Doctoral Degrees Conferred 1983–1984

THE ANNUAL AMS list of doctoral degrees in the mathematical sciences and related subjects reports 789 degrees conferred between July 1, 1983, and June 30, 1984 by 205 departments in 139 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. Mathematics education; 7. Other.

ALABAMA

Auburn University
(2;2,0,0,0,0,0,0)

MATHEMATICS

Hamm, Rose Condon, *Embedding theorems for triple systems.*

Walsh, John T., *Marczewski sets, measure and the Baire property.*

University of Alabama, Birmingham
(1;0,1,0,0,0,0,0)

BIOSTATISTICS AND BIOMATHEMATICS

Shamsa, Falah Hassan, *Families of survival models in clinical trials and a multivariate methodology of estimation applicable to cancer research data.*

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

MANAGEMENT SCIENCES AND STATISTICS

Davis, Reuben Dean, *A process for selecting and breeding plants based on multiple objective linear programming.*

Wang, Huang-San Samuel, *On estimation of stationary points of a response surface function.*

ARIZONA

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

MATHEMATICS

Bank, Edward James, *Pollaczek type polynomials and functions.*

University of Arizona
(5;2,0,0,0,3,0,0)

APPLIED MATHEMATICS

Gayek, Jonathan Edward, *Approximating reachable sets for a class of linear systems subject to bounded control.*

Xaba, Abraham Busa, *Maintaining an optimal steady state in the presence of persistent disturbances.*

MATHEMATICS

Pickrell, Doug, *Spin extensions and measures of infinite dimensional Grassmann manifolds.*

Roten, Charles, *The structure and properties of an approximate solution to a system of reaction-diffusion equations.*

Ullery, William Davis, *The isomorphism problem for commutative group algebras.*

ARKANSAS

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

MATHEMATICAL SCIENCES

Hiremath, Mahesh M., *Joint graphs, cyclic graphs and graphs with maximum local connectivity less than five.*

CALIFORNIA

California Institute of Technology
(7;2,0,0,0,5,0,0)

APPLIED MATHEMATICS

Reinelt, Douglas A., *The penetration of a finger into a viscous fluid.*

Robinson, Allen Conrad, *Existence and stability of vortices and vortex arrays.*

Simmen, Jeffrey, *Steady deep-water waves on a linear shear current.*

Smyth, Noel Frederick, *Part I: Soliton on a beach and related problems; Part II: Modulated capillary waves.*

Tanveer, Saleh A., *Topics in 2-D separated vortex flows.*

MATHEMATICS

Fowler, Joel Christopher, *Topics in linear spaces and projective planes.*

Mikolič-Torreira, Igor, *Norm constant holomorphic functions on Banach spaces.*

Claremont Graduate School
(2;2,0,0,0,0,0,0)

MATHEMATICS

Larson, Suzanne, *Convexity conditions on a class of lattice ordered rings.*

Zachariah, Thomas M., *Stochastic and deterministic sets.*

Naval Postgraduate School
(1;1,0,0,0,0,0,0)

OPERATIONS RESEARCH

Kisi, Takasi, *Optimization of artificial dispersion in salvo firing.*

Stanford University
(34;2,5,0,6,0,0,21)

ENGINEERING-ECONOMIC SYSTEMS

Agogino, Alice, *A primal-dual algorithm for constrained generalized polynomial programming: Application to engineering design and multiobjective optimization.*

Ansu, Yaw, *An exchange rate system for an economy with parallel markets.*

Berman, Lawrence Edward, *Incentives for vertical integration in the information services industry.*

Brown, Pamela Clark, *The design of incentive-compatible procurement contracts that allow risk-sharing.*

Dhebar, Anirudh S., *Theory of optimal dynamic pricing and market equilibria for goods with positive demand externalities.*

Dopfel, Frederick Edward, *A composite investor criterion for capital budgeting.*

Duffie, J. Darrell, *Advances in general equilibrium theory.*

Edwards, Gonzalo, *An analysis of Chilean wheat imports.*

Gieringer, Dale, *Drugs and choice: A consumer choice analysis of FDA drug regulation.*

Herriott, Scott Robert, *The political economy of partnerships with applications to power pooling in the electric utility industry.*

Khanna, Anupam, *An approach to modelling systems of political economy: Towards introducing the notion of power in economic analysis.*

Lamont, Alan Duryea, *Strategies for running predictive models.*

MacQuhàe, Nelson Guillermo, *A dynamic macro-economic interactive planning support system for policy assessment in Venezuela.*

Manuel, Ernest H., *Economic effects of air pollution on production: Estimates for selected manufacturing industries.*

Metcalfe, Murray Robert, *The adoption of an innovation in systems of interconnected technologies.*

Mir, Anjum Altaf, *The strategic implications of varying environments: Aspects of decision making under instability.*

Olmsted, Scott Mostyn, *On representing and solving decision problems.*

Razavi, Hamid, *Generalized dynamic system descriptions: Rectangular descriptor systems.*

Regulinski, Stephan G., R&D *portfolio selection.*

Samuelson, Ralph Dale, *Regulation and efficiency in a public utility: The economics of the natural gas pipeline and distribution industry.*

MATHEMATICS

Foddy, Marjorie Ellen, *An analytic solution for the stationary distribution of Brownian motion with drift confined to a quadrant by oblique reflection.*

King, Jonathan, *Another counter example of ergodic theory.*

Pei, Hsu, *Reflecting Brownian motion, boundary local time and the Neumann problem.*

OPERATIONS RESEARCH

Anstreicher, Kurt Martin, *Generation of feasible descent directions in continuous time linear programming.*

Broadie, Mark Nathan, *Piecewise linear methods for solving equations.*

McCormick, Seth Thomas, V, *A combinatorial approach to some sparse matrix problems.*

Preckel, Paul Veitch, *Intertemporal equilibrium models: Development and results.*

Rosenberg, Adam Nathan, *Numerical solution of systems of simultaneous polynomial equations using continuous homotopy method.*

Roundy, Robin Otho, *98%-effective lot-sizing for multi-item multi-stage production/inventory systems.*

STATISTICS

Green, Timothy Allen, *Asymptotic enumeration of Latin rectangles and associated waiting times.*

Henry, David H., *Multiplicative models in projection pursuit.*

Hogan, Michael Leo, *Problems in boundary crossing for random walks.*

Huh, Myung-Hoe, *Regression analysis of multicollinear data.*

Therneau, Terry M., *Variance reduction techniques for the bootstrap.*

University of California, Berkeley
(34;20,0,1,6,6,0,1)

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

DeGuia, Arthur Araujo, *Design of a hierarchial production planning and inventory control system for a consumer products manufacturing network.*

Hackman, Steven Todd, *A general model of production: Theory and application.*

Ireson, Robert Grant, *Information transfer structures, a model of formal analysis addressing the effects of formulation on the interpretation of results.*

Karayel, Mahmut Nedim, *Dual based heuristics for capacity-constrained production scheduling.*

Kasper, Martin, *Production planning of capacitated, multi-stage, discrete manufacturing systems.*

Miller, Douglas Alan, *A class of topological oriented matroids with some applications to non-linear programming.*

Politof, Themistocles, *A characterization and efficient reliability computation of $\Delta - y$ reducible networks.*

Shamir, Ron, *On the efficiency of simplex method.*

MATHEMATICS

Anderson, Christopher Radcliff, *Vortex methods for flows of variable density.*

Caldwell, Chris Kelly, *The elliptic curve $aX^3 + bY^3 + cZ^3 = dXYZ$.*

Christy, Joseph Parsons, *Anosov flows on three-manifolds.*

Djomehri, Mohammad Djahed, *Moving finite element solution of systems of partial differential equations in 1-dimension.*

Donmez, Dogan, *On the degree of symmetry of product manifolds.*

Ebrahimzadeh, Elizabeth Shahnaz, *On the sums of a certain arithmetic function.*

Enomoto, Kazuyuki, *Contributions to the geometry of submanifolds of codimension bigger than one in Eculidean space.*

Fan, Paul Shih, *Amalgams and trees with prime valence.*

Fox, Jeffrey Stephen, *Harmonic analysis on algebraic solvable groups.*

Gompf, Robert Ernest, *An invariant for Casson handles, disks, and knot concordance.*

Hellerstein, Nathaniel Shawn, *Diamond: A four-valued logic of paradox.*

Hobby, David Charles, *Algebra derived from minimal congruences.*

Hochwald, Scott Howard, *The uniqueness of the adjoint operation.*

Krasny, Robert, *A numerical study of Kelvin-Helmholts instability by the point vortex method.*

Ng, Kwok Choi, *Contributions to the computation of the martix exponential.*

Perlman, Mirta Beatriz, *On the accuracy of vortex methods.*

Ryan, John Gerard, *Extensions of representations of Lie algebras.*

Rychlik, Marek Ryszard, *Invariant measures and the variational principle for Lozi mappings.*

Saunders, Gregg Willard, *Iteration of rational functions of one complex variable and basins of attractive fixed points.*

Sing, Banson, *Decompostion of certain principal semi-AFLs.*

Ventura, Belisario Augusto, *On spectral subspaces of covariant representations of C^*-algebras.*

Viet, Ngo Nhu Phu, *Automatic continuity in algebras of differentiable functions.*

Wadge, William Wilfred, *Reducibility and determinateness on the Baire space.*

Walsh, Shelley Lauren, *Cyclic vectors for the backward Bergman shift.*

Yang, Jae-Heun, *Einstein-Hermitian vector bundles.*

Zandi, Ahmad, *Quaternionic Kahler manifolds and their twister spaces.*

University of California, Davis
(2;2,0,0,0,0,0,0)

MATHEMATICS

Iraniparast, Nezam, *Qualitative behavior of solutions of the Goursat problem for hyperbolic differential equations.*

Kunitaka, Shoji, *On right self-injective regular semigroups.*

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

MATHEMATICS

Davidson, Mark Gregory, *The harmonic representation of U(p,q) and its connection with the generalized unit disk.*

University of California, Los Angeles
(11;6,3,0,0,2,0,0)

BIOSTATISTICS

Chun, Calvin Siu Yuen, *Testing equality of two multiple correlation coefficients.*

Cohen, Betty Jo, *Prediction theory approach to multistage sampling with unknown cluster size.*

MATHEMATICS

Brenan, Kathryn Eleda, *Stability and convergence of difference approximations for higher index differential-algebraic systems with applications in trajectory control.*

Brenner, Charles Hallam, *Asymptotics of partition functions.*

Chou, Jine-Phone, *Multivariate exponential families: An identity and the admissiblity of standard estimation.*

