Doctoral Degrees Conferred 1987–1988

The annual AMS list of doctoral degrees in the mathematical sciences and related subjects reports 855 degrees conferred between July 1, 1987, and June 30, 1988 by 207 departments in 143 universities in the United States and Canada. Each entry contains the name of the recipient and the thesis title. The numbers in parentheses following the names of universities have the following meanings: the first number is the number of degrees listed for that university; the next seven numbers are the number of degrees in the categories of 1. Pure mathematics (i.e., algebra, number theory, analysis, functional analysis, geometry, topology, logic, or probability); 2. Statistics; 3. Computer science; 4. Operations research; 5. Applied mathematics; 6. Discrete mathematics; 7. Other.

ALABAMA

Auburn University
(1;1,0,0,0,0,0,0)

FOUNDATIONS, ANALYSIS AND TOPOLOGY

Corazza, Paul Joseph, *Independence results concerning two ideals over the reals.*

University of Alabama, Tuscaloosa
(5;2,1,0,2,0,0,0)

MANAGEMENT SCIENCES AND STATISTICS

Strong, George Quentin, *Estimators for the exponential reliability function.*

MATHEMATICS

Kang, Joo Ho, *On the unicellularity of certain operators.*

Lee, Jae Hak, *Convex analysis of set functions.*

Lee, Jun Yull, *Lagrange multipliers and duality theorems of multiobjective optimization with set functions.*

Shin, Hyunyong, *Local conjugacy in some classes of locally finite groups.*

ALASKA

University of Alaska
(1;0,0,0,0,1,0,0)

UNIVERSITY OF ALASKA

Olmsted, Coert D., *The algebra of interpolation with applications in finite multivariate polynomial, countable real harmonic, and countable complex holomorphic interpolation.*

ARIZONA

University of Arizona
(3;2,0,0,0,0,1,0)

MATHEMATICS

Davey, Robert Michael, SMJ *analysis of monodromy fields.*

Hadida, Ahmed M., *A partially ordered semigroup of Boolean spaces.*

Modisett, Matthew Clayton, *A characterization of the circularity of certain balanced incomplete block designs.*

ARKANSAS

University of Arkansas
(1;1,0,0,0,0,0,0)

MATHEMATICAL SCIENCES

Bello, Mohammed Yahuza, *On some categories of groupoids.*

CALIFORNIA

California Institute of Technology
(5;2,0,0,0,2,0,1)

APPLIED MATHEMATICS

Cox, Robert W., *A model for stress-driven diffusion in polymers.*

Ward, Michael J., *Asymptotic methods in semiconductor device modeling.*

MATHEMATICS

Glaffig, Clemens Heinz, *Smoothness of the integrated density of states for random Schrödinger operators on multidimensional strips.*

Hardarson, Askell, *Doublewell tunneling via the Feynman-Kac formula.*

Hungerford, Gregory Jude, *Boundaries of smooth sets and singular sets of Blaschke products in the little Bloch class.*

Claremont Graduate School
(1;0,0,0,0,1,0,0)

MATHEMATICS

Fryer, Samuel Harvey, *Mathematical models of typhoid fever.*

Stanford University
(13;0,0,0,4,2,0,7)

ENGINEERING-ECONOMIC SYSTEMS

Ardell, Gary Lynn, *Discovery process modeling.*

Bonduelle, Yann Frank, *Aggregating expert opinions by resolving sources of disagreement.*

Chen, Hong, *Stochastic flow networks: Bottleneck analysis, fluid approximations and diffusion limits.*

Del Sol-Guzman, Patricio, *Dominant firm and competitive fringe interaction in exhaustible resource markets.*

Derby, Stephen, *An approach to using experts in decision analysis.*

Gupta, Akhil, *Technology, power and the state in a complex agricultural society: The green revolution in a North Indian village.*

Parikh, Prashant, *Language and strategic inference.*

Park, Chulho, *Interactive marketing decision system for a highly differentiated product in a growing market.*

Sauer, Gerald, *Flexibility and surplus/shortage decisions.*

Strait, R. Scott, *Decision analysis of strategic information.*

Teisberg, Elizabeth Olmsted, *Capital investment strategies under regulation: A binomial option pricing approach.*

Wan, Shao-Hong, *Maximum path return method.*

Ye, Yinyu, *Polynomial time algorithms for linear and quadratic programming.*

University of California, Berkeley

(51;30,3,1,6,4,0,7)

BIOSTATISTICS

Bacchetti, Peter, *Binary additive isotonic regression.*

Galai, Noya, *Models of insulin kinetics in juvenile diabetes: Parameter identifiability, estimation and experimental design.*

Raz, Jonathan, *Testing for no effect when estimating a smooth function by nonparametric regression: A randomization approach.*

Smith, Bruce R., *The neurophysiological quantal hypothesis.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Birger, S. Chet Bradley, *Approximate stochastic behaviour of a voice/data multiplexer.*

Chow, Tat-Chi, *Forecasting severe nuclear accidents.*

Goncalves, Jose Fernando, *Continuous time analysis of production planning and scheduling models.*

Khellaf, Mallek, *On the partitioning of graphs and hypergraphs.*

Lee, Kyung Keun, *Inventory management by nonlinear order quantity pricing.*

Popken, Douglas Allen, *Multiattribute multicommodity flows in transportation networks.*

Resende, Mauricio Guilherme DeCarvelho, *Shop floor scheduling of semiconductor wafer manufacturing.*

MATHEMATICS

Aslaksen, Helmer, *Laws of trigonometry on* SU(3).

Baker, Peter Fritz, *Embedding games.*

Botelho, Maria Fernanda, *Mappings of the annulus.*

Cheung, Chi Keung, *Negative holomorphic sectional curvature and hyperbolic manifolds.*

Detre, Peter Andrew, *Multipliers of weighted Lebesgue spaces.*

Dziurzyński, Ryszard Stanisław, *Patches of electrons and electron sheets for the l-D Vlasov-Poisson equation.*

Gao, Feng, *Probabilistic analysis as a paradigm for error estimation in automatic integration.*

Grzegorczyk, Piotr Maria, *Topics in dynamical systems.*

Kapouleas, Nicolaos, *Constant mean curvature surfaces in* E^3.

Kearnes, Keith Alan, *Topics in algebra: Injective completeness, fine spectra and relative presentability.*

Kobayashi, Mei, *Discontinuous inverse Sturm-Liouville problems with symmetric potentials.*

Kusner, Robert Bernard, *Global geometry of extremal surfaces in three-spaces.*

Lamoureux, Michael Philip, *Analytic isomorphism of transformation group* C^**-algebras.*

Leung, Ka Hin, *Orderings, valuations on division rings and generalizations of Albert's theorem.*

Lorenzini, Dino Jacques, *Degenerating curves and their Jacobians.*

Lotto, Benjamin Aron, *Multipliers of* $H(B)$.

May, Michael Kerry, *Triangular hereditary rings and localization with respect to Sylvester rank functions.*

Mbanefo, Uyammadu, *Mixed boundary-value problems of stress singularities in the neighborhood of a fractured and deboned fibre embedded in a infinite elastic matrix.*

Melo, Severino Toscano do Rego, *Comparison algebras with periodic symbols.*

Moura Neto, Francisco Duarte, *Interactions of topological defects in a dissipative system.*

Naparst, Harold Lance, *Radar signal choice and processing for a dense target environment.*

Oh, Young-Guen, *Nonlinear Schrödinger equations with potentials: Evolution, existence and stability of semiclassical bound states.*

Ouyang, Chung-Hsing, *On Casson's invariant of oriented homology three-spaces.*

Pai, Chikaung, *Quasitriangular operators in* II_∞ *factors.*

Pedrosa, Renato Hyuda de Luna, *On the uniqueness of isoperimetric regions in cylindrical spaces.*

Povse, Jerome John, *Amalgams of type* $(L_3(2), \Sigma_3)$.

Prapavessi, Despina Theophanis, *On Jacobi sum Hecke characters of conductor a power of* 2.

Reach, Michael Keith, *Difference relations for solutions to differential equations.*

Smith, Tara Lynn, *Some 2-groups arising in quadratic form theory and their generalizations.*

Spira, Michel, *Witt rings and Galois groups.*

Stevenhagen, Peter, *Class groups and governing fields.*

Williamson, Clifton James, *Odd degree polynomials with dihedral Galois groups.*

Wong, Yan Loi, *Band-passes and the ARF invariant of a knot.*

Wright, Paul Emerson, *Darboux transformations, algebraic subvarieties of Grassman manifleds, commuting flows and bispectrality.*

STATISTICS

Chaudhuri, Probal, *Asymptotic theory of nonparametric estimation of conditional quantiles.*

de la Peña Diaz Infante, Victor Hugo, *L-bounds of best possible type for martingales, degenerate U-statistics, and certain linear forms.*

Krebs, William Bernard, *A diffusion designed on a fractal state space.*

Liu, Richard Chieng, *Geometry in robustness and nonparametrics.*

Marchetti, Ettore, *Statistical inference in doubly stochastic point processes.*

Song, Jae Kee, *Statistical inference in models based on the percentile lifetime function.*

University of California, Davis

(7;1,4,0,0,1,1,0)

MATHEMATICS

Anastas, Miranda, *Strong universal covers.*

Hawkes, Dorothy Albertson, *Structure of* Tor *and related problems.*

Peters, Craig Steven, *Application of the* WKB *method to stochastic problems in operations research and biology.*

STATISTICS

Clark, Matthew Merrill, *A Bayesian procedure for selecting the best multinomial cell with the option of equality.*

Gangopadhyay, Ashis K., *Nonparametric estimation of conditional quantile function.*

Pawitan, Yudianto, *Estimation of spectral components and deconvolution of time series.*

Tendick, Patrick H., *Bias correction and measures of confidentiality in data security.*

University of California, Irvine
(3;2,0,0,0,0,0,1)

MATHEMATICS

Dang, Truong Cao, *Classification and isometries of operator triple systems.*

Speis, Athanasios, *Smoothness of the density of states in the Anderson model on a one-dimensional strip.*

Thomé, Bernhard Peter, *$\aleph_1$-separable groups, Kaplansky's test problems, and endomorphism rings.*

University of California, Los Angeles
(17;8,2,0,1,3,0,3)

BIOSTATISTICS

Poon, Wai-Yin, *Analysis of polytomous variable models: Maximum likelihood and related approaches.*

Roe, Denise Joanne, *The design of longitudinal studies to assess population changes in pulmonary function.*

Su, Hong-Lin, *Estimation of standard errors in multivariate models when some observations are missing.*

MATHEMATICS

Agnan, Christine, *Statistical curve fitting by Fourier techniques.*

Bennish, Joseph, *Mixed initial boundary value problems for hyperbolic equations with constant coefficients.*

DuBose, Derrick, *The equivalence of determinacy and sharps.*

Henderson, Janet Nora, *Isospectral periodic potentials in dimensions three and higher.*

Jamshidian, Mortaza, *Applications of the conjugate gradient methods in statistical computing.*

Kim, Kang-Tae, *Domains with non-compact automorphism groups.*

Lee, Jeffrey Marc, *Eigenvalues of the Laplacian on Riemannian manifolds.*

Mostrel, Marco Mosche, *On some numerical schemes for transonic flow problems.*

Saidi, Samira, *Perfect error-correcting codes.*

Sun, Ziqi, *On the uniqueness for multi-dimensional inverse problems in partial differential equations.*

Wang, Ju, *Projectivities and minimal blocks in algebraic systems.*

White, Gregory Brian, *The nonrelativistic limit of the Dirac operator: Splitting of the operator and classification of the discrete spectrum.*

Yao, Shuntian, *On strategic market games.*

Yoshiwara, Bruce William, *Bounded harmonic functions and distinguished evaluations.*

