the Bayes factor for model evaluation in a hierarchical Poisson model for health event counts.*

MATHEMATICS

Baxter, James Arthur, *The Demailly phenomenon for certain holomorphic fiber bundles over annuli.*

Gao, Ping, *Some problems in elliptic diffusions.*

Qian, Maijian, *Variable metric proximal point algorithm: convergence theory and applications.*

Tomas, Brian M., *Theory and applications of frequency selective wavelets.*

Xu, Yeren, *Extension problems in several complex variables.*

STATISTICS

Huges, James Patrick, *A class of stochastic models for relating synoptic atmospheric patterns to local hydrologic phenomena.*

Lin, Shili, *Markov chain Monte Carlo estimates of probabilities on complex structures.*

Schimert, James, *A high order hidden Markov model.*

York, Jeremy Charles, *Bayesian methods for the analysis of misclassified or incomplete multivariate discrete data.*

Zhou, Haibo, *Auxiliary and missing covariant data in failure time regression.*

Washington State University (6)

MATHEMATICS

Cochran, Lyle Eric, *Orthogonal Laurent polynomials with an emphasis on the symmetric case.*

Jones, Charles H., *Triangle intersection graphs and visibility graphs.*

Luo, Dali, *Some properties of the Kaplan-Meier estimator and a method to find system reliability.*

Peterson, Blake Ellis, *Integer polyhedra and the perfect box.*

Raines, Allen Crawford, III, *A class of Hamiltonian-symplectic methods for solving the algebraic Ricatti equation.*

Zhang, Limin, *Mathematical stability analyses on the effect of suspended particles on Raleigh-Bénard convection.*

WEST VIRGINIA

West Virginia University (1)

MATHEMATICS

Seldomridge, Gary A., *Generalized disconnection numbers.*

WISCONSIN

Marquette University (1)

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

Harris, Ondine A., *The polymerase chain reaction: a stochastic model, methods of quantification, and applications to HIV.*

University of Wisconsin-Madison (30)

MATHEMATICS

Dzamonja, Mirna, *A set-theoretic approach to some problems in measure theory.*

Haloupek, William J., *Differentiation and analytic continuation of functions defined on arbitrary sets in the plane.*

Ingenoso, Marc J., *Stability analysis for certain queueing systems and multi-access communication channels.*

Jarvis, Peter M., *The effect of quadratic maps of R^2 on the uniform invertibility of the Fourier transform of functions initially in $A(R^2)$.*

Kaddah, Deborah S., *Uniformity in the recursively enumerable degrees and infima in the degrees of the differences of recursively enumerable sets.*

Kim, Sang Dong, *Preconditioning collocation method by finite element method.*

Lee, Chanyoung, *Stability in modules for classical Lie superalgebras.*

Li, Wenbo, *Small ball estimates for Gaussian measures with applications to strong limit theorems.*

Maia, Liliane de Almeida, *Problems on waves in stratified fluids.*

Massey, Jennifer Jean Quinn, *Colorings and cycle packings in graphs and digraphs.*

McDonald, Judith Joanne, *Combinatorial spectral theory of M-matrices.*

Muller, Carl D., *On the polynomial hulls of the unions of convex sets in $\mathbb{C}^n$.*

Newman, William Glen, *Nonlinear string and beam equations.*

Peters, Karl M., *Non-restricted representations of classical Lie algebras.*

Reisewitz, Tammo M., *Hyperarithmetical relations and existentially decidable models in recursive model theory.*

Shin, Dongho, *Fast solvers for finite difference approximations for the Stokes and Navier-Stokes equations.*

Tan, Chik How, *Codes in affine matrix schemes.*

Tao, Jinhua, *Multi-type branching random walk.*

Wang, Qing, *On the tori and Cartan subalgebras of Lie algebras of Cartan type.*

Williams, John C., *Character correspondences in finite groups.*

Wong, Sze-Ping, *Preconditioning of nonconforming finite element methods for second-order elliptic boundary value problems.*

Zhang, Ende, *Functional differential equation models in epidemiology with theoretical and numerical studies.*

Zhao, Kang, *Density of the dilates of a shift-invariant subspace.*

STATISTICS

Gao, Feng, *On combining data from multiple sources with unknown relative weights.*

Guven, Bilgehen, *Estimation in simple linear regression with a nested error.*

Jung, Sin-Ho, *A test for adequacy of quasi-likelihood and survival analysis with median regression models.*

Omori, Yasuhiro, *Random effects in survival analysis.*

Reboussin, David, *Exact inference for multivariate linear rank statistics on complete and incomplete data.*

Ritter, Christian, *Modern inference for nonlinear least squares regression.*

Yap, Sook Fwe, *Partially nonstationary multivariate autoregression moving average model.*

University of Wisconsin-Milwaukee (6)

MATHEMATICAL SCIENCES

Avirappattu, George Anthony, *On the boundary integral equation methods for an extended time-harmonic Maxwell type system.*

Karmakar, Satyajit, *Compositions of random Mobius transformations and their applications.*

Liu, Youming, *Construction and sampling in wavelet subspaces.*

Schmitter, Joel, *Asymptotic distribution of standardized empirical processes under the proportional hazards model.*

Stalder, Shubhangi N., *Properties of strong band graded rings.*

Yang, Jianping, *Newton's method and dynamical systems.*

WYOMING

University of Wyoming (6)

MATHEMATICS

Munasinghe, A. Ranjith, *Composants, unstable sets, and minimal sets of inverse limit spaces.*

Shen, Jian, *Mixed finite element methods: analysis and computational aspects.*

Tsaur, Tzong, *Variants of symmetric block designs.*

Wang, Hong, *Eulerian-Lagrangian localized adjoint methods: analyses, numerical implementations and their applications.*

STATISTICS

Chao, Li, *Multidimensional estimating of covariance function and spectrum.*

Montopoli, George J., *The analysis of discrete choice set experiments with correlated error structure and other related logistic topics.*

Doctoral Degrees Conferred 1991–1992
Supplementary List

The following list supplements the list of thesis titles published in the November 1992 *Notices*, pages 1042–1060 and the April 1993 *Notices*, page 327.

OKLAHOMA

University of Oklahoma (1)

BIOSTATISTICS AND EPIDEMIOLOGY

Kenny, Susan J., *The effect of dichotomization of a continuous variable in the linear logistic regression model.*

TEXAS

University of Texas at Arlington (2)

MATHEMATICS

Mahdavi, Mehran, *Contribution to the theory of functional differential equations involving abstract Volterra operators.*

Shin, Jun Yong, *Study of some nonlinear differential equations arising in elasticity.*