Hsueh, Yuang-Cheh, *Varieties generated by lattices not containing a given partially ordered set.*

Jennings, George Alan, *Algebro-geometric invariants arising from the local differential geometry of projective varieties.*

Lin, Kai-Ching, *Harmonic analysis on the bidisc.*

Moss, Lawrence Stuart, *Power set recursion.*

Rimbey, Scott Everett, *Transonic jets: A numerical approach in the hodograph plane.*

Rothstein, Mitchell Jay, *Supermanifolds over an arbitrary graded commutative algebra.*

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

MATHEMATICS

Moghadam, Hosien Said, *Compression operators and a solution to the bandwidth problem of the product of n paths.*

Moussavi, Saadat, *Generalized two parametric "SOR" method for linear sparse systems.*

Shabell, Barbara Jo, *Computable error estimates resulting from modifications of Newton's method for finding roots.*

University of California, San Diego
(7;3,2,0,0,0,0,2)

MATHEMATICS

Egecioglu, Omer, *Combinatorial proofs of identities for symmetric functions.*

Fletcher, Evan Martin, *Holomorphic mappings and invariant metrics on the unit ball of $n \times n$ matrices.*

Fochler, Michael, *Potential theory of random processes.*

Goldstein, Larry Mark, *Extensions of stochastic approximation procedures.*

Johnson, Roger William, *Simultaneous estimation of generalized Pearson means.*

Kaschube, Paul August, *Matroid algorithms, recursion and the subgraph homeomorphism problem.*

Kemp, Paul Martin, *Focal and focal-cut points.*

University of California, Santa Barbara
(8;5,2,0,0,1,0,0)

MATHEMATICS

Deretsky, Tatiana, *Abelian inverse property neofields: Existence and algebraic structure.*

Deretsky, Zakhar Yuryevich, *On the Smith Normal form for (v, k, λ) designs.*

Haussermann, John William, IV, *Generalized porosity characteristics of a residual set of continuous functions.*

Hsu, Lifang, *New procedures of group testing problem based on Huffman lower bound and Shannon entropy criteria.*

Janeba, Mark Riley, *Analytic structures in certain compactifications of the unit ball and polydisc in C^2.*

Nemzer, Dennis, *Boehmians as a F-space.*

Rodriguez Esquerdo, Pedro J., *Group testing to identify the sample minimum from a discrete uniform distribution.*

Wilson, Greg, *A family of modular functions: Construction and computer application.*

University of California, Santa Cruz
(2;1,0,0,0,0,0,1)

MATHEMATICS

Hartsfield, Nora Anne, *The toroidal splitting number of the complete graph K_n.*

Sarli, John, *On the maximal subgroups of ${}^2F_4(q)$.*

COLORADO

Colorado State University
(9;2,4,0,0,3,0,0)

MATHEMATICS

Chien, Peter Cheng-Sheng, *Continuation and local perturbation for numerical treatment of simple and non-simple bifurcations.*

Huotari, Robert Heikki, *Best L_1 approximation by nondecreasing functions.*

Nagata, Kenneth Wayne, *Codimension two bifurcation in double-diffusive convection.*

Strate, Gordon Joseph, *A multilevel scheme for the Cauchy-Riemann equations.*

STATISTICS

Cline, Daren B. H., *Estimation and linear prediction for regression, autoregression and ARMA with infinite variance data.*

Gonzalez-Cossio, Felix Valerio, *Estimation of the parameters of pareto distribution by order statistics and empirical Bayes procedures.*

Halteman, Edward James, *Location estimation in tow dimensions.*

Leiva, Ricardo Anibal, *Properties, convergence and range behavior of shifting level processes.*

Vecchia, Aldo Vincent, *Aggregation and estimation for periodic autoregressive-moving average models.*

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

MATHEMATICS

Baltus, Christopher, *Limit-periodic continued fractions: Value regions and truncation error bounds.*

Merrill, Kathy Donovan, *Cohomology of step functions under irrational rotations.*

Meyers, Charles, *Topological and statistical stability of dynamical systems.*

Quinn, Terrence Raymond, *Exponential L^2 and uniform convergence of a class of infinite dimensional diffusion and jump processes.*

Shultz, Gerald, *Computationally practical globally convergent algorithms for unconstrained and linearly constrained optimization.*

University of Northern Colorado
(4;0,1,0,0,0,0,3)

MATHEMATICS AND APPLIED STATISTICS

Al-Heeti, Khalaf Nassar, *Judgment analysis technique applied to readability prediction of Arabic reading material.*

Boynton, Mary, *Academic and social success of Colorado migrant children: Perceptions by child, tutor, teacher, and parent.*

Britton, Gary L., *A history of some recent applications of survey sampling for human populations.*

Jost, Allen P., *Residential property tax equity in Greeley, Colorado.*

CONNECTICUT

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

MATHEMATICS

Goeters, Herman Pat, *Some injective classes.*

Venugopalan, Poothampilly, *Z-continuous partially ordered sets and union complete subset systems.*

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

MATHEMATICS

Madden, James Joseph, *Two methods in the study of k-vector lattices.*

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

MATHEMATICS

Bhate, Hemant, *Discrete scattering theory.*

Chatzidakis, Zoé Maria, *Model theory of profinite groups.*

Smith, Stuart Thomas, *Nonstandard syntax and semantics and full satisfaction classes for models of arithmetic.*

Wildberger, Norman John, *Quantization and harmonic analysis on nilpotent Lie groups.*

STATISTICS

Possolo, Antonio M. G., *Spatial point processes.*

Zelterman, Daniel, *Goodness of fit tests for large sparse tables of categorical data.*

DELAWARE

University of Delaware
(7;1,1,0,4,0,1,0)

MATHEMATICAL SCIENCES

Carlson, Dean Allen, *On the existence of optimal solutions for infinite horizon optimal control problems.*

Chakravarthy, Srinivasaraghavan, *A stochastic model for two servers sharing a common tool magazine and its analysis.*

Flam, Sjur Didrik Beck, *Resource management under uncertainty.*

Hoerl, Roger Wesley, *A simulation of biased and subset selection regression techniques.*

Katsuura, Hidefumi, *Set functions and continous mappings.*

Kumar, Seshavadhani, *A simulation study of a multi-nodal communication network with contention.*

Morningstar, Kay, *Self-teaching enrichment modules on modern applications of mathematics for talented secondary students and evaluation of effective utilization through an original prediction model.*

DISTRICT OF COLUMBIA

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

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Brick, John Michael, *Bootstrap methods for finite population sampling.*

Samuhel, Michael, *A general approach to the missing data problem.*

George Washington University
(7;1,1,0,5,0,0,0)

MATHEMATICS

Mifflin, Thomas, *Almost periodic selections.*

OPERATIONS RESEARCH

Blackwell, Louis Mason, II, *Filtering in colored noise–a Bayesian perspective: Applications to accelerated life testing.*

Jackson, Richard Henry Frymuth, *Tensors, polyads, and high-order methods in factorable programming.*

Kyparisis, Jerzy, *Sensitivity and stability for nonlinear and geometric programming: Theory and applications.*

Sabbagh, Mohammad Saiid, *A general lexicographic partial enumeration algorithm for the solution of integer nonlinear programming problems.*

Sofer, Ariela, *Efficient matrix methods for solving nonlinearly constrained optimization problems via Newton's method when the projected Lagrangian Hessian is given in dyadic form.*

STATISTICS

Meinhold, Richard James, *A robustification of the Kalman filter via the Bayesian approach.*

FLORIDA

Florida State University
(3;1,1,1,0,0,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Pacheco, Peter, *K_{-i} obstructions to factoring an open manifold.*

Zemankova-Leech, Marie, *Fuzzy relational data bases.*

STATISTICS

Rasp, John Milton, III, *Determining a sufficient level of inter-rater reliability.*

University of Florida
(6;0,4,0,1,1,0,0)

INDUSTRIAL AND SYSTEMS ENGINEERING

Chen, Mei-Lung, *Location problems on tree-like networks.*

Lawphongpanich, Siriphong, *Decomposition techniques for the traffic assignment problem.*

STATISTICS

Breen, Timothy, *On the combination of 2×2 contingency tables.*

Chen, Wen-Jen, *Directional data and some tests of hypothesis.*

Groggel, David John, *Asymptotic nonparametric confidence intervals for the ratio of scale parameters in balanced one-way random effects model.*

Kezouh, Abbas, *Association models for cross-classification having ordered categories.*

University of Miami
(5;3,0,0,0,0,0,2)

MATHEMATICS AND COMPUTER SCIENCE

Cruz, Eliseo Guillermo, *On monotone methods and the solution of nonlinear integral equations of Hammerstein type.*

Elkhoury, Walid N., *Linear skew product flows, exponential dichotomies and structural stability.*

Jagadish, Mysore, *Sequential technique in optimization.*

Marin, Myriam M., *The multiplier theorem.*

Martinez, Victor J., *On Fatou's theorem and an extension of Rudin.*

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

MATHEMATICS

Liles, Albert Douglas, *Mixed and memory fading forecasting models.*

Steele, David Arthur, *A commentary on the correlated random walk: Some additional results and a two-step correlation.*

GEORGIA

Emory University
(2;2,0,0,0,0,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Fichtner, Ronald Raymond, *The closed graph theorem and perfect sequence spaces.*

Pedersen, John F., *Confluence methods and the word problem in universal algebra.*

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

MANAGEMENT

Lowe, James K., *Modelling with integer variables.*

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

MATHEMATICS

Argyros, Ioannis Konstantinos, *Quadratic equations in Banach space, perturbation techniques and applications to Chandrasekhar's and related equations.*

Brown, Jeffrey Lawrence, *Local codimension one splitting.*

Hurd, Spencer Peyton, *0-primitive lattice-ordered permutation groups.*

Yokura, Shoji, *Polar classes and Segre classes on singular projective varieties.*

STATISTICS AND COMPUTER SCIENCE

Prince, Robert H., *Selecting the best population with a preliminary test.*

HAWAII

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

PUBLIC HEALTH SCIENCES

Shiono, Patricia, *Maternal exposure to tobacco, alcohol, and caffeinated beverages and the occurrence of spontaneous abortions.*

IDAHO

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

MATHEMATICS

Waters, Steven Ray, *Inertia theory for transformations* $H \to \sum_{i,j=1}^{s} g_{ij} A_i H A_j^*$.