University of California, Riverside
(1;1,0,0,0,0,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Sroka, Joseph James, *pNA games through infinite-dimensional Banach spaces.*

University of California, San Diego
(10;6,1,0,0,0,0,3)

MATHEMATICS

Alcaraz, John Edward, *On the simultaneous estimation of Poisson means.*

Hickling, Fred, *A class of slice links in dimension four whose complement is homotopy equivalent to a wedge of circles.*

Karabeg, Almira, *PQ-tree data structure and some graph embedding problems.*

Lin, Xiao-Song, *Artin-type representation theorems and Milnor's $\bar{\mu}$-invariants.*

Morandi, Patrick James, *Valuation rings in division rings and central simple algebras.*

Rush, Jason Alexandre, *Packing.*

Toby, Ellen Haynes, *Birth and death of a Markov process under a stationary measure.*

Tran, Cam Van, *Matrix representations of binary connected equicardinal matroids.*

Trostle, Jonathan Todd, *Involutions, acyclic orientations, and chromatic polynomials of graphs.*

Zack, Randal Lee, *Some calculations of Hochschild homology.*

University of California, Santa Barbara
(3;2,1,0,0,0,0,0)

MATHEMATICS

Cordy, Cliff Bernard, III, *Intersection conditions and near intersection conditions for path derivatives.*

Rodrigues, Brian Charles, *Fenchel duality in frechet spaces.*

STATISTICS AND APPLIED PROBABILITY

Zalkikar, Jyoti N., *Some problems in reliability theory.*

COLORADO

Colorado State University
(11;5,3,0,0,2,0,1)

MATHEMATICS

Calderon, Graciano, *The free surface of a magnetic fluid.*

Cooper, Kevin D., *Multi-boundary alternating direction collocation.*

Cooper, Sandra C., *Continued fraction solutions to Riccati differential equations.*

Kakakhail, Haniya, *Generalized equivalence of matrices over Prüfer domains.*

Krussel, John William, *Graphs with few subgraphs.*

Nath, Sudhir R., *On classification of semi-grouprings.*

STATISTICS

Balch, Alfred H., Jr., *Stochastic models for population growth with catastrophes.*

Kazempour, Mohammad Kazem, *Confidence bounds on functions of variance components in unbalanced models.*

Liu, Jian, *Regression,* ARMA *processes, and bilinear time series with finite and infinite variance.*

Mandarino, Joseph Vincent, *The trader's problem.*

Ting, Naitee, *Confidence intervals on functions of variance components.*

University of Colorado, Boulder
(3;2,0,0,0,0,0,1)

MATHEMATICS

Harnett, Gerald, *Global potentials for zero rest mass fields.*

Jones, Earl P., *Some multiplicative subgroups of the positive rationals.*

Ohring, Peter, *Solvability of left invariant differential operators on certain solvable Lie groups.*

University of Colorado, Denver
(1;0,0,0,0,0,1,0)

MATHEMATICS

Hefner, Kim Anita Sidwell, *Directed biclique covers and partitions of digraphs.*

University of Northern Colorado
(7;0,5,0,1,0,0,1)

MATHEMATICS AND APPLIED STATISTICS

Chalermmeprasert, Chaiyasit, *A study of Thai student polyphasic values by factor and multiple linear regression analyses.*

Ibrahim, Ibrahim, *On large sample observations and estimation of the population variance.*

Intarapanich, Pensri, *Discrimination patterns & statistical procedures in faculty salaries.*

Intarapanich, Pichai, *A biased estimator with smaller* MSE *for* σ^2.

Mguni, Burton, *On extreme values and a conditional F test for the one-way classification.*

Oriedo-Tobias, Jose, *An application of the Box-Jenkins transfer function methodology for prediction of stock market prices.*

Slotnick, Henry, *Multivariate analysis of laboratory test results.*

CONNECTICUT

University of Connecticut
(4;0,3,0,0,1,0,0)

MATHEMATICS

Uma, Shama, *The transformation equations of the electromagnetic field vectors in accelerated systems.*

STATISTICS

Cantwell, Patrick Joseph, *Optimal procedures for detecting a change in a Bernoulli parameter when sampling is expensive.*

Darmanto, Suryoguritno, *Sequential estimation problems in order to compare several negative exponential populations.*

Liberman, Silvi, *Some sequential aspects for the multivariate Behrens-Fisher problem.*

Wesleyan University
(1;0,0,0,0,0,0,1)

MATHEMATICS

Feldman, David, *Families of paths in the plane that connect all point pairs and other topics.*

Yale University
(8;6,2,0,0,0,0,0)

MATHEMATICS

Cummins, Thomas Edward, *A pseudo-differential calculus associated to 3-step nilpotent groups.*

Horvath, Jozsef, *Invariants of certain unipotent groups.*

Liu, Li-qian, *The decomposition numbers of* Suz(q).

Magyar, Peter, *Characteristic group and essential convergence of infinite series of independent random variables.*

Przebinda, Tomasz, *The oscillator duality correspondence for the pair* $O(2,2)$, Sp$(2,R)$.

Sauter, John Kurt, Jr., *Isomorphisms among monodromy groups and applications to lattices.*

STATISTICS

Escobar, Michael David, *Estimating the means of several normal populations by nonparametric estimation of the distribution of the means.*

Wan, Jim, *Competing risks with covariates.*

DELAWARE

University of Delaware
(2;0,1,0,0,1,0,0)

MATHEMATICAL SCIENCES

Morgenthien, Elizabeth Ann, *An alternative method for the analysis of qualitative data obtained in embryo/fetal toxicity studies.*

Root, Robert Griffith, *Boundary value problems for degenerate elliptic-parabolic fourth order equations.*

DISTRICT OF COLUMBIA

American University
(2;0,0,0,0,1,0,1)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Montemezzi, Marco A., *Green's function methods for the polyharmonic equation.*

Smith, Elaine Christina, *Culture in elementary mathematics education for African-American learners: Enhancing achievement through curricular design.*

George Washington University
(2;0,0,0,2,0,0,0)

OPERATIONS RESEARCH

Ahmed, Mohamed Abdel-Aziz, *Composite analytical/simulation models for multi-echelon repairable item systems.*

Polster, Robert Samuel, *A technique for interpolating system response to parametric perturbations in simulation.*

Howard University
(2;2,0,0,0,0,0,0)

MATHEMATICS

Davenport, Dennis, *The algebraic properties of closed subsemigroups of ultrafilters on a discrete semigroup.*

Umoh, Hanson, *The ideal of products in* $\beta S/S$.

FLORIDA

Florida State University
(4;0,4,0,0,0,0,0)

STATISTICS

Danaher, Peter, *Estimating the audience for a magazine advertising campaign.*

Rueda, Norma Graciela, *Generalized convexity in nonlinear programming.*

Santana, Paulo, *Finite horizon singular control and a related two-person game.*

Utikal, Klaus, *Inference for a nonlinear semimartingale regression model.*

University of Florida
(6;2,2,0,1,1,0,0)

INDUSTRIAL AND SYSTEMS ENGINEERING

Sepil, Canan Ayse, *Dual simplex algorithms for network flow problems and extensions.*

MATHEMATICS

Choudury, Gilbert, *Fully discrete Galerkin approximation of parabolic boundary value problems with nonsmooth boundary data.*

Davis, Steven Louis, *Single valued and set valued integrals in locally convex spaces.*

Lindsey, Charles, *Two-parameter stochastic processes with finite variations.*

STATISTICS

Gallo, José Gallo, *Exact test for fixed and random effects in unbalanced linear mixed model.*

Peters, Dawn, *Rank test for the one-two-sample by variate location problems.*

University of South Florida
(3;3,0,0,0,0,0,0)

MATHEMATICS

Clarson, Virginia H., *Mathematical classification of evoked potential waveforms.*

Kerr, David William, *Perturbations of monotone operators in Banach space.*

Simkani, Mehrdad, *Asymptotic distribution of zero of approximating polynomials.*

GEORGIA

Emory University
(1;0,0,0,0,0,1,0)

MATHEMATICS AND COMPUTER SCIENCE

Lindquester, Terri E., *The effects of distance and adjacency conditions on Hamiltonian properties in graphs.*

Georgia Institute of Technology
(1;0,0,0,0,1,0,0)

MATHEMATICS

Peters, James Edward, *Group analysis of the nonlinear dynamic equations of elastic strings.*

University of Georgia
(5;1,4,0,0,0,0,0)

MATHEMATICS

Copper, Mark Laird, *Quotient representations intertwining operators for isometry groups.*

STATISTICS

Ding, George Cherng, *Computational tools for interval testing.*

Kim, Won Kyung, *Estimation and asymptotic distribution results for the simple bilinear time series model.*

Liu, Ming-Chung (Patrick), *Nonparametric density function estimation and the deconvolution problem.*

Williams, Christopher, *Statistical problems in selection components analysis.*

HAWAII

University of Hawaii
(2;0,2,0,0,0,0,0)

PUBLIC HEALTH SCIENCES

Hussain, Abu Mohammad Zakir, *A seroepidemiological study of oral polio vaccine: Efficacy and inhibiting factors.*

Sehgal, Vija Marie, *A seroepidemiological study evaluating the role of passive maternal immunity to malaria in infants born near Madang, Papua New Guinea.*

IDAHO

Idaho State University
(2;1,0,0,0,0,0,1)

MATHEMATICS

Bates, Ronald G., *Perhermitian and centrohermitian matrices.*

Fink, Kurtis Dwight, *Modeling prey-switching with a modification of the Lotka-Volterra equations.*

University of Idaho
(1;1,0,0,0,0,0,0)

MATHEMATICS AND APPLIED STATISTICS

Wiesak, Kazimierz, *Asymptotic solution of a stochastic logistic equation with a small diffusion coefficient.*

ILLINOIS

Illinois Institute of Technology
(3;1,0,0,0,2,0,0)

MATHEMATICS

Getachew, Dawit, *Numerical computations in problems of fluid flow instability.*

Naccarato-Grosspietsch, Elise F., *A mathematical/control-theoretical model of the neuromuscular reflex loop with* FES.

Wyzinski, Henry Lawrence, *Functional equations of van der Waerden type.*

Illinois State University
(3;0,0,0,0,0,0,3)

MATHEMATICS

Brown, Gary I., *Jean D'Alembert, mixed mathematics and the teaching of mathematics.*

Engstrom, Ron, *The effects of logic σ achievement in intermediate algebra.*

Konkar, Haifa, *Graph theory as an introduction to methods of proof and problem solving.*

Northwestern University
(6;4,0,0,0,2,0,0)

MATHEMATICS

Franzen, Mark, *A unification algorithm for simple theories.*

Holmgren, Richard A., *Morse-Smale diffeomorphisms of the three sphere.*

Kennedy, Stephen, *A Lorenz-like strange attractor.*

Martino, John, *Stable splittings and the Sylow 2-subgroups of* $SL_3(F_q)$, *q odd.*

Minami, Norihiko, *Multiplicative homology operations and transfer.*

Townsley-Kulich, Lisa, *Investigations of the integral cohomology ring of a finite group.*

University of Chicago
(12;9,1,0,0,2,0,0)

GRADUATE SCHOOL OF BUSINESS

Allenby, Greg, *The identification, estimation and testing of demand structures.*

MATHEMATICS

Arbogast, Todd James, *Simulation of incompressible, miscible, displacement in a naturally fractured petroleum reservoir.*

Cho, Yong-Seung, *Finite group actions on the moduli space of self-dual connections.*

Curran, Stephen J., *Intersection homology and group actions on Witt spaces.*

Dembski, William A., *Chaos, uniform probability, and weak convergence.*

Herrmann, Diane Lynn, *Generalized quadrangles in* P*-groups.*

Letzter, Gail Rebecca, *The algebraic hypercenter and integrality of i-adic completions.*

Mourad, Karim Joseph, *Fragments of arithmetic and the foundations of the priority method.*

Murnaghan, Fiona, *Meromorphic invariant distributions on p-adic* GL(N).

