Doctoral Degrees Conferred 1986 – 1987

THE ANNUAL AMS list of doctoral degrees in the mathematical sciences and related subjects reports 845 degrees conferred between July 1, 1986, and June 30, 1987 by 217 departments in 150 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
(4;4,0,0,0,0,0,0)

ALGEBRA, COMBINATORICS AND ANALYSIS

Fu, Chin-Mei, *The intersection problem for pentagon systems.*

Ghusayni, Badih Najib, *Entire functions and Fourier transforms.*

Robinson, Philip Wiley, *On embedding partial Steiner pentagon systems.*

Stubbs, Sidney Johnston, IV, *Embedding partial triple systems.*

University of Alabama, Tuscaloosa
(3;3,0,0,0,0,0,0)

MATHEMATICS

Jo, Young Soo, *Isometries of tri-diagonal algebras.*

Kim, Wan Se, *Boundary value problems for non-linear telegraph equations in one space dimension.*

Rhee, Min Surp, *Some properties and applications of P-graphs and families to posets.*

ARIZONA

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

APPLIED MATHEMATICS

Iverson, Arthur Evan, *The mathematical modeling of time-dependent photoconductive phenomena in semiconductors.*

CALIFORNIA

California Institute of Technology
(7;1,0,1,0,4,0,1)

APPLIED MATHEMATICS

Brewster, Mary Elizabeth, *Asymptotic analysis of thin plates under normal load and horizontal edge thrust.*

Kamm, James Russell, *Shape and stability of two-dimensional uniform vorticity regions.*

Landman, Michael Jeremy, *New solutions of an amplitude equation describing transition in a laminar shear flow.*

Zufiria, Juan Antonio, *Part I: Symmetry breaking of water waves; Part II: On the superharmonic instability of surface water waves.*

MATHEMATICS

Holden, Peter James, *Extension theorems for function of vanishing mean oscillation.*

Lutz, Jack H., *Resource-bounded category and measure in exponential complexity classes.*

Odencrantz, Kristiana, *Effects of a magnetic field on the trace of the heat kernel for Schrödinger operator with a potential well.*

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

MATHEMATICS

Pinter, Claudia Louise, *The average error from the approximation of functions and integrals.*

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

OPERATIONS RESEARCH

Al-Zayani, Abdul-Latif Rashid, *Formulation and analysis of some combat-logistics problems.*

Stanford University
(16;4,2,0,0,1,0,9)

ENGINEERING-ECONOMIC SYSTEMS

Al-Dharrab, Ibrahim AA, *Economic analysis of interest-free economies.*

Batey, Gregory Linn, *The trigger rule as a strategy against adverse selection.*

Breese, John Sydney, *Knowledge representation and inference in intelligent decision systems.*

Cariño, David Runge, *Multiperiod security markets with diversely informed agents.*

Eschbach, Joseph Edward, *The optimal decontrol of a price controlled intermediate good market.*

Feinberg, Brion Noah, *Structural decomposition of Markovian systems.*

He, Shu-Dong, *Renewable resource utilization of allocation: Model, algorithm and computer implementation.*

Navarro, Emilio, *Decision analysis with uncertain future opportunities.*

Olsen, Trond Egil, *Strategic development of a backstop technology.*

Syed, Jaffer Raza, *A hybrid approach to competitive analysis of an industry with application to polyolefins industry.*

Yu, Abraham Sin-Oih, *A decision analytic approach to clinical decision assessment.*

MATHEMATICS

Chen, Chang-Pao, *Z_n subspaces of a commutative Banach algebra.*

Lodder, Gerald Matthew, *Dihedral homology and the free loop space.*

Troubetzkoy, Serge Eugene, *Extreme instability of the horocycle flow.*

STATISTICS

Knowles, Mark Donald, *Simultaneous confidence bands for random functions.*

Owen, Art Bradley, *Nonparametric conditional estimation.*

University of California, Berkeley
(43;27,5,0,0,5,0,6)

BIOSTATISTICS

Conforti, Paul, *A survival model and the time to tumor.*

Miyaoka, Etsuo, *Estimation in mixed Poisson process models.*

Neuhaus, John M., *Logistic regression models for clustered data and retrospective sampling.*