ILLINOIS

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

MATHEMATICS

Miller, Mark, *Computer-oriented application modules for abstract algebra.*

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

INDUSTRIAL ENGINEERING AND MANAGEMENT SCIENCES

Knapp, Connie M., *Factors influencing formal and informal key communicator effectiveness in the multidivision industrial corporation.*

Schneider, Michael H., *Single commodity spacial equilibria: A network complementary approach.*

MATHEMATICS

Bouzar, Nadjib, *Strict C-sequences: A class of Martingale-like sequences.*

Joshua, Roy, *Spanier-Whitehead duality and Becker-Gottlieb transfer in étale homotopy.*

University of Chicago
(5;3,1,0,0,1,0,0)

MATHEMATICS

Garcia, Sonia Maria Fidelis, *Mixed finite element methods for semilinear second order parabolic problems.*

Hudson, Steven M., *Polynomial approximation in Sobolev spaces.*

Muder, Douglas Jacob, *Zero cycles on del Pezz surfaces over local and global fields.*

Scott, Ronald L., *Fourier transforms of orbital integrals for* GL_2.

STATISTICS

Lahiff, Maureen, *Bayes and likelihood methods for prediction and estimation in the AR (1) model.*

University of Illinois, Chicago
(2;2,0,0,0,0,0,0)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Ahlbrandt, Gisela E., *Totally categorical structures of modular type.*

Winker, Steven Karl, *Quandles, knot invariants, and the N-fold branched cover.*

University of Illinois, Urbana-Champaign
(9;4,0,0,0,3,0,2)

MATHEMATICS

Beezer, Robert Arnold, *Polynomials of the adjacency matrix of a graph.*

Challener, David Carroll, *A question of completeness of expansions arising from a method of solving the biharmonic problem.*

Haken, Armin, *Computational complexity.*

Menninga, Nadine Louise, *Immersions of positively curved manifolds into manifolds with curvature bounded above.*

Raggi-Cardenas, Alberto Gerardo, *Zeta function defined by two-sided ideals.*

Wu, Jinn-Wen, *Nonlinear problems in mechanics and some other areas.*

THEORETICAL AND APPLIED MECHANICS

Kurath, Peter, *Extension of the local strain fatigue analysis concepts to incorporate time dependent deformation in Ti-6A-4V at room temperature.*

Pott, John, *Two studies in evanescent wave propagation.*

Sehitoglu, Huseyin, *Characterization of thermo-mechanical fatigue.*

INDIANA

Indiana University
(6;3,1,0,0,1,0,1)

MATHEMATICS

Adams, Gregory T., *The Bergman bilateral shift.*

Namazi, Javad, *On a singular integral.*

Ralescu, Anca Luminita, *General rates of decay for weighted empirical processes.*

Schaeffer, John, *Wave equations with positive nonlinearities.*

Seoh, Munsup, *Rate of convergence to normality and Edgeworth expansions for signed linear rank statistics with regression constants.*

Williams, John K., *Some problems in function theory.*

Purdue University
(23;3,6,0,8,5,0,1)

INDUSTRIAL ENGINEERING

Cochran, Jeffery Keith, *Improving the productivity of the American automobile: A stochastic process view.*

Fox, Dale Robert, *Parametric and algorithmic solutions for the steady-state analysis of Markovian queueing systems using graphical enumeration.*

Kang, Keebom, *Confidence interval estimation via batch means and time series modeling.*

Klein, Cerry Martin, *Duality in dynamic programming.*

Lin, Zone-Ching, *A quasi-steady state thermo-elasto-plastic analysis of stress distribution in the workpiece in machining.*

Maimon, Oded Zvi, *Activity controller for a multiple robot assembly cell.*

Matsumoto, Yoichi, *Mechanics of chip formation and its effect on the surface integrity of hardened steels.*

Nagaraj, Kolinjuwadi Sankaran, *The a posteriori approach for discrete optimization.*

Nelson, Barry Lee, *Variance reduction in simulation experiments: a mathematical - statistical framework.*

Reilly, Charles Henry, III, *PIPZI: A partial enumeration algorithm for pure 0-1 polynomial integer programming problems.*

Sharit, Joseph, *Human supervisory control of a flexible manufacturing system: An exploratory investigation.*

Vinod, Balakrishnan, *Queueing models for flexible manufacturing systems subject to resource failure.*

MATHEMATICS

Arzberger, Peter William, *A mathematical treatment of regular inbreeding systems.*

Brophy, John Francis, *Computation of capacity, polarization and added mass.*

Frohliger, John Anthony, *Maximal homotopy Lie subgroups of maximal rank.*

Ganapathy, Jayanthi, *$L^{p,q}$ inequalities for the Hardy-Littlewood maximal functions and the Hardy operator.*

Kraft, Jürgen, *Singularity of monomial curves.*

STATISTICS

Chen, Shun-Yu, *Restricted risk Bayes estimation.*

Huang, Mong-Na Lo, *Design problems in model robust regression and exact D-optimality.*

Huang, Wen-Jang, *On a study of point processes arising in certain live situations.*

Lau, Tai Shing, *Theory of canonical moments and its applications in polynomial regression.*

Leu, Lii-Yuh, *Contributions to multiple decision theory.*

Taylor, Wayne A., *Selecting efficient single stage and double stage attribute sampling plans of a given power.*

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

MATHEMATICS

Elko, Constance Louise, *Embedding 4k-manifolds up to cobordism.*

Elko, David, *Extending semifree actions on finite groups on spheres.*

Fania, Maria Lucia, *Extension of modifications of ample divisors on four-folds.*

Higgins, Aparna Narayan Pradhan, *Heterogeneous algebras associated with non-indexed algebras, a representation theorem on weak automorphisms.*

Khor, Hoe Peng, *On the automorphisms of the unipotent radical of certain parabolic subgroups of groups of Lie type A.*

IOWA

Iowa State University
(12;2,9,0,0,0,0,1)

MATHEMATICS

Rockswold, Gary Kent, *Stable variable step stiff methods for ordinary differential equations.*

Smith, Ronald Kenneth, I. *Circumspheres in Hilbert space.* II. *Automatic handling of finite-dimensional, nonassociative algebras.*

Steiner, Donald DeWitt, *Bijectional, generic and permutational models of ZF.*

STATISTICS

Chua, Tin Chiu, *Response errors in repeated surveys with duplicated observations.*

Harter, Rachel M., *Small area estimation using nested-error models and auxiliary data.*

Hung, Hsien-Ming, *Use of transformed LANDSTAT data in regression estimation of crop acreages.*

Lee, Youngjo, *Estimation of multivariate normal mean and its application to mixed linear models.*

Lewis, Jerry, *Some effects of subdivision of finite populations on genetic diversity measures.*

Lin, Cherng-Tarng, *Waiting times for target detection models.*

McNulty, Sallie, *Exact generalized inverses and solution to least squares problems using multiple modulus arithmetic.*

Petenate, Ademir, *Optimal allocation and other aspects of kriging on a line.*

Zamudio, Francisco, *Estimation of Poisson parameters: Maximum likelihood, Bayes, empirical Bayes or compromise?.*

University of Iowa
(7;6,1,0,0,0,0,0)

MATHEMATICS

Boyland, Philip Lewis, *Bifurcations of circle maps/Arnol'd tongues, bistability and rotation intervals.*

Burkholder, Douglas Glenn, *On Azumaya rings.*

Froelich, John, *Compact operators, invariant subspaces and spectral synthesis.*

Gallegos-Jarpa, Gricelda, *Representation theory of* Gl *of a local ring.*

Salas, Hector Nicolas, *C*-algebras of isometries with commuting range projections.*

Tsau, Chichen Michael, *Killers of knot groups.*

STATISTICS AND ACTUARIAL SCIENCE

Manmin, Mookda, *Parameter changes in time series models.*

KANSAS

Kansas State University
(5;1,3,0,0,0,1,0)

MATHEMATICS

Maleki, Pir Mohammad, *An investigation of factors affecting social science students attitudes towards mathematics.*

Ronsse, Gregory, *Sub-manifolds of Saskian manifolds which are tangent to the structure vector field.*

STATISTICS

Albohali, Mohamed Hassan, *A time series approach to the analysis of repeated measures designs.*

Ordonez, Alfred Abelard, Jr., *Applications of sequential methods in observational studies.*

Samaranayake, Vanniarachchige Amaraisi, *Asymptotic properties of sample autocorrelations, least squares estimators and predictors of non-stationary multivariate time series.*

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

MATHEMATICS

Gokhale, Sudhir B., *Joint quasitriangularity of certain pairs of essentially commuting operators.*

Tikoo, Mohan L., *Remainders of H-closed extensions.*

KENTUCKY

University of Kentucky
(6;0,6,0,0,0,0,0,0)

STATISTICS

Hosmane, Balakrishna, *Bias reduction in the estimation of log-linear contrasts and for related chi-square test criteria.*

Leitnaker, Mary Grace, *Delayed and nonlinear stochastic compartmental models.*

Liu, Jen-Pei, *On evaluation of the predictive ability of an estimated response surface.*

Malpass, Peter Gordon, *A queueing analysis of a telecommunications node, and related models.*

Mansouri-Ghiassi, Seied Hossein, *Asymptotically distribution-free tests in balanced two-way layouts.*

Sharma, Subhash C., *On the rates of convergence to asymptotic normality least squares estimators in linear regression model with autocorrelated errors.*

LOUISIANA

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

MATHEMATICS

Bridgland, Michael F., *Geodetic graphs and convexity.*

Tulane University
(6;4,0,0,0,1,0,1)

MATHEMATICS

Ballotti, Michael E., *Modern versions of the theorems of Kneser and Wiener.*

Farag, Saad F. M., *The central measure algebra of a connected Lie group.*

Keith, Verena Sabine, *On invariant bilinear forms on finite dimensional Lie algebras.*

Latiolais, Marion Paul, *Homotopy type versus simple homotopy type in dimension 2.*

Soileau, Peggy Lynn, *Tensor and torsion products of modules over valuation domains.*

Spurr, Michael J., *On the zero set of a homorphic one form.*

MARYLAND

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

MATHEMATICS

Bremser, Priscilla Suzanne, *Some studies on character sums over finite fields.*

Chin, Kok Leang, *On the classification of the finite dimensional Lie algebras generated by two differential operators one with constant coefficients and the other with polynomial coefficients.*

Dellomo, Michael R., *Through the non-simply connected looking glass or the inverse limit of the finite branched cyclic covers of a knot.*

Irk, Sitki, *Operators induced by Gauss sums over finite fields and the algebra generated by these operators.*

University of Maryland, College Park
(14;8,2,0,0,4,0,0)

MATHEMATICS

Chambers, Daniel Warren, *Central and functional central limit theorems for functionals of Gaussian processes.*

Chang, Myron, *Nonparametric estimation for doubly censored data.*

Deanin, Alice Ann, *Mahler's p-adic continued fraction algorithm.*

Gordon, Ben Brent, *Intersections of higher weight cycles and modular forms.*

Katok, Svetlana R., *Modular forms associated to closed geodesics and arithmetic applications.*