Nagata, Masatsugu, *The equivariant homotopy type of the classifying space of normal maps.*

Stokes, Mitchell P., *Faithfulness, fitting ideals, and duality.*

Wang, Junping, *Asymptotic expansions and* L^∞*-error estimates for mixed finite element methods for second order elliptic problems.*

University of Illinois, Chicago
(7;3,0,3,0,1,0,0)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Chanasar, Kingkaeo, *Numerical methods of approximating solutions of differential equations.*

Dietzfelbinger, Martin, *Lower bounds on computation time for various models in computational complexity theory.*

Gialamas, Stefanos, *Determining vanishing Massey triple products.*

Kirchherr, Walter W., *Reversal bounded turing machines.*

Lu, Meiliu, *Self-stabilization of fault-tolerant clock synchronization.*

Solakiewicz, Richard, *Scattering by an obstacle in a half-space bounded by a penetrable outerface.*

Yu, Yung, *The invariant polynomials of finite subgroups of special linear group in three variables over complex numbers.*

University of Illinois, Urbana-Champaign
(12;8,2,0,0,2,0,0)

MATHEMATICS

Cobb, Philip Abram, *Existence and conjugacy of Hall subgroups and embedding of π-subgroups.*

Kim, Saeja Oh, *Projective resolutions of generic order ideals.*

Kratzke, Thomas Martin, *Total interval number of a graph.*

Mora, Carlos Arturo, *Subspaces of dualless spaces.*

Pang, Peter Yu-Hin, *Minimal models and Riemannian foliations.*

Sportsman, Joseph Scott, *Automorphism groups of the augmented distance graphs of trees.*

Srivastav, Anupam, *Swan modules and elliptic functions.*

Weaver, Margaret Denise (Lefevre), *Graph labelings.*

Wheeler, Ferrell Shane, *On two differential-difference equations arising in analytic number theory.*

Wong, Shek-Tung, *Analytic continuation and functional equations of cuspidal Eisenstein series for maximal cuspidal subgroups.*

STATISTICS

Fakhre-Zakeri, Issa, *Sequential confidence sets with guaranteed coverage probability and beta-protection in multiparameter families.*

Kim, Sung Lai, *Sequential confidence sets with β-protection in the presence of nuisance parameters.*

INDIANA

Purdue University
(26;5,4,1,3,2,0,11)

INDUSTRIAL ENGINEERING

Campbell, Brian, *Steiner tree problems on special planar graphs.*

del Greco, John G., *Representations of bicircular matroids and the complexity of recognizing a class of generalized network flow matrices.*

Ferreira, Placid, *Adaptive accuracy improvement of machine tools.*

Garg, Chaya, *Development of a methodology for knowledge elicitation for building expert systems.*

Harmonosky, Catherine, *An approach to generalized analysis of automated manufacturing systems through classification.*

Hsu, Danny, *A new approach to select strategy for developing countries to build a machine tool industry.*

Huang, Shiu-Ling, *Expert systems for grading hardwood lumber.*

Joshi, Sanjay, CAD *interface for automated process planning.*

Koubek, Richard, *Toward an understanding of super-expert cognitive performance: implications for expert systems and software engineering.*

Liang, Gau-Rong, *Logic approach to surface-generating problem.*

Maley, James G., *A combinatorial optimization solution strategy with application to transport systems.*

Occena, Luis, *A pattern directed inference approach to hardwood log breakdown decision automation.*

Sudit, Moises, *Paroids: a generic environment for local search.*

Wu, Muh-Cherng, *A new methodology for automatic process planning and execution based on adaptive information modeling.*

MATHEMATICS

Haji-Ghassemi, Kamran, *Generalized gradients of value functions in optimal control.*

Klingenberg, Wilhelm Hans, *On compactness of sequence of proper holomorphic maps.*

Kong, Kam Cheung, *Residues of holomorphic vector fields and sections of vector bundles.*

Lin, Ja-Chen, *Rational L^2-approximation with interpolation.*

McNeal, Jeffery Dean, *The Bergman kernel function in $\mathbf{C}^2$.*

Roberts, Gordon Reed, *Smoothness of* CR *maps between certain finite-type hypersurfaces in $\mathbf{C}^2$.*

Sturnfield, James Fredric, *The effect of a strict cut-off on quantum field theory.*

Verma, Jugal Kishore, *Unmixed local rings, symbolic topologies of ideals and quasi-factorial domains.*

STATISTICS

Angers, Jean-François, *Development of robust estimators for a multivariate normal mean.*

Fong, King-Hoi, *Ranking and estimation of exchangeable means in balanced and unbalanced models: a Bayesian approach.*

Han, Sang Hyun, *Contributions to selection and ranking procedures with special reference to logistic populations.*

Lu, Kun-Liang, *Estimated loss frequentist approach.*

University of Notre Dame
(5;5,0,0,0,0,0,0)

MATHEMATICS

Chen, Wanxi, *Cartan's conjecture: defect relations for meromorphic maps from parabolic manifold to projective space.*

Gandhi, Malan, *Invariant distances on manifolds.*

Im, Bokhee, *The automorphisms of unipotent radicals of certain parabolic subgroups of symplectic groups.*

Nayak, Bhanumati, *Hermitian Morita theory and the unitary groups.*

Wisniewski, Jaroslaw, *Length of extremal rays and applications.*

IOWA

Iowa State University
(14;3,7,0,1,2,0,1)

MATHEMATICS

Abu-Kaff, Taha Mohammad, *Oscillation and nonocillation of functional differential equations.*

Chung, Seiyoung, *Dual algorithm for L_1 isotonic optimization on a partially ordered set.*

Debnath, Joyati Chakraborty, *N-dimensional Laplace transforms with associated transforms boundary value problems.*

Odoom, Frank Albert, *Theorems on unilateral, bilateral multidimensional Laplace transforms with partial differential equations.*

Pennings, Timothy James, *Extension of dynamical systems.*

Schmidt, Robert Craig, *The numerical solution of linear first kind Fredholm integral equations using an iterative method.*

Tamraz, Abdullah Jamil, *Bifurcation of periodic solutions of singularly perturbed delay differential equation.*

STATISTICS

Eltinge, John L., *Measurement error models for time series.*

Francisco, Carol Ann, *Estimation of quartiles and the interquartile range in complex surveys.*

Hasabelnaby, Nancy, *The use of a weighting function in measurement error regression.*

Lee, Mong-Hong, *Strongly consistent modified maximum likelihood estimation of U-shaped hazard functions.*

Lin, Tsung-Hua, *Confidence sets for the rates of variance components in a mixed linear model with two variance components.*

Morel, Jorge, *Multivariate nonlinear models for vectors of proportions: A generalized least squares approach.*

Zimmerman, M. Bridget Tirol, *Computational aspects and statistical applications of the transportation problem of linear programming.*

University of Iowa
(15;9,4,0,0,2,0,0)

APPLIED MATHEMATICAL SCIENCES

Castelfranco, Ann Marie, *Nonlinear feedback processes in models of neuronal excitability.*

MATHEMATICS

Anderson, Thomas Allyn, *A computable, atomic Boolean algebra and its extensions.*

Iverson, Paul Douglass, *Derivatives of linear orderings with applications to the first order theory of Boolean algebras.*

Kang, Byang Gyun, **-Operations on integral domains.*

Ling, Kuen-Shan, *Representations of non-self-adjoint algebras.*

Mena-Lorca, Jaime Juan, *Periodicity and stability in epidemiological models with disease-related deaths.*

Othman, Sadoon Ibrahim, *Grothendieck measures and strict topologies.*

Saavedra-Guzman, Jorge Ilitch, *Numerical solution for Laplace's equation on non-simply connected regions.*

Widmer, Lamarr Clayton, *Identities in alternative rings.*

Xue, Weimin, *On exact Artinian rings and Morita duality.*

Ye, Xiang Dong, *Semigroup of quotients.*

STATISTICS AND ACTUARIAL SCIENCE

Du Mond, Charles Edward, *Adaptive robust L-estimates of scale with applications to a test of homogeneity of variances.*

Hillis, Stephen L., *M-estimation of location for censored data.*

Kelly, Robert E., *Estimation error under the simple tree order restriction.*

Mendieta, Gonzalo, *Two hyperfinite approximations to the Brownian bridge.*

KANSAS

Kansas State University
(1;1,0,0,0,0,0,0)

MATHEMATICS

Al-Thagafi, Mohammed Ahmed Omar, *Continuous measures and prime L-subalgebras of $M(G)$ associated with scattered sets.*

University of Kansas
(1;1,0,0,0,0,0,0)

MATHEMATICS

Scheepers, Marion, *The meager-nowhere dense game.*

LOUISIANA

Louisiana State University, Baton Rouge
(4;3,0,0,0,0,1,0)

MATHEMATICS

Berger, Ruth, *Class numbers and units of number fields E with elementary abelian $K_2(0_E)$.*

Redfern, Mylan, *White noise approach to multiparameter stochastic integration.*

Reid, Talmage James, *On roundedness in matroid theory.*

Rivero, Francisco, *Group actions on minimal functions over finite fields.*

Tulane University
(2;1,0,0,0,1,0,0)

MATHEMATICS

Lin, Chin-Yuan, *Degenerate nonlinear parabolic boundary value problems.*

Siddoway, Michael Frank, *On endomorphism rings of modules over Henselian rings.*

MARYLAND

Johns Hopkins University
(7;4,1,0,1,0,0,1)

BIOSTATISTICS

Connolly, Margaret Anne, *Logistic models for familial association of binary traits.*

MATHEMATICAL SCIENCES

Christofides, Tasos C., *Maximal probability inequalities for multidimensionally indexed semimartingales and convergence theory of U-statistics.*

Ting, Shen-Sheng, *Obnoxious facility location problems on networks.*

MATHEMATICS

Ji, Shanyu, *The uniqueness problem, image of hypersurfaces and Nevanlinna theorems in push-forward version.*

Kim, Hyun-Kwang, *A conjecture of S. Chowla and related topics in analytic number theory.*

Yamaguchi, Atsushi, *Morava K-theory of double loop spaces of spheres.*

Zhu, Xiou-Wei, *Declassification of spinors under G spin_{14} over finite fields and its application.*

University of Maryland, Baltimore
(3;0,2,0,0,1,0,0)

MATHEMATICS

Bhaumik, Dulal Kumar, *Optimal designs under biased and correlated models.*

Saidi, Fathi, *The large time behavior of solutions of a diffusion equation involving a nonlocal convection term.*

Shen, Wei-Hsiung, *Tests for structural relationship.*

University of Maryland, College Park
(11;3,2,0,0,6,0,0)

MATHEMATICS

Cai, Haiyan, *On reviving Markov processes and applications.*

Cheng, Raymond, *Delta-trigonometric method using the single-layer potential representation.*

Hurtado-Donaldson, Ana, *Nonparametric estimation in a survival / sacrifice experiment.*

James, Matthew Ronald, *Asymptotic nonlinear filtering and large deviations with application to observe design.*

Kammeyer, Janet Whalen, *A complete classification of the two-point extensions of a multidimensional Bernoulli shift.*

Lanza de Cristoforis, Massimo, *Nonlinear deformation of structures in perfect flows.*

Nardi, Jerry, *Practical techniques for source coding: constructive block coding and calculating the compression rate of sliding-block codes.*

Park, Kwang, *Transnormal systems on projective spaces.*

Patrick, Vincent, *Some solutions to problems in depth vision from differential geometry and deconvolution methods.*