Schulman, Jane, *The statistical analysis of density equalized map projections.*

MATHEMATICS

Baker, Richard Lance, *Triangular UHF algebras.*

Bronstein, Manuel, *Integration of elementary functions.*

Buttke, Thomas Frederick, *A numerical study of superfluid turbulence in the self-induction approximation.*

Chisala, Busiso Pascal, *Canonical coordinates for hyperelliptic curves in characteristic p.*

Choe, Geon Ho, *Spectral properties of cocycles.*

Choe, Jaiyoung, *On the existence and regularity of fundamental domains with least boundary area.*

Courant, Theodore James, *Dirac manifolds.*

Doong, Shing-Hwang, *Fredholm theory of differential operators on noncompact manifolds.*

Friedman, Joel, *On Newton's method.*

Hasegawa, Keizo, *Two classes of non-Kähler complex manifolds.*

Holtz, Marc Stephen, *The topological classification of two dimensional cooperative and competitive systems.*

Jaffe, David Benjamin, *Curves on cones.*

Laskowski, Michael Chris, *Uncountable theories categorical in a higher power.*

Lewis, Debra Kim, *Rotating liquid drops: Hamiltonian structure, stability and bifurcation.*

Long, Ding-Gwo, *Convergence of the random vortex method in one and two dimensions.*

Norton, Alec, *The fractal geometry of critical sets with nonnull image and the differentiability of functions.*

O'Cairbre, Aongus Tomas, *On unitary equivalence of von Neumann algebras generated by Weyl operators on Fock space.*

Oslon, Steven Gerald, *Partial Gaussian elimination for iterative solutions of sparse linear systems.*

Palais, Robert Andrew, *Blowup for a nonlinear evolution equation and self reproducing strained shear layers.*

Phelps, Andrew Russell, *A simplification of nonlinear observer theory.*

Propp, James Gary, *Coding from the past.*

Puckett, Elbridge Gerry, *A study of two random particle methods and their rates of convergence.*

Smale, Nathan, *A bridge principle for minimal and constant mean curvature submanifolds of Euclidean space.*

Smith, Alexander John, *Symplectic Kähler manifolds.*

Tanaka, Kazuyuki, *Descriptive set theory and subsystems of analysis.*

Tang, Ping Tak Peter, *Chebyshev approximation on the complex plane.*

Vila-Freyer, Ricardo Francisco, *On automorphisms of compact complex surfaces.*

Vourtsanis, Yiannis, *Contributions to the theory of structures: On products of structures and other related topics.*

Whitaker, Nathaniel, *Numerical solution of the Hele-Shaw equations.*

Zafrany, Samy, *Complexity of Borel ideals, iterated Fréchet quantifiers, and related sets of countable models.*

STATISTICS

Adhikari, Anindita, *Skip free processes.*

Faraway, Julian James, *Smoothing in adaptive estimation.*

Hestir, Kevin Filer, *The Aldous representatin theorem and weakly exchangeable non-negative definite arrays.*

Hubert, Steven L., *Sequential estimation of functions of p for Bernoulli trials.*

LeRoy, Susan Elizabeth, *Robust estimation of the mean of a retransformed variable.*

Mountford, Thomas Simon, *Aspects of Brownian motion.*

Park, Byeong UK, *Efficient estimation in the two-sample semiparametric location scale.*

Quek, Ser Aik, *The mixed effect model: fitting, and validation.*

Vallarino, Carlos Ramon, *Estimation of the mean value function from a sample of nonhomogeneous Poisson processes.*

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

STATISTICS

Pruitt, Ronald C., *Estimation of regression and autoregression parameters in linear models with heavy-tailed residuals.*

Reneau, Dana M., *Estimation of survival distributions which are new better than used with respect to a distinguished set.*

University of California, Los Angeles
(19;9,7,0,0,3,0,0)

BIOSTATISTICS

Elattar, Inas, *Modeling the mechanisms relating coronary heart disease to its potential risk factors.*

Gornbein, Jeffrey Alan, *Precision and estimation in receptor binding models.*

Han, Moon-Chul, *Tests for interaction in two factor survival analysis.*

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

Wong, Florence, *Tests of carcinogenicity based on the two-stage model of Armtage and Doll and the incorporation of historical control information in tests of trends.*

Wu, Mei-Miau, *Variance of raking estimate for contingency.*

MATHEMATICS

Chung, Wen-tien, *Non-compact Kaehler manifolds of asymptotic constant curvatures.*