Fennell, James, *A p-adic transcendence measure for the Weierstrass* PE*-function.*

Majer, Vaclav, *Numerical solution of boundary value problems for ordinary differential equations of nonlinear elasticity.*

Pearn, Wen-Lea, *Capacitated Chinese Postman problem.*

Reed, George W., *Some properties and applications of higher order crossings.*

Robinson, E. Arthur, Jr., *Ergodic measure preserving transformations with finite spectral multiplicities.*

Rogers, Robert Charles, *Analysis of the nonlinear equations describing the elastic, thermal, and electromagnetic behavior of solids: Existence of solutions of semi-inverse problems.*

Schumer, Peter David, *On the large sieve inequality in an algebraic number field.*

Wun, Lap-Ming, *The effect of misspecified intervention function on parameter estimation of time series models.*

Zettler, George, *Howe duality over finite fields.*

MASSACHUSETTS

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

MATHEMATICS

Deutsch, David, *An integral equation for the solution of non-linear wave equations.*

Heeren, Timothy C., *The robustness of the T-test when applied to ordinal scale D data.*

Sawyer, Ann K., *The Dynamics of piecewise linear mappings of the plane.*

Brandeis University
(6;6,0,0,0,0,0,0)

MATHEMATICS

Boffi, Giandomenico, *The universal form of the Littlewood-Richardson rule.*

Brown, Anne, *A structure theorem for a class of grade three perfect ideals.*

Ko, Ki Hyoung, *Seifert matrices and boundary links.*

Kollar, Janos, *Canonical threefolds.*

Munroe, Carol L., *Orders whose indecomposable nonprojective lattices are irreducible.*

Platt, Mary L., *On the Alexander polynomial.*

Clark University
(1;0,0,0,0,0,0,1)

MATHEMATICS

Bisk, Richard C., *A Markov chain model of smooth muscle contraction.*

Harvard University
(24;8,6,4,3,3,0,0)

APPLIED SCIENCES

Cao, Xi-ren, *Optimization of discrete event dynamic systems.*

Denenberg, Lawrence A., *Computational complexity of logical problems: Formulas, dependencies, and circuits.*

Dumas, William R., *Extended sensitivity analysis in linear programming.*

Huang, Peter H., *Asymptotic and structural stability of signalling equilibria.*

Keyes, David Elliot, *Numerical modeling of steady, laminar free-convective boundary layer flow beneath heated or combusting horizontal surfaces.*

Peck, Stephen R., *Pole placement by constrained output feedback.*

Shasha, Dennis, *Concurrent algorithms for search structures.*

Tay, Yong-chiang, *A mean value performance model for locking in databases.*

Sistla, Prasad A., *Theoretical issues in the design and verification of distributed systems.*

Taylor, Thomas J., *Hypoelliptic diffusions and non-linear control theory.*

BIOSTATISTICS

Accomando, William, *Resistant fitting and diagnostic methods for discrete data analysis.*

Baker, Stuart, *Markov models for categorical longitudinal data.*

Day, Roger, *A general cell kinetics model with applications to cancer treatment.*

DerSimonian, Rebecca, *Combining evidence from different sources.*

Halvorsen, Katherine Taylor, *Estimating population parameters using information from several independent sources.*

Polansky, Marcia, *Robust estimation with applications to the Poisson distribution.*

MATHEMATICS

Bailey, Colin George, *B-degrees for weakly inadmissible B.*

Datskovsky, Boris, *On zeta functions associated with the space of binary cubic forms with coefficients in a function field.*

Dunne, Ed, *Hyperfunction solutions of the zero-rest mass equations and representation theory.*

Gilbert, George, *Analytic multiplicity ones theorems for* GL(n).

Gurevich, Mikhail, *Theory of* ϵ*-representations.*

Kengmana, Thongchai, *Discrete series characters on non-Riemannian symmetric spaces.*

McCallum, William, *The Tate-Shafarevich group of the Jacobian of a quotient of the Fermat curve.*

Ticciati, Robin, *Singularities in moduli spaces of Yang-Mills fields.*

Massachusetts Institute of Technology
(16;11,0,0,1,3,0,1)

MATHEMATICS

DeBlassie, Richard Dante, *Hitting times of Brownian motion.*

Gonzalez, Fulton Beltran, *The Radon transform on Grassmannian manifolds.*

Grant, Caroline Galt, *Entire holomorphic mappings of* C *into surfaces of general type.*

Gregory-Allen, Richard W., *Regarding the evolution of warmed interfacial swells.*

Haddad, Ziad S., *Infinite dimensional flag varieties.*

Haughton, Dominique M. A., *On the choice of a model to fit data from an exponential family.*

Lasaga, Fernando Rene, *Counting full graphs on N sets and squares which block a pentomino.*

Levstein, Fernando, *A classification of involutive automorphisms of an affine Kac Moody Lie algebra.*

Lubarsky, Robert Seth, *Topics in admissibility theory.*

Magnuson, Alan W., *Symplectic singularities, periodic orbits of the billiard ball map, and the obstacle problem.*

Ritter, Niles D., *Progressing wave solutions to nonlinear hyperbolic Cauchy problems.*

Schroeder, Carolyn Lee, *Decay rates of Green's functions for the time independent Schrödinger equation with periodic potentials.*

Sturtevant, Dean G., *Three combinatorial problems.*

Tuckerman, Laurette S., *Formation of Taylor vortices in spherical couette flow.*

Yang, Jin-Gen, *On quintic surfaces of general type.*

OPERATIONS RESEARCH

Matsuo, Hirofumi, *Capacitated lot size problems.*

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

MATHEMATICS

Abadeer, Adel A., *On zeros of solutions of ordinary differential equations.*

Erbland, John P., *Factoring maps through immersions.*

University of Massachusetts, Amherst
(4;3,0,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Bennett, Fredricka Terry, *On a sequence of Markov processes converging to a multivariate Ornstein-Uhlenbeck process.*

Costa, Peter Justin, *The linearization of nonlinear evolution equations.*

Necochea, Alejandro, *Equivariant Euler classes and group actions on Poincaré duality spaces.*

Prisco, Mary Kathryn, *On the structure and classification of nilpotent Lie algebras of maximal rank.*

MICHIGAN

Michigan State University
(7;3,2,0,0,2,0,0)

MATHEMATICS

Abudiak, Fawaz, $\mathbf{Z}_{2_p}$*-actions on the 2-dimensional and the Klein bottles.*

Long, John J., *Hyponormal Toeplitz operators and weighted shifts.*

Martinez, Rafael, *PL homeomorphisms of period* 2^n *on the solid Klein bottle.*

Mohseni, Moghadam Mahmoud, *Homotopy continuation method for nonlinear equations.*

Riazi-Kermani, Mohammad, *Periodic orbits in the modified logistic equation.*

STATISTICS AND PROBABILITY

Schick, Anton, *On adaptive estimation.*

Wang, Wei-hong, *Statistical inference for randomly censored linear model.*

University of Michigan, Ann Arbor
(31;12,15,1,1,0,0,2)

BIOSTATISTICS

Bromberg, Judith, *Modified estimators in log-linear models.*

Chu, Shenghui, *Some aspects of the direction and collinearity factors of Wilks' lambda.*

Hung, Yung-Tai, *Some aspects of discriminant analysis.*

Katz, Barry, *Detection of a random alteration in a multivariate observation based on knowledge of probable direction.*

Mahmoudi, Mohamed, *Using auxiliary information to improve estimates of the population element variances, element covariances, and correlation coefficients.*

Naberhuis-Stehouwer, Sharon Ann, *Some aspects of recovery in interblock information.*

Ruppel, Patricia Kemp, *Drug evaluation using blocking agents in receptor systems consisting of multiple subsites.*

Vonesh, Edward F., Jr., *Relative efficiencies in the multivariate analysis of repeated meaurements.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Golhar, Damodar, *Sequential analysis: Non-stationary processes and truncation.*

Hopp, Wallace John, *Non-homogeneous Markov decision processes with applications to R & D planning.*

Jaraiedi, Majid, *Inspection error modelling and economic design of sampling plans subject to inspection error.*

Umar, Amjad, *The allocation of data and programs in distributed data processing environments.*

Tsui, Louis, *Production scheduling for a fabrication-assembly system.*

MATHEMATICS

Ansari, Mohammed, *On reductive and transitive operator algebras.*

Exner, George R., *Systems of equations in the predual of an operator algebra, the classes* $/A_n$*, and related operators.*

Fenson, Eitan M., *Recursion over continuous type structures.*

Flinn, Barbara Brown, *The geometry of conformal mappings.*

Kim, Hyuk, *Complete left-invariant flat affine structures on simply connected nilpotent Lie groups.*

Koh, Jee Heub, *The direct summand conjecture and behavior or codimension in graded extensions.*

Lamken, Esther Rose, *Coverings, orthogonally resolvable designs and related combinatorial configurations.*

Levenberg, Norman, Jr., *Capacities in several complex variables.*

Levy, Bruce Jay, *A splitting for right angled reflection manifolds.*

Lo, Libo, *On the computational complexity of the theory of Abelian groups.*

Lyons, Russell D., *A characterization of measures on whose Fourier-Stieltjes transforms vanish at infinity.*

Ma, Frank Tzen, *Splitting in module-finite extensions and Cohen-Macaulay modules and algebras.*

STATISTICS

Daghel, Mohamed M., *Asymptotic minimax point estimators with compact parameter space.*

Denby, Lorraine, *Smooth regression functions.*

Kramer, Morrey, *Stopping a size dependent exploration process.*

Rehailia, Mohamed-el-hadi, L_p *expansions for posterior moments with applications in sequential analysis.*

Tsang, Vincent Ying Yin, *Density estimation for censored data.*

Verathaworn, Theeraporn, *Decision theoretic approaches to estimating covariance matrices in the multivariate normal one-sample and two-sample problems.*

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

MATHEMATICS

Hong, Yi, *On helical submanifolds in Euclidean spaces.*

Tan, Xiao-Jiang, *Holomorphic mappings: (1) Classification of embeddings of compact complex manifolds with given normal bundle. (2) The Schwartz lemma for the Skwarcynski distance and a family of biholomorphic invariants.*

Western Michigan University
(2;0,0,0,0,0,0,2)

MATHEMATICS

Gimbel, John, *The chromatic and cochromatic number of a graph.*

Ruiz, Sergio, *On isomorphic decompositions of graphs.*

MINNESOTA

University of Minnesota, Minneapolis
(10;3,3,0,0,1,0,3)

BIOMETRY

McRoberts, Ronald, *Near non-identifiability in non-linear parameter estimation.*

MATHEMATICS

Du, Bau-Sen, *Bifurcations of diffeomorphisms on* R_3.