Vanaja, Venkataraman, *Iterative solution of forward-backward heat equation.*

van de Geijn, Robert, *Implementing the QR algorithm on an array of processors.*

MASSACHUSETTS

Boston University
(3;1,1,0,0,1,0,0)

MATHEMATICS

Bianco, Louis G., *Bayesian inference on time point and amount of charge in an* IMA (1, 1) *time series.*

Buck, Gregory R., *Mass distribution in central configurations.*

Strauss, Nicholas C., *Symbolic algebra: Jordan forms and local analysis.*

Brandeis University
(3;3,0,0,0,0,0,0)

MATHEMATICS

Jin, Gyo Taek, *Invariants of two-component links.*

Kirk, Paul, *Link homotopy with one codimension two component.*

Nielsen, Peter Andrew, *A Riemann-Roch type inequality.*

Harvard University
(19;4,8,2,0,3,0,2)

APPLIED SCIENCES

Glasserman, Paul, *Equivalence methods in the perturbation analysis of queueing networks.*

Sabot, Gary Wayne, *An architecture-independent model for parallel programming.*

Spall, Michael, *Regional ocean modelling: Primitive equation and quasigeostrophic studies.*

BIOSTATISTICS

Barraj, Layla M., *The analysis of incomplete and nonrepresentative observations from continuous time processes.*

Berlin, Jesse Aaron, *Publication bias: A problem in interpreting medical data.*

Davis, Roger B., *Exponential survival trees.*

Geer, Daniel E., *A knowledge-based system for epidemiologic assessment.*

Tosteson, Anna N., *Quantitative diagnostic technology assessment: Methods and applications.*

MATHEMATICS

Fekete, Alan, *Topics in distributed algorithms.*

Hatcher, Rhonda Lee, *Heights and L-series.*

Jungreis, Irwin, *Periodic points of one- and two-dimensional maps.*

Nadel, Alan M., *Hyperbolic surfaces.*

Reichstein, Zinovy, *The behavior of stability under equivariant maps.*

Savin, Gordan, *Limit multiplicities of cusp forms.*

Tian, Gang, *Kähler metrics on algebraic manifolds.*

Youssin, Boris, *Newton polyhedra without coordinates.*

STATISTICS

Brown, Emery Neal, *Identification & estimation of differential equation models for circadian data.*

Raghunathan, Trivellore Eachambadi, *Large sample significance levels from multiply-imputed data.*

Ramos, Ernesto, *Resampling methods for time series.*

Massachusetts Institute of Technology
(26;13,1,2,7,2,0,1)

MANAGEMENT SCIENCE GROUP

Abraham, Magid M., *Retailer forward buying of consumer goods.*

Charoen-Rajapark, Chatchawin, *Clustering to minimize (maximize) the within cluster (between cluster) sum of squares: Complexity, optimization algorithms, and heuristics.*

Mireault, Paul H., *An integer programming approach to the traffic signal synchronization problem.*

MATHEMATICS

Aiello, William Anthony, *Proofs, knowledge and oracles: Three complexity results on interactive proofs and zero-knowledge.*

Blanc, David Abraham, *A Hurewicz spectral sequence for homology.*

Brenti, Francesco, *Unimodal, log-concave and Pólya frequency sequences in combinatorics.*

Cheng, Benny Ngo, *Area-minimizing equivariant cones and coflat calibrations.*

Evens, Samuel R., *Transfer for compact Lie groups, induced representations and braid relations.*

Feldman, Paul Neil, *Optimal algorithms for Byzantine agreement.*

Hunter, Thomas John, *On* $H^*(\Omega_0^{n+2}S^{n+1}; \mathbf{F}_2)$.

Lesh, Kathryn Frances, *Extensions of maps from suspensions of finite projective spaces.*

Livingston, Boyd Thomas, *The Hodge cohomology of maximal Euclidean cusp manifolds.*

Lowe, Stephen Alan, *Theory of spiral modes in disk galaxy models.*

Lunts, Valery, *Algebraic varieties preserved by generic flows.*

Matumoto, Hisayosi, *Whittaker vectors and Whittaker functions for real semisimple Lie groups.*

Park, Chang Hoon, *The estimation of a rigid body motion in the presence of noise.*

Sa Barreto, Antonio, *Interactions of conormal waves for fully semilinear wave equations.*

Sachs, Jeffrey Robin, *A mathematical model of an electromechanically coupled poroelastic medium.*

Schmidt, Michael S., *Optimal rates of convergence for nonparametric regression estimators.*

Stover, Christopher Roy, *A van Kampen spectral sequence for higher homotopy groups.*

van Mulbregt, Paul Adrian, *L-series over real quadratic fields.*

Vonessen, Nikolaus, *Actions of linearly reductive groups on affine* PI*-algebras.*

OPERATIONS RESEARCH

Boyd, Ernest Andrew, *Optimization problems on greedoids.*

Marujo, Ernesto Cordeiro, *Dynamic allocation of machines to product families in the presence of setup delays.*

Thompson, Paul Michael, *Local search algorithms for vehicle routing and other combinatorial problems.*

Wagner, Janet Mary, *Stochastic programming with recourse applied to groundwater quality management.*

Northeastern University
(2;1,0,0,0,1,0,0)

MATHEMATICS

Fairbanks, Leon David, *Lax equation representation of certain completely integrable systems.*

Trubek, Jeanne, *Asymptotic behavior of solutions to* $\Delta u + Ke^{2u} = 0$ *and* $\Delta u + Ku^{\sigma} = 0$ *on Euclidean spaces.*

University of Massachusetts, Amherst
(3;1,1,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Barbanel, Emelia, *Complete minimal surfaces in* $\mathbf{R}^3$ *of low total curvature.*

Mandhyan, Indur, *The diagonalization of some nonlinear integral operators and their computation.*

Seden, Deniz, *Two-sample rank tests for joint type-II censored data.*

MICHIGAN

Michigan State University
(12;3,2,0,0,6,0,1)

MATHEMATICS

Boules, Adel N., *A finite element approximation of the flow in a toroidal tube.*

Chern, Tien-Yu Peter, *A study of value distribution, zero sets, inequalities, and coefficient conditions for analytic functions with slow growth and for lacunary series with Hadamard gaps.*

Deng, Bo, *Bifurcation of a unique and stable periodic orbit from a homoclinic orbit in infinite dimensional systems.*

Elgindi, Mohamed Belal Mohamed, *Load capacity of hollow elastic cylinders submerged in a fluid.*

Hewitt, Paul R., *A 2-local approach to Conway's simple group through the 2-modular geometry of the Leech lattice.*

Lane, Derek Graham, *Bifurcating periodic solutions of a smoothed piecewise linear delay differential equation.*

Lopez, Elias M., *Licci Gorenstein ideals of deviation two.*

McKeon, Kathleen, *Enumeration of symmetries in locally-restricted trees.*

Rhee, Noah, *Homotomy method for the symmetric eigenvalue problems.*

Wang, Fuh-Gwo Frank, *Theoretical and numerical studies on a penalty-perturbation finite element method for the biharmonic plate problems.*

STATISTICS AND PROBABILITY

Kim, Jaesung, *A test for the change-point problem based on the Cramer-Von Mises statistic.*

Thewarapperuma, Pathma S., *On estimation of density functionals under regression and one sample models.*

University of Michigan, Ann Arbor
(23;10,3,0,5,0,0,5)

BIOSTATISTICS

Entsuah, Anthony Richard, *Randomization procedures for analyzing clinical trial data with treatment related withdrawals.*

Haske Schwab, Lora, *Inference for a multi-state stochastic model based upon interval-censored data paths.*

Miller, Michael E., *Generalized variance component models for clustered categorical response variables.*

Peterson, Edward Lawrence, *The two-sample problem in the accelerated failure time model.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Bolat, Ahmet, *Generalized mixed model assembly line sequencing problem.*

Chan, Thomas J., *A new methodology for solving the set partitioning problem.*

Chang, Soo, *The steepest descent gravitational method.*

Ganesh, Kothandaraman, *Serial replacement under evolving productivity.*

Lee, Hyun, *Spatial decomposition method and its manipulation.*

Noon, Charles, *The generalized traveling salesman problem*

MATHEMATICS

Brownstein, Alan B., *Homology of Hilbert modular groups.*

Erickson, Martin J., *Enumerative and existential combinatorics concerning the power set of the power set of a set.*

Folk, David B., *On the genus of normal closures of rational function field extensions.*

Garaizar, F. Javier, *Semilinear elliptic problems in the annulus.*

Gu, Zhi Bin, *Cancellation diagrams on surfaces and quadratic equations in groups.*

Hobart, Sylvia A., *Coherent configurations of type* $\left(\begin{smallmatrix} 2 & 2 \\ 4 & \end{smallmatrix}\right)$ *and designs.*

Horstmann, Cay S., *Automorphism groups of complex surfaces of general type.*

LaFlamme, Claude, *Complete combinatorics for ultrafilters and the Rudin-Keisler ordering.*

Overholt, Marius, *Linear problems for the Schwarzian derivative.*

Santoni, Larry J., *Horrock's question for monomially graded modules.*

STATISTICS

Bellout, Djamel, *Order restricted estimation of distributions with censored data and application to a stopping problem.*

Meslem, Abdelhakim, *Asymptotic expansions for confidence intervals with fixed proportional accuracy.*

Tahir, Mohamed, *Asymptotically optimal Bayesian and minimax sequential point estimation.*

Wayne State University
(2;1,0,0,0,1,0,0)

MATHEMATICS

Li, Jin lu, *On the Ventcel–Freidlin theory in separable Hilbert spaces.*

Sun, Min, *On singular stochastic control and optimal stopping time problems in bounded domains.*

Western Michigan University
(1;0,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Davis, James Buddy, *Robust rank analysis for multivariate linear models.*

MINNESOTA

University of Minnesota, Minneapolis
(15;6,4,0,0,5,0,0)

MATHEMATICS

Elbialy, Mohamed Sami, *Collision singularities of the N-body problem and the isosceles three-body problem.*

Garofalo, Nicola, *Unique continuation theorems for second order elliptic and parabolic equations.*

Hardy, Gabor, *Stochastic differential equations in duals of nuclear spaces.*

Hofmann, Steven Carl, *Weighted weak* $(1,1)$ *inequalities for singular integrals with non-smooth kernel.*

Jolly, Michael Summerfield, *Geometric construction of an inertial manifold for a reaction diffusion equation.*

Le Stum, Bernard, *Applications of rigid cohomology to arithmetic geometry.*

Lin, San-Yih, *Numerical analysis for liquid crystal problems.*

Perovic, Zikica Dusan, *Cardinalities of algebraic structures satisfying completness and saturation conditions.*

Quiros, Adolfo, *On the P-adic analytic continuation of divisibility properties of filtered F-crystals with applications to the cohomology of algebraic varieties.*

Rustichini, Aldo, *Dynamics in a model of economic growth with delays.*

Zurkowski, Victor, *Scattering for first order linear systems on the line and Backlund transformations.*

STATISTICS

Andersen, John Stanley, *Treatment allocation in clinical trials with delayed response.*

Lavine, Michael Lee, *Prior influence in Bayesian statistics.*

St. Laurent, Roy Thomas, *Diagnostics in nonlinear regression.*

Thomas, John William, *Contributions to statistics diagnostics.*

MISSISSIPPI

University of Mississippi
(2;1,0,0,0,0,0,1)

MATHEMATICS

Jehaima, Ramadan, *Representation of operators on Banach lattices.*

Maddox, Randall Bert, *Vertex partitions and transition parameters.*

MISSOURI

University of Missouri, Columbia
(2;1,1,0,0,0,0,0)

MATHEMATICS

Dixon, Albert, *A polynomial ring localization.*

STATISTICS

Islam, Mohammed Zahorul, *Comparing populations with covariates.*

Washington University
(8;3,0,0,2,3,0,0)