Clayton, Richard Fitzpatrick, *Multiple packings and coverings in algebraic coding theory.*

Fagarasan, John Theodor, *Hidden pools, complex and repeated eigenvalues in multicompartmental analysis.*

Gimpel, David Raphael, *Axiomatizing the class of subdirect powers of a finite algebra.*

Hamilton, Phillip Mason, *Dimension of harmonic measure for generalized Cantor sets.*

Hou, Thomas Yizhao, *Convergence of particle methods for Euler and Boltzmann equations with oscillatory solutions.*

McColm, Gregory Loren, *Simple and simultaneous recursive fixed points.*

Papadimitrakis, Michael, *On best uniform approximation of continuous functions by bounded analytic functions.*

Ruan, Zhong-jin, *On matricially normed spaces associated with operator algebras.*

Shu, Chi-wang, *Numerical solutions of conservation laws.*

Towers, John David, *High resolution algorithms for conservation laws.*

Tysk, Johan, *Index and total curvature for minimal hypersurfaces in Euclidean and hyperbolic space.*

Yau, Chi-Ming, *Codimension two Euclidean submanifolds and remarks on affine differential geometry.*

University of California, Riverside
(7;2,4,0,1,0,0,0)

MATHEMATICS

Chavez, Joseph Dean, *A natural notion of morphism for linear programming problems.*

Fay, John Crawford, *Second and high order quasi-linear ellipticity on the n-torus.*

Seejeeni, Fowzi, *Best approximation in $C(T)$ modules.*

STATISTICS

Ahmed, Nabil Ali, *Goodness-of-fit tests for testing multivariate families of distributions.*

Charnet, Eugenia Maria Reginato, *On some statistical problems in questionnaire design and analysis.*

Charnet, Reinaldo, *Modeling and designs for mixture experiments involving paired comparisons.*

Zhang, Xiao-Di, *Search designs with applications to off-line quality control.*

University of California, San Diego
(9;7,1,0,0,0,0,1)

MATHEMATICS

Butler, Jeffrey Hurst, *Hyperplane sections of regular star polytopes.*

Djamboulian, Ara, *A study of finite dimensional nilpotent algebras.*

Healy, Dennis M., Jr., *A relationship between harmonic analysis on $SL(2,\mathbb{C})$ and $SU(2)$.*

Jeffries, John, *Boundary layer and shock layer solutions to singularly perturbed boundary value problems.*

Kim, Peter Taiwung, *Recentered confidence sets for the mean of a multivariate normal distribution when the scale parameter is unknown.*

Kirschvink, Stephen John, *Differential inequalities and singularly perturbed boundary value problems.*

McCullough, Scott Allen, *3-isometries.*

McLarnan, Timothy John, *Tableau recursions and symmetric Schensted correspondences for ordinary, shifted and oscillating tableaux.*

Yeung, Kit Ming, *Application of p-adic gamma function to congruences of binomial coefficients.*

University of California, Santa Barbara
(5;3,2,0,0,0,0,0)

MATHEMATICS

Bellenger, Joseph Campbell, *Zeros of strict multifunctions on paracompact convex spaces.*

Li, Ming-Sun, *Subrings of matrix rings.*

Yuan, Chuan Kuan, *Inner [illegible] means on locally compact groups.*

STATISTICS AND APPLIED PROBABILITY

Lin, Jer-Yan, *Multinomial subset selection with composite inverse sampling procedure.*

Wells, Martin Timothy, *Problems in the theory of spacings.*

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

MATHEMATICS

Eastman, Mark R., *Symmetric groups as collineation groups on finite translation planes.*

Love, Thomas R., *The geometry of elementary particles.*

Mitchell, Richard R., *Variational methods in semilinear operator equations.*

COLORADO

Colorado State University
(7;1,6,0,0,0,0,0)

STATISTICS

Badahdah, Saleh O., *Adaptive robust estimation of location when stable distributions are included.*

Gupta, Sat Narain, *Parameter estimation in fractionally differenced ARMA processes.*

Li, Hsin-Gee, *MRPP in multivariate one-way fixed model and tolerance regions for the balanced random models.*

Marengo, James Edward, *Limit theory for a class of multivariate moving averages and related topics.*

Mulrow, Edward J., *The convex hull of a random sample in* $\mathbf{R}^2$.