George, Adel Aziz Michael, *Some results on groups related to compact Riemann surfaces.*

Greene, John R., *Character sum analogues for hypergeometric and generalized hypergeometric functions over finite fields.*

Hernandez, Gaston E., *Existence of solutions of populations problems with nonlinear diffusion.*

Lau, Chi-Ping, *The boundary behavior of solutions of quasilinear second order elliptic partial differential equations arising from geometrical problems.*

Waksman, Peter, *The associated function of a plane polygon.*

STATISTICS

Clayton, Murray K., *Bayes sequential sampling for choosing the better of two populations.*

Tsai, Chih-Ling, *Contributions to the design and analysis of non-linear models.*

Witmer, Jeffrey Alvin, *Multistage decision problems.*

MISSOURI

St. Louis University
(1;1,0,0,0,0,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Ryan, Kara, *A class of affine geometries.*

University of Missouri, Columbia
(3;2,1,0,0,0,0,0)

MATHEMATICS

Lucas, Thomas George, *The annihalator conditions: Property* (A) *and* (AC).

Trautman, David Anthony, *Linear topological properties of non-locally convex Hardy-Orlicz spaces.*

STATISTICS

Tarmast, Ghasem, *Reliability of complex systems.*

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

MATHEMATICS

Rigoli, Marco, *Surfaces with parallel mean curvature vector in a 4-space form.*

Semmes, Stephen, *The Cauchy integral and related operators on smooth curves.*

SYSTEMS SCIENCE AND MATHEMATICS

Cheng, Jing-shiang, *Performance analysis for randomly dispersive optical channels.*

Hill, Stacy D., *Estimation and control on the unit circle.*

Leake, Don H., *Acceleration of iterative processes in a multiprocessor environment.*

Lin, Shin-Yeu, *Emergency control to remedy voltage and thermal violations in a segment of the large scale power system by active and reactive means.*

Stendahl, Steven J., *Functional integrals and stochastic control problems.*

MONTANA

University of Montana
(3;1,1,0,0,1,0,0)

MATHEMATICAL SCIENCES

Boyd, Ernest James, *A model for successional change in a grassland ecosystem.*

Hollister, Robert Ashley, *A correlation coefficient based on maximum deviation.*

Ulsafer, Carol A., *Module categories.*

NEW HAMPSHIRE

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

MATHEMATICS

Halsey, Mark D., *Line closure and the Steinitz exchange axiom: Hartmanis matroids.*

University of New Hampshire
(3;0,1,0,0,1,1,0)

MATHEMATICS

Dick, Thomas Patrick, *An investigation of calculus learning using factorial modeling.*

Kokoska, Stephen Michael, *Statistical methods for analysis of cancer chemoprevention experiment.*

Magness, Carolyn Margaret, *Some problems in Bayesian inference in a nonclassical setting.*

NEW JERSEY

Princeton University
(8;5,2,0,0,1,0,0)

MATHEMATICS

de Shalit, Ehud, *On p-adic L-functions associated with CM elliptic curves and arithmetical applications.*

Ho, Lop-Hing, *Subellipticity of the $\overline{\partial}$-Neumann problem on non-pseudoconvex domains.*

Kuhn, Nathaniel S., *A conjectural inequality on the slice genus of links.*

Redmond, Timothy St. J., *PL equivariant characteristic classes and G-signature.*

Scheinerman, Edward R., *Intersection classes and multiple intersection parameters of graphs.*

Silverberg, Alice, *Mordell-Weil groups of generic polarized Abelian varieties.*

STATISTICS

Morgenthaler, Stephan, *Robust confidence intervals for location and scale parameters: The configural approach.*

O'Brien, Fanny L., *Polyefficient and Polyeffective simple linear regression estimators and the absolute polyefficiency of the biweight regression estimator.*

Rutgers University, New Brunswick
(12;7,2,0,1,2,0,0)

MATHEMATICS

Adams, Norman S., *Set theoretic methods in topos theory.*

Chapin, Steven A., *Periodic solutions of some nonlinear differential-delay equations.*

Cho, Eung Chun, *Smith equivalent representations of generalized quanternion groups.*

Farmer, Joan Eileen, *Mathematical models of one-dimensional non-equilibrium systems.*

Ferreyra, Guillermo Segundo, *The partial differential equations of nonlinear filtering.*

Lindgren, Terence, *Proper morphisms of topoi.*

Maier, Robert Sullivan, *Random Schroedinger operators on a lattice: Rigorous results on the density of states.*

Mitzman, David, *Integral bases for affine Lie algebras and their universal enveloping algebras.*

Opsut, Robert, *Optimization of set assignments for graphs.*

Suh, Dong-Youp, *Smith equivalence of representations.*

STATISTICS

Chiou, Wen-Jau, *Estimating common location of exponential distributions.*

Natarajan, Jayalakshmi, *Sequential James-Stein estimation and related results.*

NEW MEXICO

New Mexico State University
(2;1,0,0,1,0,0,0)

MATHEMATICAL SCIENCES

Kirby, James Carroll, *Admissible variables and extreme point analysis.*

Stelzer, Joerg Mathias, *Ring theoretical criteria for cancellation.*

University of New Mexico
(3;2,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Andradas, Carlos, *Real places in function fields.*

Kim, Hae Kyung, *Statistical properties of generalized nonlinear regression estimators with application.*

Ombe, Hitoshi, *Besov spaces on certain groups.*

NEW YORK

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

MATHEMATICS AND COMPUTER SCIENCE

Baderian, Armen Robert, *Solutions of the random one dimensional Reynolds equation of lubrication theory.*

Vargas, John David, *The Smirnov-Sobelev and Cagniard technique for the solution of the Lamb half-space problem in elastodynamics.*

CUNY, Graduate Center
(5;4,0,1,0,0,0,0)

MATHEMATICS

Hurwitz, Carol M., *On the homotopy of monoids.*

Jarnigan, Richard, *Statistical aspects of data structures for database systems.*

Kalish, Diane, *The Morse index theorem with ends submanifolds.*

Pzena, Howard, *The explicit construction of ring class fields with applications to quadratic forms.*

Sureson, Claude, *Excursion en mesurabilite.*

Clarkson University
(5;1,0,0,0,3,0,1)

MATHEMATICS AND COMPUTER SCIENCE

Briggs, Sanda C., *Topics in nonlinear mathematics.*

Heinssen, Dennis Karl, *Graph theory applications to architecture.*

Kachroo, Pandit Dilaram, *On the Allendoerfer-Eells cohomology of differentiable spaces.*

Knickerbocker, Collen Joseph, I, *Long waves in nonuniform media.*

Santini, Paolo Maria, *Studies on nonlinear evolution equations and the inverse scattering transform.*

Columbia University
(7;5,2,0,0,0,0,0)

STATISTICS

Chang, Fu, *Contributions to the multi-armed bandit problem.*

Liu, Yueh-Chin (Regina), *Histogram estimation of failure rate and some related functions under random censoring.*

MATHEMATICS

Lok, Walter Lawrence, *Deformations of locally homogeneous spaces and Kleinian groups*

Lyubeznik, Gennady, *Set-theoretic intersections and monomial ideals.*

Pittaluga, Marilena, *On the automorphism group of a polynomial algebra.*

Suciu, Alexandru Ion, *Homotopy type invariants of four-dimensional knot complements.*

Wu, Xiaolong, *On the extensions of abelian varieties by affine group schemes.*

Cornell University
(12;4,3,0,3,2,0,0)

APPLIED MATHEMATICS

Housman, David Leo, *Some Noncooperative game models of exchange.*

Pothen, Alex, *Sparse null bases and marriage theorems.*

BIOMETRICS

Evans, John C., *Stagewise selection and classification of multivariate repeated measurements.*

Piegorsch, Walter William, *Admissible and optimal confidence bands in linear regression.*

Sitonik, Wilson K., *Effects of distributional assumptions on the probability of correctly selecting the largest mean in a Model II balanced one-way classification.*

MATHEMATICS

Helou, Charles, *An explicit 2^nth reciprocity law.*

Lou, Jiann-Hua, *Some properties of a special class of self similar processes.*

Odell, David Alan, *Trace constructions in alpha-recursion theory.*

Webb, David Lea, *Grothendieck groups of dihedral and quaternion group rings.*

OPERATIONS RESEARCH

Fox, Robert William, *Asymptotic properties of parameter estimates for strongly dependent random variables.*

Hilliard, Michael Ross, *Weighted voting: Theory and applications.*

Madras, Neal Noah, *A process in a randomly fluctuating environment.*

New York University, Courant Institute
(9;4,0,0,0,5,0,0)

MATHEMATICS

Battifarano, Ernest, *Conservative modification of upwind differencing.*

Bledsoe, Margaret Randolph, *The method of complex characteristics for design of transonic compressors.*

Hsieh, June, *The bad Boussinesq's equation.*

Klingenberg, Christian, *On the stability of triple deck flow.*

Kondopirakis, Emanuel, *A time substitution problem.*

Mullhaupt, Andrew, *Boolean delay equations: A class of semi discrete dynamical systems.*

Sturm, Rachel, *Link cobordism invariants.*

Szyld, Daniel Benjamin, *A two level iterative method for large sparse generalized eigenvalue calculations.*

Tso, Kaising, *Perturbation theorems for nonlinear positive symmetric systems and nonlinear degenerate elliptic-parabolic equations.*

Polytechnic Institute of New York
(4;1,3,0,0,0,0,0)

MATHEMATICS

Bennett, David Alan, *A new sequential group-screening design for factorial experiments.*

Kneisler, Theodore Frederick, *A hybrid K-means clustering method.*

Lawson, John Scott, *Some aspects of the statistical analysis of time to tumor data in carcinogenicity tests.*

Pomerance, Errol, *A generalization in cobordism of the Lefschetz fixed point theorem.*

Rensselaer Polytechnic Institute
(10;1,0,5,0,4,0,0)

MATHEMATICAL SCIENCES

Ahn, John Kwangho, *Automatic map name placement system.*

Barr, Alan, *Geometric modeling and fluid dynamic analysis of swimming spermatozoa.*

Ganser, Gary, *Nonlinear waves in one-dimensional bubbly flow.*

Hagan, Robert, *Dynamic phase transitions.*

Itzikowitz, Samuel, *Theoretical studies of mesoscale eddies and their influence on acoustic transmission through the ocean.*