MATHEMATICS

DeMari, Filippo Casareto Dal Verme, *On the topology of the Hessenberg varieties of a matrix.*

Musso, Emilio, *Pseudo-holomorphic curves in the six sphere.*

Zheng, Yunbo, *Harmonic maps into Grassman manifolds.*

SYSTEMS SCIENCE AND MATHEMATICS

Adelani, Lateef Alabi, *Optimal control of renewable economic resources.*

Feng, Xin, *New decomposition and convexification methods for nonconvex large-scale primal-dual optimations.*

Lirov, Yuval, *Artificial intelligence methods in decision and control systems.*

Maheshwari, Sandeep, *Optimization of queueing networks.*

Yun, Xiaoping, *Coordinated control of two robot arms by nonlinear feedback.*

MONTANA

Montana State University
(1;0,0,1,0,0,0,0)

MATHEMATICAL SCIENCES

Jonca, Katarzyna Kuglarz, *Numerical solution of a nonlinear Fredholm integral equation of the first kind.*

University of Montana
(1;0,0,1,0,0,0,0)

MATHEMATICAL SCIENCES

Saber, Hashim A. M., *On a direct method of solving finite analogues of elliptic boundary value problems.*

NEBRASKA

University of Nebraska
(1;1,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Coomes, Brian Arthur, *Polynomial flows, symmetry groups and conditions sufficient for injectivity of maps.*

NEW HAMPSHIRE

Dartmouth College
(1;1,0,0,0,0,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Miyamoto, Tadatoshi, *Some results in forcing.*

NEW JERSEY

Princeton University
(14;12,0,0,0,0,1,1)

MATHEMATICS

Bluher, Antonia Wilson, *Near holomorphy of a certain infinite series at negative integers.*

Choi, Suhyoung, *Real projective surfaces.*

Eisen, David, *Localized* Ext *groups over the Steenrod algebra.*

Epperson, Jay, *The hypercontractive approach to exactly bounding an operator with complex Gaussian kernel.*

Freire, Alexandre, *Positive harmonic functions on Hadamard manifolds.*

Gregg, Joseph Nealy, *The thermodynamic limit and the existence of atoms in Coulomb-like systems.*

Hurd, Lyman Porter, *The application of formal language theory to the dynamical behavior of cellular automata.*

Im, John J. H., *On special values of certain Dirichlet series associated with two Hilbert modular forms.*

Poor, George, *Cross-ratio identities for theta functions on Jacobi varieties.*

Shurman, Jerry, *Fourier coefficients of a nonholomorphic Einsenstein series associated to an orthogonal group.*

Taylor, Richard, *On congruences between modular forms.*

Wang, Wen-Xiang, *On the compactification of locally symmetric Hermitian manifolds with finite volume.*

Yau, Horng-Tzer, *Stability of Coulomb systems.*

Yuen, David, *Second order theta functions and vector bundles on Jacobi varieties.*

Rutgers University, New Brunswick
(6;4,0,0,1,1,0,0)

MATHEMATICS

Berhanu, Shiferaw, *Hypo-analytic pseudodifferential operators.*

Lafferriere, Beatriz, *New fixed point theorems for P_γ-compact maps on cones and some applications.*

Mosender-Frajria, Peirluigi, *A construction of singular unitary representation of real reductive groups.*

Olla, Stefano, *Large deviation problems in statistical mechanics.*

Schwarz, Willi, *Applications of loop groups and standard modules to Jacobians and theta functions of isospectral curves.*

OPERATIONS RESEARCH

Crama, Yves, *Recognition and solution of structured discrete optimization problems.*

Stevens Institute of Technology
(1;0,0,0,0,0,1,0)

MATHEMATICS

DiMarco, David, *Realizability of p-point, q-line graphs with prescribed minimum degree, line connectivity and point connectivity.*

NEW MEXICO

New Mexico State University
(3;1,0,0,1,1,0,0)

MATHEMATICAL SCIENCES

Jacobs, Leland H., *The geometry of analytic curves.*

Manshad, Shakir Jaber, *The mathematical modelling for optical flow.*

Soto, Ricardo L., *On matrix inverse eigenvalue problems.*

University of New Mexico
(4;0,1,0,0,3,0,0)

MATHEMATICS AND STATISTICS

Dumas, Herbert Scott, *A mathematical theory of classical particle channeling in perfect crystals.*

Espino, Victor, *Vortex motion.*

Rutschman, David Henry, *Stability analysis of a genetic model.*

Stidley, Christine Aileen, *The analysis of mixed and random effect models for nonorthogonal designs.*

NEW YORK

Adelphi University
(3;0,1,0,0,2,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Pirich, Donna Marie Bridget, *Detection of a low-level, possibly time-delayed signal in unknown ambient background.*

Svitak, Sylvia, *The mathematical foundations of factor analysis through a study of the primary literature.*

Wayne, David, *A system of non-strictly hyperbolic partial differential equations exhibiting a parabolic degeneracy within an infinite strip.*

CUNY, Graduate Center
(4;3,0,0,0,1,0,0)

MATHEMATICS

Boccio, Dona, *On the finite Hilbert transform.*

Seguel, Jaime, *Sparse matrix factorizations for fast symmetric Fourier transforms.*

Shenefelt, Myoung An, *Group invariant finite fourier transforms.*

Sorbi, Andrea, *The fine structure of the Medvedev lattice and the partial degrees.*

Clarkson University
(3;0,0,1,0,2,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Gamal-Eldin, Mohamed Samy, *Global updates in integration of distributed databases.*

Moktar Mahmoud Abdel Rahman, Gamal, *Analytical and numerical approaches to periodic orbits of nonlinear dynamical systems.*

Papageorgiou, Vassilios, *Analytical approaches to integrable and near-integrable dynamical systems.*

Columbia University
(7;4,3,0,0,0,0,0)

STATISTICS

Gu, Ming-gao, *Nonparametric analysis of survival data in staggered entry clinical trials.*

Ji, Chuanshu, *Statistical inference for Gibbs states.*

Ying, Zhiliang, *Recursive estimation and adaptive control in dynamic system and time series model.*

MATHEMATICS

Chu, Ming, *On the distribution of the roots of polynomial sequences.*

Fan, Kungsheng, *Monodromy of Weierstrass points on special curves.*

Moody, John Atwell, *Induction theorems for infinite groups.*

Stade, Eric G., *Whittaker functions and Poincaré series for* GL(3, **R**).

Cornell University
(22;7,4,0,5,6,0,0)

APPLIED MATHEMATICS

Andreasen, Viggo A., *Dynamical models for epidemics in age-structured populations–analysis and simplification.*

Chu, Clare Yung-lei, *The fast Fourier transform on hypercube parallel computers.*

Len, Jonathan Louis, *Nonlinear parametric excitation with averaging and Lie transform methods.*

Liu, Wei-min, *Dynamics of epidemiological models–recurrent outbreaks in autonomous systems.*

Qiao, Sanzheng, *Fast Teoplitz orthogonalizations.*

Semper, William Joseph, *Some properties of the streamline diffusion method.*

BIOMETRICS

Cullinan, Valerie Ims, *Estimation in the unbalanced model* II *one-way classification in the presence of heteroscedasticity assuming randomized sampling rates.*

Rubin, Gail, *Statistical distribution and estimation theory for a single server queue with fixed service time and complete balking.*

MATHEMATICS

Fogelsanger, Allen Lee, *The generic rigidity of minimal cycles.*

Head, Janet Elizabeth, *The combinatorics of Newton's method for cubic polynomials.*

Hutchinson, Kevin, *On the homology of GL_2 of a field.*

Klassen, Eric Paul, *Representations of knot groups in $SU(2)$.*

Oberste-Vorth, Ralph Werner, *Complex horseshoes and the dynamics of mappings of two complex variables.*

Rose, Lauren Lynn, *The structure of modules of splines over polynomial rings.*

Wittner, Ben Scott, *On the bifurcation loci of rational maps of degree two.*

OPERATIONS RESEARCH

Gallego, Guillermo Miguel, *Real-time scheduling of several products on a single facility with setups and breakorders.*

Haas, Ruth, *Dimensions and bases for certain classes of splines: A combinatorial and homological approach.*

Masch, Victor V., *The minimum cost subtour elimination method for solving the traveling salesman problem.*

Tanaka, Nelson Ithiro, *Scaling theory for oriented percolation.*

STATISTICS

Abu-Libdeh, Hasan Ibrahim, *Statistical methodology for the analysis of replicated point processes: With application to a randomized clinical trial for the prevention of skin cancer.*

Ferreira, Irene, *Cluster for the voter model in a random environment and the probability of survival for the biased voter model in a random environment.*

Roy, Rahul, *The Russo-Seymour-Welsh theorem and the equality of critical densities for continuum percolation on R^2.*

New York University, Courant Institute
(13;5,0,0,0,1,0,7)

MATHEMATICS

Akbik, Safwan, *Large prime divisors and irreducible polynomials over number fields.*

Altmann, Michael, *Controlled branching process models of linearly structured populations.*

Cruz, Ricardo Nogueira da, *Periodic knots.*

Hamaguchi, Satoshi, *Anomalous transport arising from nonlinear resistive pressure-driven modes in a plasma.*

Jones, James, *An asymptotic analysis of an expanding detonation.*

Mascagni, Michael Vincent Albert, *Negative feedback in neural networks.*

Oba, Roger, *Doubly infinite Toda lattice with antisymmetric asymptotics.*

Schlick, Tamar, *Modeling and minimization techniques for predicting 3D structures of large biological molecules.*

Shlapentokh, Alexandra, *Extension of Hilbert's tenth problem and related results.*

Soria, Jose, *A study of correlation inequalities for two-component hypercubi φ^4 models.*

Surace, Steven, Jr., *The Schrödinger equation with a quasi periodic potential.*

Tepedino Aranguren, Gaetano, *Bounds on the effective energy density of two non-linear composites.*

Von Dreifus, Henrique, *On the effects of randomness.*

Polytechnic University
(3;2,1,0,0,0,0,0)

MATHEMATICS

Eid, George M., *On normal and weakly compact lattices.*

Gorelishvili, Albert, *On Alexandrov lattices.*

Mansur, Khandaker A., *The interchangability of the means of certain distributions.*

Rensselaer Polytechnic Institute
(4;0,0,1,1,2,0,0)

MATHEMATICAL SCIENCES

Brent, Ronald I., *Environmental effects on acoustic and electromagnetic wave propagation using parabolic approximations.*

Foul, Abdelaziz, *The $N \times 2N$ linear complementarity problem with connection to the theory of linear inequalities.*

Gu, Zhong-mei, *Analytical methods for singular singularly-perturbed problems.*

Moore, Peter, *A local adaptive finite element method for solving one- and two-dimensional systems of parabolic partial differential equations.*

SUNY at Binghamton
(3;0,3,0,0,0,0,0)

MATHEMATICAL SCIENCES

Boukai, Benzion, *The change-point problem and related topics.*

Normolle, Daniel Paul, *Comparison of classification methods for multivariate data.*

Spier, Norman A., *Some large sample linear and general regression results under variable censoring.*

SUNY at Buffalo
(5;2,1,0,0,2,0,0)

MATHEMATICS

Meng, Xiao-Qing, *Categories of convex sets and of metric space, with applications to stochastic programming and related areas.*

Rogers, Robert R., *A triangular form for bounded linear operators.*

Wang, Shin-Hwa, *On positive solutions of some nonlinear boundary value problems.*

Wilkowski, Joseph S., *A numerical investigation of Marangoni flow in a liquid metal of low Prandtl number.*

STATISTICS

Park, Eyuhoon, *Probabilistic and statistical properties for the class of natural exponential families with power variance functions.*