Srinivasan, Syamala, *Confidence intervals of functions of variance components in unbalanced two-way design models.*

Victoria, Jose Sevilla, *Power comparison of two MRPP statistics using two approximation methods.*

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

MATHEMATICS

Kawski, Matthias, *Nilpotent Lie algebras of vector fields and local controllability of nonlinear systems.*

Lerner, Boris, *Harmonic analysis on reals with the discrete topology.*

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

MATHEMATICS AND APPLIED STATISTICS

Flaherty, Charles, *Client and program variables as predictors of competitive employment for rehabilitated job applicants.*

Lee, Hyung Chul, *Consistency comparison of smoothers with exploration of potentially superior alternatives.*

Lewis, Melvin, *The impacts of athlete, sports, and coach characteristics on athlete ratings of coaches.*

Neshatian, Mahmoud, *The impact of social and ideological factors on voting behavior in the 1984 presidential election.*

Wallace, Scott, *Factor analysis in the examination of the construct validity of life style measures.*

CONNECTICUT

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

MATHEMATICS

Wang, Tixiang, *Morse theory on Banach manifolds.*

STATISTICS

Kenyon, James Roy, *Bounds and approximations for multivariate probabilities: Their calculations and applications.*

Leeds, Steven, *Estimation and inference for Dirichlet mixed distributions.*

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

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

MATHEMATICS

Clark, Jeffrey William, *Homological invariants of knots of genus greater than one.*

Li, Jian-Shu, *Theta series and distinguished representations for symplectic groups.*

Savo, Alessandro, *Smooth cohomology of infinite dimensional Lie groups.*

White, Donald L., *The 2-blocks and decomposition numbers of* $\mathrm{Sp}(4,q)$, q *odd.*

DELAWARE

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

MATHEMATICAL SCIENCES

Liu, Yung-Way, *On the two-dimensional floating body problem.*

Porter, Kathryn Frost, *Evaluation maps on groups of self-homeomorphisms.*

Tkaczyńska, Katarzyna Maria, *Extreme points and support points of some subordination families of analytic functions.*

Weida, Richard Allen, *Replaceable partial spreads and the construction of non-Desarguesian translation planes.*

Wilson, Terence Edwin, *Topologically strongly transitive systems.*

DISTRICT OF COLUMBIA

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

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Munson, Peter J., *Detecting patterns in data: A new statistic for smoothness and nonrandomness.*

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

STATISTICS / COMPUTER AND INFORMATION SYSTEMS

Molajo, Adeola Olawale, *Some basic problems in the estimation and hypothesis testing of almost periodically correlated processes.*

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

MATHEMATICS

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

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

FLORIDA

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

MATHEMATICS

Cardona, Ivan, *Canonical systems of tori and Klein bottles in 3-manifolds of Heegaard genus two.*

STATISTICS

Peña, Edsel A., *Nonparametric tests for biased coin designs.*

University of Florida
(9;1,2,0,5,1,0,0)

INDUSTRIAL AND SYSTEMS ENGINEERING

Choi, Wonjoon, *Network flow models of building evacuation problems with flow-dependent arc capacities.*

Erkut, Erhan, *Distance constrained multi-facility tree network location problems with extensions to planar networks.*

King, Russell Edward, *Approximation techniques for open queueing networks of dynamic job shops with disassembly-reassembly type customers networks.*

Valldoser, Jose Antonio Ventura, *Simplicial decomposition and dual methods for nonlinear networks.*

Yamani, Abdulrahman Abdalla, *Analysis of an air transportation system.*

MATHEMATICS

Gader, Paul Douglas, *Image algebra techniques for parallel computations of the discrete Fourier transform and general linear transforms.*

Howell, Gary Wilbur, *Error bounds for polynomial and spline interpolation.*

STATISTICS

Adler, André Bruce, *Some limit theorems for weighted sums of random variables.*

Mantelle, Lily Llorens, *Inference for two-parameter exponentials under type I censoring.*

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

MATHEMATICS AND COMPUTER SCIENCE

Ali, Nasreen Kausar, *Numerical methods for bifurcation with special reference to Hopf bifurcation.*

Ali, Syed Wagar, *Steady states in the diffusive Volterra-Lotka model for several competing species.*

Monticino, Michael George, *The adequacy of measurable and of stationary strategies for approximating optimal return.*

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

MATHEMATICS

Stephens, Richard L., *Unique factorization of products of multivariate normal distributions in n dimensions.*