Kaltofen, Erich, *On the complexity of factoring polynomials with integer coefficients.*

Kandri-Rody, Abdelilah, *Effective methods in the theory of polynomial ideals.*

Narendran, Paliath, *Church-Rosser and related Thue systems.*

Sandberg, Jonathan Sheffer, *The minimum circuit cover problem.*

Spagnuolo, John, *Local recognition of certain digitized curves using automata-theoretic concepts.*

SUNY at Albany
(4;3,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Ali, Mirza W., *Test of equality of expected values of positive definite quadratic forms.*

Cupillari, Antonella, *Inner functions and boundaries for H^∞ on strictly pseudoconvex domains.*

Dabrowski, Romuald, *Rationality of the compact forms of semisimple affine groups.*

Perera, Shelton, *Support points and extreme points of some classes of analytic functions.*

SUNY at Binghamton
(2;2,0,0,0,0,0,0)

MATHEMATICAL SCIENCES

Lawrence, L. Brian, *General product spaces.*

Mahdavianary, Seyed Kazem, *Groups with many subgroups.*

SUNY at Buffalo
(3;2,1,0,0,0,0,0)

MATHEMATICS

Flagg, Robert C., *Integrating classical and intuitionistic mathematics.*

Shambayati, Rahim, *Fourier transforms of distributions with one-sided bounded supports and their products.*

STATISTICS

Chen, Chang-Shang, *On the estimation of system reliabilities.*

SUNY at Stony Brook
(17;9,1,0,0,6,0,1)

APPLIED MATHEMATICS AND STATISTICS

Chen, Dao-Qi, *Methods for function minimization.*

Choi, Young-Myung, *Single vehicle trailer routing and scheduling problem with partial loads, time windows and dwell times.*

Don, Eugene C., *A numerical procedure for the solution of nonlinear eigenvalue problems.*

Kim, Kwang Ick, *Inverse problems for attenuated random transform.*

Lee, Kelvin C., *Numerical study of an orthotropic solid under dynamic loads.*

Ong, Michael King, *Numerical solution of elasto dynamic problems in fracture mechanics.*

Rodriguez, Juan Carlos, *Maximum entropy histograms.*

Xie, Guan-Quan, *Theoretical analysis and computational method of inverse problems of wave equations.*

MATHEMATICS

Cortes, Victor, *About the smoothness of the limiting distribution functions.*

Hurley, John, *The Schur multiplier of the exceptional Lie group G_2.*

Lee, Min Ho, *Conjugation of group theoretical Abelian schemes over an arithmetic variety.*

Moskowitz, Ira, *Volume preserving foliations and diffeomorphism groups.*

Petersen, Troels, *On the geometry of Abelian schemes over arithmetic varieties.*

Purohit, Dayal, *Curvature inequality and certain Toeplitz-like operators.*

Rosenthal, William Evan, *On the cohomology of Lie algebra extensions.*

Sung, Li-yeng, *Gaussian beams.*

Xia, Jingbo, *Traces, indices and spectral theory of Toeplitz operators on multiply connected domains.*

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

MATHEMATICS

Droms, Carl Gordon Arthur, *Graph groups.*

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

MATHEMATICS

Silva, Cesar Ernesto, *On Radon-Nikodym derivatives.*

NORTH CAROLINA

Duke University
(5;3,0,0,0,2,0,0)

MATHEMATICS

Goodrich, John Winston, II, *A mathematical analysis and numerical simulation of inert gas flow in a model avian parabronchial lung.*

Israel, Karen Foster, *Monotone behavior for equilibria of dynamical systems.*

Messer, Thomas Clark, *The propagation and creation of singularities of solutions of quasilinear, strictly hyperbolic systems in one space dimension.*

Micheli, Lucio, *Propagation of singularities for non-strictly hyperbolic semilinear systems in one space dimension.*

Reid, Leslie Foster, *Some results on the lower K-theory of singular affine algebras.*

North Carolina State University, Raleigh
(12;2,3,0,4,0,0,3)

MATHEMATICS

Jensen, David Warren, *Derivations of a prime ring which satisfy a polynomial identity.*

Smith, Marjolein V., *Stochastic differential equations from a modeling point of view with special emphasis on biological applications.*

OPERATIONS RESEARCH

Abdel-Gawad, Ekram Fathy, *Control of arrivals and routing in networks of queues with applications to communication systems.*

Chou, Jaw H., *Contributions to nondifferential mathematical programming.*

Erdem, Ismail, *Three phase sampling for misclassified binary data.*

Rajasekera, Jayantha Ranjith, *Perturbational techniques for the solution of posynomial, quadratic and l_p-approximation programs.*

STATISTICS

Chalfant, James Allen, *Choosing among flexible functional forms: An application of the generalized Box-Cox and Fourier flexibile forms to U. S. agriculture.*

El Badawi, Ibrahim, *Semi-nonparametric analysis of consumer demand systems.*

Elssamadisy, Elssayed Mousa, *An extended life cycle model of investments, work and consumption.*

Fountis, Nicolaos George, *Test for a unit root in autoregressive multivariate time series.*

Hester, Robert Allen, Jr., *Uniform residuals and NU residuals tests for heteroscedasticity.*

Tamura, Roy Noriki, *Minimum Hellinger distance estimators for multivariate location and covariance.*

University of North Carolina, Chapel Hill
(17;3,11,0,1,1,0,1)

BIOSTATISTICS

Andrade, Dalton, *ML estimation and LR tests for the multivariate normal distribution with patterned mean and covariance matrix. Complete and incomplete data cases.*

Boyle, Kerrie Eileen, *Survival model for fertility evaluation.*

Bryant, Edward Carroll, *Area-under-the-curve analysis and other analysis strategies for repeated measures clinical trials.*

Hawkins, Doyle L., *Sequential detection procedures for autoregressive processes.*

Johnson, Robert Earl, *A comparison of error probabilities for two standard analyses of variance in unbalanced two-way designs.*

Stanek, Edward J., III, *The relationship between weighted least squares categorical data analysis, seemingly unrelated regression and growth curve analysis.*

Whaley, Fredrick Seymour, *Some properties of the two-sample multidimensional runs statistic.*

MATHEMATICS

Goolsby, Ronnie, *Duality for polynomially complete subspaces for Bergman spaces.*

Halchin, Judy Diane, *Analytic properties of random power series.*

Hemakul, Wanida, *A Neuman problem associated with the ordinary differential equation of second order.*

Martin, Mary Barone, *Invertible ideals in a polynomial ring.*

Sullivan, Frances Patrick, *Entropy and dimension for conformal real and complex dynamical systems.*

OPERATIONS RESEARCH AND SYSTEMS ANALYSIS

Mitchell, John Christopher, *Multi-item (s,S) inventory systems with a service objective.*

STATISTICS

Giltinan, David Michael, *Bounded influence estimation in heteroscedastic linear models.*

Kim, Byung Soo, *Studies in multinomial mixture models.*

Smith, Robert Alan, *Asymptotic behavior of degenerate U-statistics.*

Stefanski, Leonard A., *Influence and measurement error in logistic regression.*

OHIO

Case Western Reserve University
(6;0,0,0,5,0,0,1)

BIOMETRY

Keltner, Lew, *A software system for display of family relationships and information in pedigree form.*

OPERATIONS RESEARCH

Chen, Wen-Kuei, *A mean-lower partial moment analysis of hedge portfolios.*

Madey, Gregory Richard, *A corporate R&D strategic planning and budgeting model.*

Nishimura, Koichi, *Applications of integer programming to radio frequency management.*

Thadathil, Jacob Mani, *Optimization methods in hierarchical holographic modeling.*

Venkateswaran, V., *A new approach for determining when the linear complementarity problem has no solution.*

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

MATHEMATICAL SCIENCES

Eid, Ghazi Mahmoud, *Classical quotient rings with perfect topologies.*

Norfolk, Timothy Shane, *On the zeros and poles of Pade approximants to certain hypergeometric functions.*

Wei, Yu Chuen, *L-L integral transforms.*

Ohio State University
(12;5,3,0,0,1,0,3)

MATHEMATICS

Bagchi, Sitadri Nath, *On A.E. convergence of classes of multivalued asymptotic martingales.*

Chidume, Charles Ejike, *Iteractive methods and nonlinear functional equations.*

Grove, John Whitaker, *A priori estimates in non-isentropic gas dynamics.*

Hung, David Cheung-Yan, *Theta series of quadratic forms over* $\mathbf{Z}$ *and* $\mathbf{Z}[(1+\sqrt{p})/2]$.

Sheen, Rong-Chyu, *Orthogonal polynomials associated with* $\exp(x^6/6)$.

Thirunavukkarasu, K., *Quotient sets, homomorphic images and multipliers.*

Wajima, Masayuki, *Non-associative algebras and their automorphism groups.*

STATISTICS

Chauhan, Chand K., *Orthogonal factorial structure in an incomplete block design.*

Shukla, Rakesh, *The statistical analysis of DNA/RNA base sequence symmetries and the role of biological marker in leukemia through multistate survival analysis.*

Voss, Daniel Thomas, *Confounding in single replicate factorial designs.*

Wang, Chinying Jean, *Simulation study of grouped effect of Cox's regression with application to liver cancer.*

Willavize, Susan Anne, *Nonparametric discrimination: A comparative study of several methods for the univariate two-sample case.*

Ohio University
(1;1,0,0,0,0,0,0)

MATHEMATICS

Grabner, Elise Marlene, *Pre-images of certain generalized metric spaces.*

University of Cincinnati
(7;2,1,1,1,0,0,2)

EPIDEMIOLOGY AND BIOSTATISTICS

Ruberg, Stephen John, *An adaptive two-sample for shifts in location using truncated ranks.*

MATHEMATICAL SCIENCES

Bendjilali, Boualem, *Stability of an economic system using ordinary and retarded functional differential equations.*

Benedict, Jeffrey P., *A unification of several multivariate statistical procedures with new applications.*

Guacaneme, Julio Enrique, *Aspects of the theory of Tikhonov's method for the numerical solution of integral equations.*

Ortega, Louis A., *A Sturmian theorem for parabolic operator with periodic coefficients and applications.*

QUANTITATIVE ANALYSIS

Godlewski, Fabienna, *Analysis of coordination mechanisms in decentralized, hierarchical decision making processes.*

Leigh, William Ernest, Jr., *Interpretation of natural language database queries using optimizating methods.*

OKLAHOMA

Oklahoma State University
(6;1,4,0,0,1,0,0)

MATHEMATICS

El-Gebeily, Mohamed, *Isometries and epsilon-near isometries of analytic function spaces.*

Hoecker, Niel Edward, *A modified finite difference method to solve elliptic partial differential equations with reentrant corners.*