SUNY at Stony Brook
(10;5,3,0,0,2,0,0)

APPLIED MATHEMATICS AND STATISTICS

Jaczilevich, Aron, *On the design of Runge-Kutta methods.*

Lee, Eui Yong, *A diffusion model for a system subject to continuous mean.*

Lee, Seung-Min, *Continuum structure functions: Finite minimal vector set, weak convergence and reliability importance.*

Wu, Chung-Chung, *Contribution to nonparametric curve fitting.*

Zhang, Yin, *Quasi-Newton algorithms for unconstrained optimization.*

MATHEMATICS

Basmajian, Ara, *Hyperbolic invariants for infinitely generated Fuchsian groups.*

Loo, Bonaventure, *Branched superminimal surfaces in S^4.*

Neymotin, Irina, *Zeta-function of subelliptic differential operators.*

Vannini, Walter, *On the global influence of conjugate points.*

York, Donald, *On the global geometry of complete open surfaces of nonnegative curvature.*

Syracuse University
(1;1,0,0,0,0,0,0)

MATHEMATICS

Oruc, Melda Yaman, *On equivariant ordinary cohomology: Equivariant Steenrod algebra.*

University of Rochester
(5;5,0,0,0,0,0,0)

MATHEMATICS

Huang, Min-Jei, *Dynamics for time-dependent quantum mechanical Hamiltonians.*

Liu, Li, *Processes before extinction and comparison of measures by counting atoms.*

Maier, Marie Anna, *H-spaces of finite dimension.*

Wang, Hann-Tzong, *L^p estimates for the restricted X-ray transform.*

Yoo, Jinsung, *A Lefschetz duality theorem in p-adic cohomology.*

NORTH CAROLINA

Duke University
(3;1,0,0,0,2,0,0)

MATHEMATICS

Kimbell, Julia Howell, *On the mathematics, especially differential geometry, of sheet metal forming.*

Kontostathis, Kyriakos, *On the construction of degrees of unsolvability.*

Sylvester, Donna Gates, *Large time existence of small viscous surface waves in a three–dimensional ocean without surface tension.*

North Carolina State University, Raleigh
(17;3,6,0,4,2,0,2)

MATHEMATICS

Kiele, William Albert, *The classification problem of finite rings by computable means.*

Munoz-Morales, Eduardo Manuel, *Bifurcation analysis of a coevolutionary model with interspecific competition.*

Northrup, James Irvin, *Pointwise quasi-Newton methods and integral equations.*

Oxley, Mark Edwin, *Moving boundaries in reaction-diffusion systems with absorption.*

Pan, Ching-Tsuan, *Hyperbolic rotations for downdating the Cholesky factorization with applications to signal processing.*

OPERATIONS RESEARCH

Moustafa, Magdi Sami, *Optimal scheduling in networks of queues.*

Muhammed, Abdelfatah A., *Information theory and queueing theory via generalized geometric programming.*

Onvural, Raif Oruc, *Closed queueing networks with finite buffers.*

Seyedghasemipour, Seyed Javad, *Petroleum resource assessment in a partially explored region with a sequential land release scheme.*

STATISTICS

Chen, Chao Lung, *Estimation problems in group testing.*

Chu, Ping-Chu, *Modeling water balance in larval Mexican bean beetles,* Epilachna variestis Mulsant.

Dassel, Karen Ann, *Experimental design for the Weibull function as a dose response model.*

Eastwood, Brian James, *Confidence interval construction in semi-nonparametric regression estimation.*

Eggett, Dennis Lee, *A comparative evaluation of some statistics for determining the limits of applicability of a linear regression model.*

Holland, David Marshall, *Evaluation of a bounded frequency distribution generated by a transformed logistic variable.*

Jiang, Changjian, *Estimation of F-statistics in subdivided genetic populations.*

Lim, June Taeg, *A dynamic growth model of vegetative soybean plants under variations of root temperature and nitrogen concentration in nutrient solution.*

University of North Carolina, Chapel Hill

(15;4,11,0,0,0,0,0)

BIOSTATISTICS

Abulata, Mohamed Futuh, *Stochastic models of birth intervals according to data ascertainment method and relevant fertility indices.*

Howard, George, *An evaluation of general linear models to log-rank scores for the analysis of failure time data: With applications to survival following stroke, in the North Carolina comprehensive stroke program.*

Jerdack, George, *Rank order tests for interchangeability in some restricted and incomplete models.*

Marques, Eliana, *Analysis of categorical data from longitudinal studies of subjects with possibly clustered structures.*

McCarroll, Kathleen A., *An evaluation of some approximate F statistics and their small sample distributions for the mixed model with linear covariance structure.*

Pantula, Janella Faye, *Optimal prediction in linear regression analysis.*

MATHEMATICS

Bass, Robert James, *Local range properties and univalence in the Cauchy-Stieltjes space.*

Grissom, Charles, *Local equivalence of four-state systems with two controls under feedback.*

Hoke, Harry Franklin, III, *Lie groups which are closed at infinity.*

STATISTICS

Kettl, Ernestine Elizabeth, *Some applications on the transform-both-sides regression model.*

Marques, Mauro, *A study of Lebesgue decomposition of measures induced by stable processes.*

Palmer, Christopher Ralph, *A clinical trials model for determining the best of three treatments having Bernoulli responses.*

Tsai, Ming-Tan, *Asymptotic optimality and distribution theory of nonparametric tests for restricted alternatives.*

Wu, Xizhi, *Bayes sequential testing—a direct and analytic approach.*

Yin, Yin, *Edgeworth expansion in tests concerning heteroscedasticity.*

OHIO

Case Western Reserve University

(7;0,0,0,7,0,0,0)

OPERATIONS RESEARCH

Cuff, Carolyn Kidder, *Minimization of total tardiness in many-to-many pickup and delivery systems.*

Djerdjour, Mohamed, *A surrogate constraint relaxation based algorithm for the general quadratic multidimensional knapsack problem.*

Fuh, Duu-Cheng, *Ranges for negotiation in international countertrade.*

Getts, Gregory Brainard, *A decision support system for stock and option investments.*

Ikem, Fidelis Madeke, *Physician manpower planning for developing countries.*

Khot, Chandrashekhar Madhukar, *An efficient resource directive algorithm for multicommodity network flow problems.*

Velazco, Enio Edgardo, *Queueing theoretic approaches for the analysis and synthesis of air traffic control problems.*

Kent State University

(2;2,0,0,0,0,0,0)

MATHEMATICAL SCIENCES

Deeb, Ahmad, *Matrix transformation of subsequences, rearrangements, & stretchings.*

Mohammad, Ali Abdul-Moshin, *Projective concepts relative to classes of modules.*

Ohio State University

(12;6,6,0,0,0,0,0)

MATHEMATICS

Bannai, Etsuko, *Positive definite unimodular lattices with trivial automorphism groups.*

Ghanaat, Patrick, *A deformation technique for almost integrable parallelizations.*

Han, Sang, *The character tables of certain association schemes.*

Kim, Jae Moon, *On cyclotomic units.*

Ray, Phillip Paul, *Classical Kac-Moody algebras in characteristics.*

Reeder, Mark Stephen, *The Streinberg module and the top cohomology of arithemetic groups.*

STATISTICS

Hossain, Ayub, *The stochastic preference relations for vector valued attributes.*

Jeng, Tian-Tzer, *Some contributions to asymptotic theory on hypothesis testing when the model is misspecified.*

Lee, Gerald Kichun, *The statistical models and analysis of stem cell assay.*

Pan, Un-Quei Winkey, *Burn-in with mixed popluations.*

Ting, Chao-Ping, *Optimal designs for treatment control comparison.*

Yeo, Sungchil, *On estimation for a combined Markov and semi-Markov model with censoring.*

Ohio University

(3;1,0,0,0,2,0,0)

MATHEMATICS

Chen, Yunkai, *Periodic traveling wave solutions to the two-dimensional Korteweg-deVries equations.*

Hudak, Michael Wayne, *Applications of forcing to cardinal invariants of the continuum.*

Soewono, Edy, *Stability of traveling wave solutions of the power KdV equation.*

University of Cincinnati
(1;1,0,0,0,0,0,0)

MATHEMATICAL SCIENCES

Pulskamp, Richard John, *Nonlinear admissible estimators in the one parameter exponential case.*

University of Toledo
(1;1,0,0,0,0,0,0)

MATHEMATICS

Gompa, Raghuramaiah, *Approximations to the quantum mechanical time evolution.*

OREGON

Oregon State University
(6;1,3,0,1,1,0,0)

MATHEMATICS

Franzosa, Marie M., *Densities and dependence for point processes.*

Smith, Steven Jay, *Optimal harvesting of continuous age structured populations.*

STATISTICS

ElArishy, Samia, *Improving on the intrablock estimator via a nonlinear normal equation.*

Rossi, Richard Joseph, *Nonparametric density estimation by generalized expansion estimators—a cross-validation approach.*

Siripanich, Pachitjanut, *Estimating root mean squared error in the one-way random model.*

Yang, Minghui, *A hazardous-inspection model with costly repair.*

University of Oregon
(4;3,1,0,0,0,0,0)

MATHEMATICS

Douglass, James Matthew, *Some results concerning the reflection representation of Weyl groups and Hecke algebras.*

Hill, Gregory Mark, *On the representations of* $GL_n(\mathbf{Z}_p)$.

Patterson, Paul Linton, III, *A characterization of the algebras for a locally compact group.*

Perennec, Michelle Lucienne, *Asymptotic behaviour of some statistics derived from the studentized empirical characteristic function & their asymptotic relative efficiency in testing multivariate normality.*

PENNSYLVANIA

Carnegie-Mellon University
(5;0,2,1,0,2,0,0)

MATHEMATICS

Brandon, Deborah, *On a class of models for heat flow in materials with memory.*

Chiu, Chichia, *A higher order vortex method for two- and three-dimensional spaces.*

Choi, U Jin, *Fractional order Volterra equations in Hilbert spaces.*

STATISTICS

Galway, Lionel A., *Statistical analysis of star-shaped sets.*

Thibaudeau, Yves, *Approximating the moments of a multimodal posterior distribution with the method of Laplace.*

Lehigh University
(2;1,0,0,1,0,0,0)

MATHEMATICS

Kwon, O-Hun, *Nonlinear alternative theorems and homogeneous convex-concave programming.*

Switkay, Hal Mitchell, *Descriptive set theory and large cardinals.*

Pennsylvania State University
(13;9,3,0,0,1,0,0)

MATHEMATICS

Conrad, Joseph, *On antiautomorphisms of uniformly hyperfinite* C^**-algebras.*

Davenport, Daniel Mark, *Varieties of power commutative semigroups and their rational languages.*

Hirst, Jeffry L., *Combinators in subsystems of* $\mathbf{Z}_2$.

Loi, Phan-Hung, *On the theory of index and type* III *factors.*

Park, Sung Ho, *Lipschitz continuous metric projections and selections.*

Shieban, Faraj, *Categories and semigroupoids.*

Steven, Scott, *Group-action graphs and Ramsey graph theory: Investigating the Ramsey numbers* $R(K_{1,n}K_{k,m})$ *and* $R(K_{1,n}B_{k,m})$.