GEORGIA

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

MATHEMATICS AND COMPUTER SCIENCE

Cho, Jung Rae, *Varieties of medial algebras.*

Gikas, Miltiades C., *Fixed points and structural problems in ordered sets.*

Sherr, Joseph Samuel, *General and connected Ramsey theory for graphs.*

Georgia Institute of Technology
(4;1,0,0,0,3,0,0)

MATHEMATICS

Brown, Martin Lloyd, *Stochastic process approximation method with application to random Volterra integral equations.*

Massopust, Peter R., *Space curves generated by iterated function systems.*

Richards, Pamela Childs, *Group analysis of equations arising in ocean acoustics.*

Womble, David E., *The method of lines for time dependent free boundary problems.*

University of Georgia
(9;4,5,0,0,0,0,0)

MATHEMATICS

Hazareesingh, Lutchmiparsad, *Product integration with respect to infinite dimensional processes and applications to stochastic equations.*

Milin, Lazar, *A combinatorial computation of the first Pontryagin class of the complex projective plane.*

Shehada, Hasan, *Finite rank functionals on convex sets of operators.*

STATISTICS

Charenkavanich, Supoat, *A study in P-recursive sequences.*

Du, Wei, *Median estimation in stratified populations.*

Hu, Steve, *Convergence of sums of rowwise independent and exchangeable random variables and related applications.*

Liu, Ming Chung (Patrick), *Density estimation and techniques for selecting the smoothing parameters.*

Mathew, George, *Weak convergence of extreme value statistics based on Gaussian processes.*

Sundaraiyer, Vani, *Estimation of the parameters of the inverse Gaussian distribution from censored samples.*

HAWAII

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

MATHEMATICS

Mawata, Christopher Peter, *Schauder estimates for entire solutions of linear parabolic equations.*

PUBLIC HEALTH SCIENCES

Marchand, Loic, *Body size at different periods of life and breast cancer risk.*

IDAHO

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

MATHEMATICS

Igers, Jane, *A history of the Bieberbach conjecture.*

ILLINOIS

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

MATHEMATICS

Hawker, Cheryl Marie, *The effects of replacing some manual skills with computer algebra manipulations on student performance in business calculus.*

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

MATHEMATICS

Butterworth, William T., *Abel summability of entire functions of exponential type.*

Davis, Gregory John, *Homoclinc tangencies and infinitely many sinks.*

Muzere, Mark, *Relative Lie algebra cohomology.*

Richardson, De Juran, *A parametric group sequential procedure for comparing survival distribution of two treatments.*

Schlicker, Steven J., *Young diagrammatic methods in the homology of groups.*

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

MATHEMATICS

Adams, Scot Robert, *Trees and ergodic equivalence relations.*

Lin, Henry, *Weighted inequalities on product domains.*

Negreiros, Caio Jose Colletti, *Harmonic maps from compact Riemann surfaces into flag manifolds.*

Zelinsky, David Steven, *Some Abelian threefolds with nontrivial Griffiths group.*

STATISTICS

Severini, Thomas Alan, *Efficient estimation in semiparametric models.*

University of Illinois, Chicago
(2;0,1,1,0,0,0,0)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Lin, Lieh-San, *Performance modeling of database management systems.*

Stufken, John, *On optimal and highly efficient block designs for comparing test treatments with a control.*

University of Illinois, Urbana-Champaign
(15;14,0,0,0,1,0,0)

MATHEMATICS

Blyth, Russell David, *Recurring products of group elements.*

Butler, Charles Allen, *Approximation of Schur complements.*

Chen, Hsiu-Pong, *The locally free cancellation property of the group ring ZG.*

Choi, Kwok-Pui, *Some sharp inequalities for Martingale transforms.*

Gordon, Russell Arthur, *Integration and differentiation in a Banach space.*

Harper, Charles Douglas, *Measurement and quasi-states in quantum mechanics.*

Holmes, Randall Reed, *On the projective characters of the finite Chevalley groups.*

Kajitori, Kazuaki M., *Precipitous ideals on cBas.*

Karayannakis, Dimitris Marcos, *Spectral decompositions of isometries on Hardy spaces of the disk and the torus.*

Lacey, Michael Thoreau, *Some limit theorems (tentative title).*

Lefton, Lew Edward, *Degree theory and nonlinear boundary value problems at resonance.*