STATISTICS

Cook, Peyton, *A Bayesian analysis of auto-regressive processes: Time and frequency domain.*

Hamdy, Hosny, *Sequential estimation of the parameters of negative exponetial and rectangular distributions.*

Moen, David, *The Bayesian analysis of structural change in multivariate linear models.*

Sung, Chung-Hsien, *The estimation of stability parameters.*

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

MATHEMATICS

Harmon, Dennis Ray, *NK_1 of non-abelian groups.*

OREGON

Oregon State University
(2;0,2,0,0,0,0,0)

STATISTICS

Hanlen, Richard C., *An atomic approach to assessing the outlier properties of probability models.*

McClellan, Paul James, *Maximum-efficient admissible linear unbiased estimation in mixed linear models.*

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

MATHEMATICS

Johnson, Diane Louise, *Fixed point evaluation in Gaussian quadrature and generalized monosplines of minimal norm.*

Owens, Margaret Ann, *Continua which are unicoherent at a subcontinuum.*

Rowell, James W., *Unilateral Fredholm theory in Banach algebras.*

PENNSYLVANIA

Carnegie-Mellon University
(12;1,5,0,0,3,0,3)

MATHEMATICS

Chen, Tsu-fen, *On finite element approximations to compressible flow problems.*

Cox, Christopher Lee, *Weighted least squares finite element methods for domains with corners.*

Deisher, Caroline I., *A survey of the applications of Pólya's enumeration theorem.*

Miller, Dale, *Proofs in higher-order logic.*

Spear, Kathleen Ann, *Some results in continuum mechanics.*

Suri, Manil, *Mixed variational principles for time dependent problems.*

Thomas, John Powers, Jr., *A qualitative analysis of an elastic-plastic oscillator with conservative loading.*

STATISTICS

Bellow, Michael Elliot, *Performance of self-organizing sequential search heuristics under stochastic reference models.*

May, Sherryl, *Log-linear modelling techniques applied to some epidemiologic and psychiatric data.*

Saphire, Diane G., *Estimation of victimization prevalence using data from the national crime survey.*

Stasny, Elizabeth Ann, *Estimating gross flows in labor force participation using data from the Canadian labour force survey.*

Wu, Da-Ching, *An analysis of first nuptial confinements in Australia.*

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

MATHEMATICS

Frantz, Deborah A., *Summability methods, probability distributions, and associated positive linear operators.*

Friedland, Lewis, *A certain class of almost Hermitian manifolds.*

Pennsylvania State University
(5;5,0,0,0,0,0,0)

MATHEMATICS

Abu-Sbeih, Moh'd Zuheir Ibrahim, *Wrapped coverings and genus embeddings of graphs.*

Bator, Elizabeth Mary, *Duals of separable Banach spaces.*

Matet, Jean Pierre, *Filters of partitions and generalized descriptive set theory.*

Presler, Dwayne Lyle, *On the solution of a minimax dual.*

Reiter, Clifford Arno, *Large fundamental units and the monomial norm equation.*

Temple University
(5;2,3,0,0,0,0,0)

MATHEMATICS

Cavaliere, Richard, *Automorphic integrals and their period functions.*

Horwitz, Alan, *Optimal recovery and restricted interpolation of certain classes of functions.*

STATISTICS

Boik, Robert J., *Multiplicative models for interaction in unbalanced two-way ANOVA.*

Dinh, Khoan Tan, *A new multivariate distribution related to the minimum variance unbiased estimator of the multivariate normal with applications.*

Moore, Annette L., *Extensions of multivariate missing plot techniques to bivariate design settings.*

University of Pennsylvania
(4;2,2,0,0,0,0,0)

MATHEMATICS

Brittain, Donald Lee, *A diameter pinching theorem for positive Ricci curvature.*

Petro, John, *Great sphere fibrations of manifolds.*

STATISTICS

Dunn, Dennis, *Estimation of parameters in discrete time hazards models.*

Haroun, Ahmed, *On the asymptotic efficiency of the moment estimates of the covariances of a stationary moving average process.*

University of Pittsburgh
(7;1,5,0,0,1,0,0)

BIOSTATISTICS

Arbutiski, Thomas, *A family of multiplicative survival models incorporating cure as a function of covariates.*

Seth, Anand K., *Some statistical considerations in the analysis of incomplete data on weight of cleft palate children.*

MATHEMATICS AND STATISTICS

Nayak, Tapan K., *Applications of entropy functions in measurement and analysis of diversity.*

Peddada, Shyamal Das, *Some contributions to the theory of non-negative estimation of variance components, with applications components.*

Sarkar, Shakuntala, *Correlated regression equations and inference from nonnormal populations.*

Sledge, Frank R., *A finite element implementation of the dual variable method for the Navier-Stokes equations.*

Zomorrodian, Reza, *Homomorphisms of Fuchsian groups and nilpotent automorphism groups of Riemann surfaces.*

RHODE ISLAND

Brown University
(4;4,0,0,0,0,0,0)

MATHEMATICS

Blomstrom, Carol Ann, *Extrinsically symmetric and planar geodesic isometric immersions in Pseudo-Riemannian space forms.*

Dorman, David Richard, *Prime factorization of singular moduli.*

Ryan, Kevin M., *Schubert varieties in the flag manifold of* $\mathrm{SC}(n, C)$.

Spyropoulos, Konstantine, *Certain diophantine equations of degree three and four.*

SOUTH CAROLINA

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

MATHEMATICAL SCIENCES

Black, Stephen Bennett, *Coordination of control for large-scale systems.*

Frawley, Michael David, *Discrete models for nonwoven fabrics.*

Pfaff, John Stuart, *Algorithmic complexities of domination-related graph parameters.*

Stevenson, Dennis Elliott, *A framework for the development of simulation systems.*

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

MATHEMATICS AND STATISTICS

Patterson, Ronald F., *Strong convergence theorems for exchangeable arrays of random variables and random elements in banach spaces.*

TENNESSEE

University of Tennessee
(6;2,0,0,0,4,0,0)

MATHEMATICS

Allen, Edward J., *A Galerkin method for numerically solving the energy-dependent neutron transport equation.*

Bestvina, Mladen, *Characterizing K-dimensional universal Menger compacta.*

Bowers, Philip Lee, *Applications of general position properties of dendrites to Hilbert space topology.*

de Luna, Jose T., *Analysis of mathematical models of resource-consumer-toxicant interactions.*

Goyal, Sulbha, *A class of Rosenbrock-type schemes for second-order nonlinear systems of ordinary differential equations.*

Guirguis, George H., *On the existence, uniqueness, regularity and approximation of the exterior Stokes problem in R^3.*

TEXAS

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

MATHEMATICS

Huang, Kuodo James, *Algebraic numbers and topologically equivalent measures.*

Walsh, John Breslin, *Iterative solution of linear boundary value problems.*

Williams, Stanley Carl, *Universally measurable sets and nonisomorphic subalgebras.*

Rice University
(5;1,1,1,0,2,0,0)

MATHEMATICAL SCIENCES

Boswell, Steven Blake, *Nonparametric mode estimation for higher dimensional densities.*

Fontecilla, Rodrigo, *A general convergence theory for quasi-Newton methods for constrained optimization.*

Scheidler, Michael Joseph, *Acceleration waves.*

Zadeck, Frank Kenneth, *Incremental data flow analysis in a structured program editor.*

MATHEMATICS

Wilkinson, Steven V., *Characterizing Gauss maps.*

Southern Methodist University
(4;0,2,0,2,0,0,0)

OPERATIONS RESEARCH

Farhangian, Keyvan, *Networks with side constraints: An LU factorization update for the working basis inverse.*

Patty, Bruce Willard, *The suppressed basis algorithm for linear programs with special structure.*

STATISTICS

Eslinger, Paul W., *Minimum Hellinger distance estimation.*

Lee, Young-Ha, *A modified bootstrap method for distribution free confidence intervals.*

Texas A & M University
(1;0,1,0,0,0,0,0)

STATISTICS

Spector, Philip Charles, *Analysis of variance with autocorrelated errors.*

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

MATHEMATICS

Nall, Van Clyne, *Weak confluence and W-sets.*

Roberson, Pamela D., *An uncountable collection of Case-Chamberlain type continua with no model.*

Sparra, James, *Stochasitc approximation of fixed points.*

University of Texas, Arlington
(5;2,1,0,0,0,0,2)

MATHEMATICS

Chiou, Chwei-Jeng (Paul), *On the choice of a prior distribution for binomial sampling: An information theoretic approach.*

Mahaney, Lou Ann, *On primary factorization and generating sets for ideals in commutative rings.*

McCasland, Roy Lynn, *Some commutative ring results generalized to unitary modules.*

Moore, Jane Karen Camp, *Two generalized concepts of ordinary differentail equations: M_0-stability and mixed monotone operators.*

Pandit, Sudhakar G., *The method of upper, lower solutions for hyperbolic partial differential equations.*

University of Texas, Austin
(3;1,1,0,0,1,0,0)

MATHEMATICS

Kuga, Ken'ichi, *On immersed 2-spheres in some 4-manifolds.*

Seager, Mark Kennedy, *Adaptive finite element grid generation and extension for elliptic problems posed on unbounded domains.*

Wuu, Julie, *Efficient incomplete block designs.*

UTAH

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

MATHEMATICS

Luminet, Denis Laurent, *A functional calculus for Banach algebras with polynomial identities.*

VIRGINIA

University of Virginia
(4;2,0,2,0,0,0,0)

APPLIED MATHEMATICS AND COMPUTER SCIENCE

Carson, Scott David, *Geometric models of concurrent programs.*

Charlton, Spottswood Coleman, *Lookahead paging algorithms.*

MATHEMATICS

Kennedy, Thomas Garrett, *A rigorous study of the mean field approximation of Debye and Huckel for Coulomb systems.*

Young, Virginia Ruth, *Branched coverings arising from group actions.*

Virginia Commonwealth University
(3;0,3,0,0,0,0,0)

BIOSTATISTICS

Best, Alvin M., III, *A Monte Carlo evaluation of a method to determine confidence region about the stationary point and the response of the stationary point in a response surface model.*

Goodlow, Janis Lee, *Use of confidence regions for testing hypotheses concerning activity and therapeutic synergism in chemotherapy experiments.*

Schwab, Barry S., *Parametric and nonparametric analysis of the multiple design mulitvariate linear model.*

Virginia Polytechnic Institute and State University
(18;1,3,0,6,1,0,7)

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Beaton, Robert John, *Image quality and human performance: An evaluation of quantitative predictors for soft-copy and hard-copy displays of digital images.*