Syed, Khalid, *M-static modules.*

Wang, Hankun, *Study of stabilization and energy dissipation for second order vibrating systems.*

Yu, Xiaokang, *Matrix theory in second-order arithmetic.*

STATISTICS

Lele, Subash, *A study of estimation procedures for spatial processes.*

Linder, Ernst, *Statistical inference in the linear errors-in-variables model using the bootstrap with applications in environmental risk analysis.*

Suman, Kenneth, *A James-Stein type estimator of a distribution function.*

Temple University
(4;1,2,0,0,0,0,1)

MATHEMATICS

Ghosh, Siddhartha, *Extreme value theory: A non-standard approach.*

Shoham, Dan, *Pursuit problems.*

STATISTICS

Khan, Nazeer, *Maximum likelihood ratio classification criterion for mixed binary and continuous variables.*

Soper, Keith, *General functional models, with application to cytogenetics.*

University of Pennsylvania
(9;5,3,0,0,0,1,0)

MATHEMATICS

Bae, Sunghan, *On the conjectures of Lichtenbaum and of Chinburg over function fields.*

Kang, Pyung-Lyun, *On the variety of plane curves of degree d with* σ *nodes and* κ *cusps.*

Kim, Seyong, *A generalization of Frohlich's theorem to wildly ramified quaternion extensions of* $\mathbf{Q}$.

Pedersen, Sharon Louise, *Optimal vector fields on spheres.*

Schmutz, Eric J., *Statistical group-theory.*

Yim, Jin-Whan, *Space of souls in a complete open manifold of nonnegative curvature.*

STATISTICS

Hwang, Irving, *Group sequential significance test for clinical trials.*

Weintraub, Keith S., *Sample and ergodic properties of some min-stable processes.*

Witt, Gary, *The analysis of repeated measurements with first-order autocorrelation.*

University of Pittsburgh
(7;0,4,0,0,1,0,2)

BIOSTATISTICS

Paik, Myunghee, *Repeated measurement analysis for the non-normal outcome and its small sample properties.*

Zee, Benny Chung Ying, *Reliability of total skin score and subgroup classification of progressive systemic sclerosis.*

MATHEMATICS AND STATISTICS

Bansal, Neveen K., *Some statistical inferences on latent variables.*

Bhandary, Madhu Sudan, *Inference on signal processing in the presence of outliers.*

Ding, Yijun, *Feature selection on covariance matrices and mean vectors.*

Mesina, George L., *Iterative solutions to Navier-Stokes difference equations.*

Zhang, Lu, *Selection of features in pattern recognition using information theoretical criterion.*

RHODE ISLAND

Brown University
(20;7,0,0,0,13,0,0)

APPLIED MATHEMATICS

Fitzpatrick, Ben George, *Statistical models in parameter identification and model selection.*

Ji, Dunmu, *Asymptotic analysis of nonlinear filter problems.*

Knoerr, Alan, *Global models of natural boundaries—theory and applications.*

Mertus, John A., *Self calibrating methods for image reconstruction in emission computer tomography.*

Pratt, Michael Meade, *Analysis of near characteristic methods in the study of steady supersonic flow.*

Ramachandran, Kandethody M., *Nearly optimal singular controls for wideband noise driven systems and queueing processes.*

Rodriguez, John David, *Studies of the Ginzburg-Landau equation.*

Rothman, Ernest, *Preconditioning matrices for spectral derivative operators.*

Sakamoto, Kunimochi, *The existence and stability properties of transition layers in singularly perturbed ordinary differential equations.*

Sharp, H. Thomas, *The Jacobi matrix technique in computational fluid.*

Wang, Chunming, *Approximation methods for linear quadratic regulator problems.*

Warhola, Gregory Thomas, *Steady waves in a nonlinear theory of viscoelasticity.*

Zhang, Qing, *Controlled partially observed diffusions.*

MATHEMATICS

Buyske, Steven George, *Lie sphere transformations and the focal sets of hypersurfaces.*

Curtin, Eugene, *Intermediate tautness and relative tautness for submanifolds.*

Faucette, William Mark, *Harmonic volume, symmetric products, and the Abel-Jacobi map.*

Hanamura, Masaki, *Motives of perverse sheaves.*

Kerckhove, Michael George, *Conformal transformations of pseudo-Riemannian Einstein manifolds.*

Lopez, Angelo, *On the Picard group of projective surfaces.*

Solomon, David R., *On Lichtenbaum's conjecture in the case of number fields.*

University of Rhode Island
(4;2,0,0,1,1,0,0)

MATHEMATICS

Hammel, Sherry E., *Optimization of observability in target tracking with bearings-only measurements.*

Hoag, Jeffrey Taber, *Existence and uniqueness of solutions for a delayed-advanced model of the two-body problem of electrodynamics.*

Partheniadis, Evangelos C., *Oscillations and asymptotic behavior of solutions of delay and neutral delay differential equations.*

Schultz, Stephen W., *Necessary and sufficient conditions for oscillations of neutral differential equations.*

SOUTH CAROLINA

Clemson University
(4;2,1,1,0,0,0,0)

MATHEMATICAL SCIENCES

Eschenbach, Carolyn Pizzulo, *Eigenvalue classification in qualitative matrix analysis.*

Fox, Kevin L., *Some applications of smooth splines to density and cumulative function approximation.*

Jones, Wendell Davis, *Detecting and understanding joint influence in regression diagnostics.*

Shelton, Therese N., *The Volterra-Stieltjes integral equation.*

University of South Carolina
(4;1,2,0,0,0,1,0)

MATHEMATICS

Lin, Chiang, *Some topics on partially ordered set.*

Rowe, David Barry, *Compact convex subsets in $L_p(w)$, $0 < p < 1$.*

STATISTICS

Berry, Jack Jefferson, *Multivariate simultaneous inference.*

Lio, Yuhlong, *Smooth nonparametric quantile estimation from right censored data.*

TENNESSEE

University of Tennessee
(2;2,0,0,0,0,0,0)

MATHEMATICS

Clark, Stephen, *Some qualitative properties of the spectral density function for Hamiltonian systems.*

Snyder, David F., *Partially acyclic manifold decomposition yielding generalized manifolds.*

Vanderbilt University
(1;1,0,0,0,0,0,0)

MATHEMATICS

Profio, Joseph S., *Using sub-normality to show simple connectivity at infinity of a finitely presented group.*

TEXAS

North Texas State University
(4;3,0,0,0,1,0,0)

MATHEMATICS

Brucks, Karen Marie, *Dynamics of one-dimensional maps: Symbols, uniqueness, and dimension.*

Gragg, Karen, *Dually semimodular consistent lattices.*

Kurepa, Alexandra, *Radially symmetric solutions to a superlinear Dirichlet problem in a ball.*

Unsurangsie, Sumalee, *Existence of a solution for semilinear wave equation and a nonpositone problem.*

Rice University
(4;1,0,0,0,3,0,0)

MATHEMATICAL SCIENCES

Dawson, Clinton Norman, *Error estimates for Godunov-mixed methods for nonlinear parabolic problems.*

El-Alem, Mahmoud M., *A global convergence theory for a class of trust region algorithms for constrained optimization.*

Martinez, Hector Jairo, *Superlinear convergence of the structural secant method from the convex class.*

MATHEMATICS

Murdoch, Timothy Armstrong, *Twisted calibration and cone on the Veronese surface.*

Southern Methodist University
(2;0,2,0,0,0,0,0)

STATISTICAL SCIENCE

Cunningham, James Kelly, *Robust penalized regression.*

Strickert, Donald P., *Estimating consumer acceptance limits.*

Texas A & M University
(2;0,2,0,0,0,0,0)

STATISTICS

Miller, George Edward, *Inference for the parameters of the complete symmetry covariance structure models.*

VonTress, Mark Scott, *Estimation and diagnostics in nested variance component models.*

Texas Tech University
(3;0,1,0,0,2,0,0)

MATHEMATICS

Juang, Jong, *Abstract Riccati equations in a finite L^1 space and applications to transport theory.*

Seth, Daniel L., *Stability of the diamond energy approximation to the Spencer-Lewis equation of electron transport.*

Tahsoh, Joseph T., *Some statistical methods of curve estimation in probit analysis.*

University of Houston
(6;4,0,0,0,1,0,1)

MATHEMATICS

De Loura, Luis Camillo, *Numerical iterative methods for the Hartee equation of helium-like systems.*

Gehrke, Mai, *The order structure of Stone spaces and the T_D-axiom.*

Gonzalez, Raul Ernesto, *A geometric study of certain stochastic semigroups.*

Lan, Shaw-Ping, *The semigroup of real stochastic matrices and generalized inversion.*

Taylor, Monty B., *Filtration transforms of integral commutative CL-monoids and lattice modules.*

Wray, David Otway, *First order quotational logic.*

University of Texas, Arlington
(4;4,0,0,0,0,0,0)

MATHEMATICS

Hu, Shouchuan, *Fixed point theory and differential-integral equations.*

Kathirkamanayagan, Mailvaganam, *Study of singularly perturbed systems.*

Sivasundaram, Seenithamby, *The method of upper and lower solutions and interval method for nonlinear differential equations.*

Winton, Richard, *On subdirectly irreducible groups and automorphism groups.*

University of Texas, Austin
(6;3,0,0,0,3,0,0)

MATHEMATICS

Beneish, Esther, *Invertible modules.*

Bosse, Marie-Pascale, *Homogenization of the layered medium equation.*

Koo, Hyeng Keun, *Rational function fields and related topics in skew field theory.*

Motto, Michael, *Surfaces in three-manifolds and three-manifold triads.*

Oppenheimer, Seth Frederic, *A partial differential equation arising from a problem in the dynamics of gas absorption.*

Walkington, Noel John, *Resolution of a diffusion problem arising in the flow of fluids.*

UTAH

University of Utah
(9;1,0,0,0,8,0,0)

MATHEMATICS

Bialecki, Bernard, *Sinc function methods for numerical solution of Cauchy singular integral equations with application to inverse scattering.*

Chen, Roger Roul-Chwian, *Eigenvalue estimate on a compact Riemannian manifold.*

Harris, Gregory Allen, *Semilinear elliptic equations with nonhomogeneous boundary conditions.*

Lakos, Nela, *Boundary value problems for systems of semilinear elliptic equations.*

Stromberg, Marc R., *Solution of shock problems by methods using sinc functions.*

Walker, James Davidson, *Delamination in composite materials—some problems in fracture mechanics and numerical analysis.*

Watanabe, Masaji, *Bifurcation of invariant tori and periodic solutions to systems of coupled oscillators.*

Woodward, Diana Elizabeth, *Patterns of phase-locking in networks with cyclic group symmetries.*

Zinner, Bertram, *Traveling waves in discrete excitable media.*

Utah State University
(1;0,0,0,0,1,0,0)

MATHEMATICS

Bourji, Samih Kassem, *Least-change secant updates of nonsquare matrices.*

VIRGINIA

Old Dominion University
(3;0,1,0,0,2,0,0)

MATHEMATICS AND STATISTICS

Edmonds, George F., *On the thermal stresses due to a uniform heat flow past a circular hole with a radial edge crack.*

Hwang, Jen-Ing Grace, *On a moving boundary problem of transitional ballistics.*

Sabnis, Sanjeev, *Large deviation local limit theorems for ratio statistics.*

University of Virginia
(2;1,0,0,0,1,0,0)

APPLIED MATHEMATICS

Fulton, James Paul, *Rubber-like spherical shells and circular plates under vertical point-loads.*

MATHEMATICS

Edwards, Steven Robert, *The spin bordism of $B(E_8 \times E_8)$.*

Virginia Commonwealth University
(1;0,1,0,0,0,0,0)

BIOSTATISTICS

Clark, B. Christine, *Developmental toxicity data: Trend tests for mean proportional responses from litters of random size.*

Virginia Polytechnic Institute and State University
(7;0,7,0,0,0,0,0)

STATISTICS

Amin, Raid, *Variable sampling interval control charts.*

Bauer, Laura Lynn, *Hypothesis testing procedures for non-nested regression models.*

DeFeo, Patrick A., *Sequential robust response surface strategy.*

Einsporn, Richard Llyod, *A link between least squares regression and nonparametric curve estimation.*