Leung, Denny Ho-Hon, *Uniform convergence of operators and Grothendieck spaces with the Dunford-Pettis property.*

Merkey, Phillip Roy, *Topics in coding theory. 1. The $A_s(n,d)$ problem in the Plotkin region. 2. Number of information symbols in a BCH code.*

Petrakis, Minos Aristidis, *Nearly representable operators.*

Weston, Dana Temer, *On descent in dimension two and non-split Gorenstein modules.*

INDIANA

Indiana University
(10;8,1,1,0,0,0,0)

MATHEMATICS

Akeroyd, John Richard, *Polynomial approximation in the mean with respect to harmonic measure on crescents.*

Athavale, Ameer, *Holomorphic kernels and commuting operators.*

Elias, Norma Salem, *Essential spectrum of Toeplitz operator on the weighted Bergman space.*

Habeb, Jebrel, *On Azumaya's exact rings and Artinian duo rings.*

Kim, Wansoon, *Completion and 'fundamental series' of Kac-Moody Lie algebra.*

Kuo, Hung-Ju, *Spatial truncation and finite difference schemes for systems of parabolic conservation laws.*

Lee, Oesook, *Sufficient conditions for ergodicity and central limit theorems for a class of Markov processes with applications to non-linear autoregressive models.*

Qiumsiyeh, Maher, *Edgeworth expansions in regression and comparison of empirical Edgeworth and bootstrap methodologies.*

Spraker, John Stephen, *The minimal normal extension for M_z on the Hardy space of a planar region.*

Wilczynski, Dariusz Mikolaj, *Group actions on homology complex projective planes.*

Purdue University
(19;4,3,0,0,5,0,7)

INDUSTRIAL ENGINEERING

Barfield, Woodrow, *Cognitive and perceptual aspects of three dimensional figure rotations for computer aided design.*

Bauer, Kenneth William, Jr., *Control variate selection for multiresponse simulation.*

Eshel, Gad, *Automatic generation of process outlines of forming and machining processes.*

Kacha, Pierre, *Development of a frame-based model for cut-off dimensions.*

Lee, Suk-ho, *Accuracy improvement of a CNC machining center by using a touch probe and a metrology pallet.*

Srinivasan, Ramesh, *A generalized analytical methodology for generative process planning.*

Tew, Jeffrey David, *Metamodel estimation under correlation methods for simulation experiments.*

MATHEMATICS

Bahri, Seoud, *Heat equation asymptotics in Kaehler geometry.*

Bellout, Hamid, *Blow-up solutions of nonlinear parabolic equations.*

Currey, Bradley Norton, *On the dual of an exponential solvable Lie group.*

Huckaba, Sam Wayne, *Reduction numbers and ideals of analytic spread one.*

Hwang, Ing-Lung, *L^2-boundedness of pseudo-differential operators.*

Johnston, Bernard Lawrence, *Local factorization of nonsingular birational morphisms in dimension greater than two.*

Kreider, Kevin Lee, *Asymptotic estimates of the time-dependent wave equation.*

Kwon, Yonghoon, *Pointwise error estimates for mixed finite element methods for quasilinear second order partial differential equations.*

Sharma, Rakesh Kumar, *Stability condition for systems of mildly non-linear elliptic partial differential equations.*

STATISTICS

Delampady, Mohan, *Testing a precise hypothesis: Interpreting P-values from a robust Bayesian viewpoint.*

Lim, Yong Bin, *Optimal designs in multivariate polynomial regression and polynomial spline regression.*

Sivaganesan, Sundarampillai, *Robust Bayesian analysis with ϵ-contaminated classes.*

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

MATHEMATICS

Alegria Ramirez, Carlos Antonio, *Some results in O-minimal theories.*

Magiropoulos, Emanouil, *Equivariant function spaces.*

Rosas, Ennis Rafael, *Rigidity theorems for right angled reflection groups.*

Saha, Ranjita, *Generic eigenvalues of Coxeter elements.*

Tiwari, Hemant Kumar, *Some results on the reflection representation of Hecke algebras of the certain Weyl groups.*

IOWA

Iowa State University
(12;1,7,0,0,4,0,0)

MATHEMATICS

Buls, Gary Dale, *Convergence and stability of variable-stepsize variable-formula multistep multiderivative methods.*