Cavalier, Tom Michael, *Static and sequential location-allocation problems on networks and areas with probabilistic demands.*

Chansaenwilai, Petcharat, *Monotone bounds on the productivity of fixed-cycle production lines.*

Chao, Betty Pao-Ti, *Human performance evaluations of selected image enhancement/restoration techniques.*

Co, Henry C., *Design and implementation of flexible manufacturing systems: Some analysis concepts.*

Cordes, Richard Edward, *Use of magnitude estimation for the evaluation of software ease-of-use using direct and indirect comparison approaches.*

Jones, Marilyn Smith, *A computerized robot selection system.*

Kiessler, Peter Charles, *Flows in queueing networks.*

Leung, Larry C., *A time-dynamic production function approach to equipment replacement decisions and economic equipment replacement models for flexible manufacturing systems.*

Rajan, Roby, *A game theoretic analysis of cooperative phenomena in oligopolistic markets.*

Revesman, Mark Elliot, *Validation and application of a model of human decision making for human/computer communication.*

MATHEMATICS

Fernandez, Roberto, *Study of ferromagnetic systems with many phase transitions.*

Khouzam, Fouad, *Stiffly stable Adams-type methods.*

Landman, Bruce Michael, *Generalized van der Waerden numbers.*

Miekisz, Jacek, *Gibbs states in ferromagnetic, abelian systems.*

STATISTICS

Banks, David Lane, *A nonparametric Bayesian test.*

Grubbs, William Douglas, *Collinearity in simultaneous systems.*

Hussey, James Robert, *Effects of correlation induction schemes on variance criteria and experimentally designed computer simulation.*

WASHINGTON

University of Washington
(11;3,0,0,2,5,0,1)

APPLIED MATHEMATICS

Easthope, Paul Fripp, *An alternative approach to boundary layer disturbances.*

Li, Hon Keung, *Part* I. *Resonant interactions for nearly periodic weakly nonlinear dispersive waves. Part* II. *Resonant modal interactions and adiabatic invariance for a nonlinear wave equation in a variable domain.*

Mansfield, Edward Joseph, *Modeling and control of membrane transport processes: Applications to lung fluid balance.*

Murray, John Michael, *On the proper extension of optimal control problems to admit impulses.*

MATHEMATICS

Bell, Allen Davis, *Localization and ideal theory in Noetherian crossed products and differential operator rings.*

Bell, Bradley Martin, *Nonsmooth optimization by successive quadratic programming.*

Chakravarti, Rajiva Srinivas, *The basic element theorem for fully bounded rings.*

Saerens, Rita, *Interpolation manifolds.*

Sallee, John Francis, *Some triangulations of cubes.*

Treiman, Jay S., *A new characterization of Clarke's tangent cone and its applications to subgradient analysis and optimization.*

Vakil, Nader, *Infinitesimal spaces: A topological characterization of Wattenberg infinitesimals.*

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

MATHEMATICS

Boerner, Victoria Lee, *A new class of semifields.*

Chang, Li-Ly, *Basic scales.*

Pérez-Esteva, Salvador, *Convolution operators for the one-sided Laplace transformation.*

WISCONSIN

University of Wisconsin, Madison
(14;14,0,0,0,0,0,0)

MATHEMATICS

Adams, Colin Conrad, *Hyperbolic structures on link complements.*

Byun, Hyeja, *Endomorphism rings and elementary division theory for modules over Dedekind-like rings.*

Calcaterra, Robert Anthony, *Galois correspondences in group actions.*

Carroll, Jeffrey Steven, *Recursively enumerable equivalence relations.*

Enayat, Ali, *Topics in the model theory of set theory.*

Fajardo, Sergio, *Contributions to the model thoery of probability logics.*

Falk, Michael J., *Geometry and topology of hyperplane arrangements.*

Fernando, Suren Lala, *Simple weight modules of complex reductive Lie algebras.*

Franzosa, Robert David, *Index filtrations and connection matrices for partially ordered Morse decompositions.*

Goldwasser, John L., *Some contributions to the theory of permanents.*

Jia, Rong-qing, *Spline interpolation and some related topics.*

Kass, Steven Neil, *A recursive formula for characters of simple Lie algebras.*

Ross, David A., *Measurable transformations in saturated models of analysis.*

Shao, Jia-yu, *On the properties of nonnegative primitive matrices,irreducible matrices and their associated directed graphs.*

WYOMING

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

MATHEMATICS

Waters, Charles William, *Some fixed point theorems for radial contractions, nonexpansive, and set valued maps.*

STATISTICS

Andrew, Michael Elliot, *Hypothesis tests involving ocean wave properties.*

CANADA

Carleton University
(3;3,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Chaudhry, Muhammad Aslam, *Distributional Hilbert transform and boundary value problems.*

Estrada Navas, Luis, *On selfinjective algebras of finite representation type.*

Shah, Mihr Jahanian, *Certain infinite sums involving ultraspherical polynomials and ultraspherical functions of the second kind.*

McGill University
(6;4,1,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Jay, C. Barry, *Generalizing the structure-semantics adjuntion: Operational categories.*

Kenny, Patrick Joseph, *Ergodic measures for a class of horocycle flows.*

Power, John Anthony, *Butler's theorem and adjoint squares.*

Provost, Serge, *Distribution problems connected with the multivariate linear functional relationship models.*

Sangines, Luis Manuel, *On quadratic planes.*

Selby, Alan M., *Determinacy and unfoldings for non-smooth maps.*

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

MATHEMATICAL SCIENCES

Cho, Chung Je, *Combinatorial designs with prescribed automorphism types.*

Poole, David Gordon, *Prime ideals and localization in Noetherian Ore extensions.*

Queen's University
(2;1,0,1,0,0,0,0)

MATHEMATICS AND STATISTICS

Dilcher, Karl H., *Zeros of Bernoulli polynomials.*

Meijer, Hendrikus, *Cryptology: Computational complexity and applications.*

Université de Montréal
(4;1,2,0,0,1,0,0)

MATHÉMATIQUES ET STATISTIQUE

Baghagha, Layachi, *Estimation par le maximum de vraisemblance dans les modèles des réponses aléatoires.*

Boivin, Andre, *Approximation uniforme harmonique et tangentielle holomorphe ou méromorphe sur les surfaces de Riemann.*

Hudon, Georges, *Tests concernant la moyenne d'une population normale multivariée.*

Karrakchou, Jamila, *Analyse et commande des systèmes différentiels fonctionnels de type héréditaire.*

Université Laval
(2;1,0,0,0,1,0,0)

MATHÉMATIQUES

Fortin, Andre, *Methodes d'éléments finis pour les équations de Navier-Stokes.*

Zraibi, Abdelwahab, *Sur les fonctions analytiques multiformes.*

University of British Columbia
(5;4,0,0,0,1,0,0)

MATHEMATICS

Foreman, Michael, *Dispersion analyses of finite element solutions of the shallow water equations.*

Holzmann, Wolfgang, *Involutions with 1 or 2-dimension fixed point sets on orientable torus-bundles over a 1-sphere and on unions of orientable twisted 1-bundle over a Klein bottle.*

Sertoz, Sinan, *Singular holomorphic foliations.*

Sharpe, Bruce, *The Faddeer-Popov techniques in gauge field theories.*

Slade, Gordon Douglas, *An asymptotic loop expansion for the effective potential in the $P(\phi)_2$ quantum field theory.*

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

MATHEMATICS AND STATISTICS

Offin, Daniel C., *An index theory for periodic orbits in Hamiltonian systems.*

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

STATISTICS

Weiss, Günter Max Theodor, *A large deviation study of consistent estimation of a translation invariant location parameter.*

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

STATISTICS

Bartlett, Sheryl Anne, *Posterior and predictive distributions for the normal multivariate linear model with monotone blocks of data which are missing at random.*

Berkowitz, Jonathan, *On assessing the chi-squared approximation to log likelihood ratio tests.*

Hui, Tak-Kee, *On tests of multivariate normality.*

Katapa, Rosalia Sam, *Statistical analysis of familial data.*

Stukel, Therese, *Generalized logistic models.*

University of Waterloo
(11;4,2,0,3,2,0,0)

APPLIED MATHEMATICS

Goode, Stephen W., *Spatially inhomogeneous cosmologies and their relation with the Friedmann-Robertson-Walker models.*

Vrscay, Edward Robert, *Continued fractions, algebraic and quantum mechanical large order perturbation theory.*

COMBINATORICS AND OPTIMIZATION

Caron, Richard John, *A parameterized Hessian quadratic programming problem.*

Cook, William John, *On some aspects of totally dual integral systems.*

Feofiloff, Paulo, *Disjoint transversals of directed coboundaries.*

Koop, Gerald Jacob, *Optimal multiple shift manpower scheduling models and algorithms.*

O'Neill, Philip Francis, *Piecewise continuous optimization.*

Richter, Robert Bruce, *The topology of embedded graphs.*

PURE MATHEMATICS

Simons, Gordon Edward, *Varieties of rings, groups and lattices with definable principle congruences.*

STATISTICS AND ACTUARIAL SCIENCE

Bartlett, Roy F., *On estimation with kriging for finite populations under super-population models.*

DiCiccio, Thomas Jules, *Higher order comparisons of asymptotic methods for conditional and unconditional interval estimation.*

University of Western Ontario
(3;1,0,0,0,2,0,0)

APPLIED MATHEMATICS

Beaudoin, Yves, *The iterative solution of a nonlinear equation using the integral-equation formulations of an imbedding.*

Salhani, Douglas Stephen, *Numerical solutions to porous flow problems.*

MATHEMATICS

Thomas, George Rubin, *Reflectivity: A generalization of commutativity, cancellation and separativity in semigroups.*

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

MATHEMATICS

Masaro, Joseph C., *A-optimal weighting designs.*

Doctoral Degrees Conferred 1982-1983

Supplementary List

The following entry supplements the list of thesis titles published in the November 1983 *Notices*, pages 734–747, and in the April 1984 *Notices*, pages 331-332.

MINNESOTA

University of Minnesota, Minneapolis
(1;0,1,0,0,0,0,0)

STATISTICS

Christensen, Ronald R., *Searching for the lowest price using Dirichlet processes to model the unknown price distribution.*

Doctoral Degrees Conferred 1983-1984

Supplementary List

The following entries supplement the list of thesis titles published in the November 1984 *Notices*, pages 757–770, and in the March 1985 *Notices*, page 184.

FLORIDA

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

STATISTICS

Popovich, Edward, *Nonparametric analysis of bivariate censored data.*

OREGON

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

MATHEMATICS

Alzamel, Ali, *Best multipoint local *LP-approximation.*