Giovannitti-Jensen, Ann, *Graphical assessment of the prediction capability of response surface designs.*

Marx, Brian D., *Ill-conditioned information matrices and the generalized linear model: An asymptotically biased estimation approach.*

Senderak, Edith Tan, *Design and regression estimation in double sampling.*

WASHINGTON

University of Washington
(10;4,4,0,0,0,1,1)

BIOSTATISTICS

Rida, Wasima Nickie, *Stochastic models for the spread of communicable diseases: Parameter estimates and their properties.*

MATHEMATICS

Assem, Magdy Ahmed Amin, *Matching of certain unipotent orbital integrals on p-adic orthogonal groups.*

Engelhardt, Elizabeth, *Some problems on paths in graphs.*

Letzter, Edward Steven, *Prime ideals in finite extensions of noncommutative noetherian rings.*

Perkins, Patrick Thomas, *Commutative subalgebras of the ring of differential operators on a curve.*

Poliquin, Rene Albert, *Proto-differentiation and integration of proximal subgradients.*

Wolenski, Peter R., *Properties of the value function in optimal control.*

STATISTICS

Banfield, Jeffrey David, *Constrained cluster analysis and image understanding.*

Grunwald, Gary Kenneth, *Time series models for continuous proportions.*

Hurley, Catherine Brid, *A "data viewer" for multivariate data.*

Washington State University
(1;0,0,0,0,0,0,1)

MATHEMATICS

Stavros, Shirley R., *Aspects of mathematical science.*

WISCONSIN

University of Wisconsin, Madison
(30;23,4,0,0,2,0,1)

MATHEMATICS

Blount, Douglas J., *Comparison of a stochastic model of a chemical reaction with diffusion and the deterministic model.*

Chen, Chao-Nien, *Multiple solutions and bifurcation for a class of nonlinear Sturm-Liouville eigenvalue problems on an unbounded domain.*

Costantini, Cristina, *The Skorohod oblique reflection problem and a diffusion approximation for a class of transport processes.*

Decker, Naomi, *The Fourier analysis of multigrid-type iterative methods.*

Fares, Jean, *The generalized local Lefschetz number.*

Goldstein, Steven, *Multitype branching processes: Diffusion approximations for critical decomposable processes and calculations for a cancer tumor growth model.*

Graves, Alan Scott, *The splitting of the equivariant J-homomorphism for linear circle actions.*

Hall, Mark E., *Verma bases of modules for simple Lie algebras.*

Harizanov, Valentina, *Degree spectrum of a recursive relation on a recursive structure.*

Henriques, Pedro, *Some variational problems for exterior differential systems.*

Hong, Geck Chan, *Integral mean estimates for a class of subharmonic functions of finite order in space.*

Jiang, Shouli, *The strict p-space problem and generalized metric spaces as images of metric spaces.*

Long, Yiming, *Periodic solutions of perturbed superquadratic Hamiltonian systems.*

Markel, Scott Alan, *Solitary and periodic waves in swirling flows of plasmas.*

Michael, T. S., *The structure matrix of the class of r-multigraphs with a prescribed degree sequence.*

Ng, Siu-Ah, *A nonstandard approach to the theory of forking.*

Odenthal, Charles, *Presentations over* HNP *rings with enough invertible ideals and torsionfree cancellation over neoclassical orders.*

dos Santos, Josenildo, *Some algebraic topological concepts in critical point theory.*

Sardis, Robert M., *Robotic singularities and control.*

Schroeder, Gary H., *$L^p(\mathbf{R}^N)$ bounds $(1 \leq p \leq \infty)$ on solutions of $u_t - \Delta\varphi(u) = f$ set in $L^1(\mathbf{R}^N)$.*

Shen, Shanpu, *Contributions to the theory of waves on currents of ideal fluids.*

Stockbridge, Richard Hamilton, *Time-average control of Martingale problems.*

Wade, Bruce Alan, *Stability and sharp convergence estimates for symmetrizable difference operators.*

Watson, David Kirk, *Smoothness in parameter and singular integrals with mixed homogeneity.*

Wong, Peter Ngai-Sing, *Equivariant Nielsen fixed point theory for G-maps.*

STATISTICS

Ahn, Sung K., *A study of multivariate time series with reduced rank structures and partial nonstationarity.*

Hamada, Michael, *Studies on incomplete and ordered categorical data from industrial experiments.*

Lindstrom, Mary Judith, *Linear and nonlinear mixed-effects models for repeated measures data.*

Lohr, Sharon, *Accurate multivariate estimation using double and triple sampling.*

Shao, Jun, *On resampling methods for variance estimation and related topics.*

University of Wisconsin, Milwaukee
(2;1,0,0,0,1,0,0)

MATHEMATICAL SCIENCES

Loustaunau, Philippe, *Large subdirect products of modules.*

Sridharma, Selvaratnam, *Sampling theorems.*

WYOMING

University of Wyoming
(2;1,1,0,0,0,0,0)

MATHEMATICS

Roe, Robert Paul, *Inverse limit spaces and dynamics of continuous maps on finite graphs.*

STATISTICS

Pawel, David, *Conditional simulation of Gaussian random fields.*

CANADA

Dalhousie University
(2;1,0,0,1,0,0,0)

MATHEMATICS, STATISTICS AND COMPUTING SCIENCE

Merkovsky, Robert E., *Nearly convergent procedures for convex and large scale optimization based on linear programming.*

Rouhani, Hassan, *Classification of certain non-commutative three-tori.*

McGill University
(2;1,0,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Melkonian, Sam, *Nonlinear waves on thin films and related phenomena.*

Rumbos, Beatriz, *A sheaf representation for non-commutative rings.*

McMaster University
(1;1,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Gaur, Abhay Kumar, *Relative numerical ranges of elements of Banach and L.M.C.-algebras.*

Queen's University
(4;3,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Granville, Andrew James, *Diophantine equations with varying exponents.*

Jahan, Rowshan, *Survival time models and residuals analysis.*

Lorenzini, Anna, *On the Betti numbers of points in projective space.*

Sodhi, Amarjit Singh, *On the conductor of points in P^2.*

Ottawa-Carleton Institute
(7;6,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Ahmed, Syed Ejaz, *Various strategies of point estimation under uncertain prior information.*

Donnelly, Roderick Kerry, *Some contributions to analysis: A new space of generalized functions for integro-differential equations involving Hilbert-transforms and a note on the non-nuclearity of a space of test-functions on Hilbert-space.*

Jeffs, Janice Elaine, *On the general theory of graph grammars.*

Moshi, Augustine Masumbuko, *Matching and stable cutsets in graphs.*

Murdoch, Duncan James, *Models and methods in the risk assessment of chemical carcinogens.*

Remillard, Bruno, *Large deviations and laws of the iterated logarithm for multidimensional diffusion processes with applications to diffusion processes with random coefficients.*

Schmuland, Byron Allan, *Dirichlet forms and infinite dimensional Ornstein-Uhlenbeck processes.*

Simon Fraser University
(2;1,0,0,0,0,1,0)

MATHEMATICS AND STATISTICS

Wismath, Shelly L., *Hyperidentity and hypervariety results for varieties of semigroups.*

Zhou, Huishan, *Homomorphism properties of graph products.*

Université de Montréal
(9;7,0,0,0,2,0,0)

MATHÉMATIQUES ET STATISTIQUE

Ben El Mechaïekh, Hichem, *Quelques principes topologiques en analyse convexe.*

Blanchet, Pierre, *Théorèmes de fusion et du dualité pour les solutions d'équations elliptiques.*

Deguire, Paul, *Théorèmes de coincidences. Théorie de minimax et applications.*

El Amiri, Abdeljalil, *Equations différentielles dans les espaces de Banach.*

Mghazli, Zoubida, *Une méthode mixte pour les problèmes d'hydrodynamique.*

Piché, Claude, *Treillis apparentés aux groupes abélens de torsion.*

Raïssi, Nadia, *Analyse proximale en optimisation.*

Rheffouli, Mohammed Reda, *Classes d'opérateurs pseudo-différentiels.*

Zaoui, Mostafa, *Sous-algèbres maximales et automorphismes des algèbres simples complexes.*

Université Laval
(5;5,0,0,0,0,0,0)

MATHÉMATIQUES, STATISTIQUES ET ACTUARIAT

Ider, Mostefa, *Calcul symbolique dans les classes de fonctions indéfiniment dérivables et quasi-analyticité généralisée.*

Jamali, Abdelhak, *Sur le théorème du maximum de N. Korevaar pour la fonction de concavité, extension au cas des solutions faibles.*

Ouellet, Michel, *Le problème des diviseurs de Dirichlet et la fonction zêta de Riemann.*

Tonga, Marcel, *Couplages sur les lambda-algèbres.*

Tsai, Chi-Te, *Local Carleman classes of infinitely differentiable functions and their topological properties.*

University of Alberta
(3;3,0,0,0,0,0,0)

MATHEMATICS

Forrest, Brian Edmund, *Amenability and ideals in the Fourier algebra of a locally compact group.*

Nazzal, Shakir Hamid, *On the centrality of certain finitely generated soluble groups.*

Yang, Zhuocheng, *Some topological and combinatorial properties of amenable groups and semigroups.*

University of Saskatchewan
(1;1,0,0,0,0,0,0)

MATHEMATICS

Mashhood, Bahman, *The index in type II_1-factors.*

University of Toronto
(13;9,3,1,0,0,0,0)

MATHEMATICS

Behera, Akrur, *Homotopy theory in groupoid enriched categories.*

Brown, Jason Ira, *A theory of generalized graph colourings.*

Burke, Maxim Robert, *Some applications of set theory to measure theory.*

Churchard, Peter William, *Proper knot theory in open three-manifolds.*

Guinand, Paul Scott, *The structure of quasinilpotent operators.*

Jessup, Barry John, *Rational Lusternik-Schnirelmann category and a conjecture of Ganea.*

Kim, Yang Kon, *Regular germs for p-adic $Sp(4)$.*

Lee, Wai-Ming Felix, *A mean ergodic theorem for multiparameter superadditive processes on Banach lattices.*

Moorhouse, Guy Eric, *Unitary and other linear groups acting on finite projective planes.*

Zorboska, Nina, *Composition operators on weighted Hardy spaces.*

STATISTICS

Bagchi, Parthasarathy, *Bayesian analysis of directional data.*

Ghosh, Sucharita, *Some tests of normality using methods based on transforms.*

Keen, Kevin John, *Estimation of intraclass and interclass correlations.*

University of Western Ontario
(2;1,0,0,0,1,0,0)

APPLIED MATHEMATICS

Kocabiyik, Serpil, *A study of Oseen flow using integral conditions.*

MATHEMATICS

Zelewski, Piotr, *Generalization of the Segal conjecture.*

University of Windsor
(1;0,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Phillips, Abraham, *A study of the variance estimators of the Mantel-Haenszel log-odds-ratio estimate.*

Doctoral Degrees Conferred 1986–1987
Supplementary List

The following list supplements the list of thesis titles published in the November 1987 *Notices*, pages 1087–1011, and the April 1988 *Notices*, page 534.

CALIFORNIA

University of California, Berkeley
(2;0,0,0,0,0,0,2)

BIOSTATISTICS

Black, Dennis M., *Statistical issues in the analysis of blood pressure data in the presence of treatment.*

Lo, Sing Kai, *Computer intensive statistical methods for population genetic models.*

MINNESOTA

University of Minnesota, Minneapolis
(1;0,1,0,0,0,0,0)

STATISTICS

Chaiyakarn, Pintip, *Minimizing the expected time to the goal.*

RHODE ISLAND

Brown University
(1;0,0,0,0,1,0,0)

APPLIED MATHEMATICS

McGwier, Robert Westmoreland, *Regular perturbations and nonlinear filtering.*