Dougherty, Robert Patrick, *Direct and inverse scattering of classical waves at oblique incidence to stratified media via invariant imbedding equations.*

El-Telt, El-Sayed A. M., *L^∞-norm problem and mid-range polish.*

Keremedis, Kostas, *Forcing in set theory and its application to topology.*

Mousa, Mohsen Salah Eldin, *On the stability analysis of hybird composite dynamical systems.*

STATISTICS

Abdurachman, Edi, *Processes with delays.*

Farmer, Charles M., *A study of non-additivity in factorial experiments with no replication.*

Loubert, Sharon K., *Inference procedures for the piecewise exponential model when the data are arbitrarily censored.*

Miller, Stephen M., *The limiting behavior of residuals from measurement error regression.*

Nagaraj, Neerchal K., *Estimation of stochastic difference equations with non-linear restrictions.*

Schnell, Daniel J., *Estimators for the nonlinear errors-in-variables model.*

Zimmerman, Dale Lee, *A random field approach to spatial experiments.*

University of Iowa
(8;8,0,0,0,0,0,0)

MATHEMATICS

Aguayo-Garrido, Jose, *Uniform continuous vector-valued functions and uniform measures.*

Huang, Haoru, *Translation planes of order 64 and Kernel GF(8) that admit a collineation group of order 64 in the translation complement.*

Jalawi, Fahad, *Topics in logic.*

Kannowski, Mark, *Simply-connected four-manifolds obtained from weighted homogeneous polynomials.*

Martinez-Yanes, Carlos, *Geometric fixed-point theory.*

Pascual-Garcia, Jaoquin, *Prufer rings, strong N-rings and r-lattices of ideals of commutative rings.*

Vielma-Barrios, Jorge Enrique, *Vector-valued perfect measures and strict topology.*

Willis, Daniel G., *Numerical solution of the heat equation by the method of heat potentials.*

KANSAS

Kansas State University
(8;2,4,0,0,0,2,0)

MATHEMATICS

Geier, Carla, *Evaluation of the mathematics placement program at Kansas State University.*

Lee, Hung Hwan, *The structure and dimension of Dirichlet sets.*

Lopeahmad, Raja, *A study of the relationships between some placement examinations and algebra grades for certain students at Kansas State University.*

Tseng, Shiojenn, *Simple plane arcs of positive area.*

STATISTICS

Ageli, Ali, *Residuals and residual diagnostics in non-linear regression models.*

Clason, Dennis L., *Using moving averages to detrend linear models.*

Elamaari, Ali, *Two sample nonparametric procedures for censored and uncensored data.*

Wasserstein, Ronald, *Robust permutation tests for scale parameters.*

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

MATHEMATICS

Badri, Matooq Ahmed, *On perturbations and products of generalized Bergman kernels.*

KENTUCKY

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

STATISTICS

Malice, Marie-Pierre, *Epidemic models in non-homogeneous populations.*

LOUISIANA

Louisiana State University, Baton Rouge
(2;2,0,0,0,0,0,0)

MATHEMATICS

Ashford, Stella Roberson, *Dyadic ramification in quartic number fields.*

Shim, Youngsook Lee, *Abstract Wiener space approach to Hida calculus.*

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

MATHEMATICS

Li, Li-Ge, *Positive solutions of some predator-prey interacting systems.*

Maier, Franz, *Diffeomorphism types of elliptic surfaces.*

Muller, Thomas Karl, *C*-Semigroup bundles and C*-algebras whose irreducible representations are all finite dimensional.*

MARYLAND

Johns Hopkins University
(4;2,0,0,1,0,0,1)

BIOSTATISTICS

Moulton, Lawrence Hale, *Bootstrapping generalized linear models with application to longitudinal data.*

MATHEMATICAL SCIENCES

Schultz, Todd Arthur, *Mathematical programming and stochastic games.*

MATHEMATICS

Harada, Masana, *A proof of the Riemann-Roch theorem.*

Martino, James Robert, *Calculation of extension groups of certain modules over the Steenrod algebra.*

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

MATHEMATICS

Shaaban, Mohamed, *Existence, uniqueness, and finite element methods for problems of mixed type.*

University of Maryland, College Park
(8;3,1,0,0,4,0,0)

MATHEMATICS

Conroy, John M., *Parallel direct solution of sparse linear systems of equations.*

Gabardo, Jean-Pierre, *Spectral gaps and uniqueness problems in Fourier analysis.*

Hilliard, Lorenzo, *The case of equality in Hopf's inequality.*

Holley, Kevin, *VLSI signal processing applied to nonlinear filtering.*

Kraft, James Stuart, *Iwasawa invariants of CM-fields.*

Monsour, Michael, *Optimality and other asymptotic properties of the likelihood estimator in the first order autoregressive process.*

Petersen, Peter, V, *Fatness of covers.*

Smith, Nancy, *Multivariate cumulative sum control charts.*

MASSACHUSETTS

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

MATHEMATICS

Charette, Leonard Joseph, *Small sample likelihood ratio test for a repeated measures design with autocorrelated error.*

Brandeis University
(4;4,0,0,0,0,0,0)

MATHEMATICS

Ko, Hyoung June, *Characteristic-free Littlewood-Richardson type decomposition of skew Schur complex.*

Luo, Tie, *On the Riemann-Roch type inequalities.*

Marcos, Eduardo, *Grothendieck groups of quotient singularities.*

Martsinkovsky, Alexander, *Almost split sequences and Zariski differentials.*

Harvard University
(21;10,6,1,0,3,0,1)

APPLIED SCIENCES

Montana, David J., *Tactile sensing and the kinematics of contact.*

Tygar, Justin D., *An integrated toolkit for operating system security.*

Walstad, Leonard, *Modelling and forecasting of deep ocean and near surface mesoscale eddies: Hindcasting and forecasting with, and coupling a surface boundary layer model to, the Harvard quasigeostrophic model.*

Zazanis, Michael A., *Statistical properties of perturbation analysis estimates for discrete event systems.*

BIOSTATISTICS

Tosteson, Tor Devin, *Surrogate variables in nonlinear regression: Methods for design and analysis.*

MATHEMATICS

Aguilar Rodriquez, Rogerio, *Connections between representations of Lie groups and sheaf cohomology.*

Block, Jonathan L., *Excision in cyclic homology of topological algebras.*

Boston, Nigel, *Deformation theory of Galois representations.*

Corlette, Kevin David, *Stability and canonical metrics in infinite dimensions.*

Elkies, Noam D., *Supersingular primes of a given elliptic curve over a number field.*

Getzler, Ezra, *Degree theory of Wiener maps and supersymmetric quantum mechanics.*

Gouvêa, Fernado Quadros, *Arithmetic of P-adic modular forms.*

Jones, John W., *Iwashawa theory of multiplicative primes.*

Keating, Kevin Patrick, *Lifting endomorphisms of formal groups.*

Simpson, Carlos T., *Systems of Hodge bundles and uniformation.*

Thakur, Dinesh Shraddhanand, *Gamma functions and Gauss sums for function fields and periods of Drinfeld modules.*

STATISTICS

Carlin, John Brooke, *Seasonal analysis of economic time series.*

Hesse, Christian Hermann, *Limit theorems for linear processes and applications.*

Kong, Augustine, *Multivariate belief functions and graphical models.*

Weld, Leisa H., *Significance levels from public-use data with multiply-imputed industry codes.*

Yoshizoe, Yasuto, *Analysis of the binary regression model.*

Massachusetts Institute of Technology
(22;11,0,3,0,5,0,3)

MATHEMATICS

Altschul, Stephen Frank, *Aspects of biological sequence comparison.*

Bang-Jensen, Jesper, *The multiplicities of certain K-types in irreducible spherical representations of semisimple Lie groups.*

Berrizbeitia, Pedro Jose, *An explicit reciprocity theorem in finite extensions of the field of p-adic numbers.*

Breazu, Valeriu, *Conservative extensions of type theories.*

Buss, Jonathan F., *Relativized alternation and space-bounded computation.*

Cehelsky, Priscilla, *Multiple equilibria, weather regimes, and nonlinear equilibration in a simple baroclinic model.*

Chow, Kwok Wing, *Mean flow-harmonic interaction: An alternative approach to stability theories.*

Dunne, Patrick Hugh, *An asymptotic analysis of penetrative convection.*

Gross, Robert Howard, *A quantative form of Schmidt's theorem.*

Kierlanczyk, Marek, *Determinants of Laplacians.*

McGovern, William Montgomery, III, *Primitive ideals and nilpotent orbits in complex semisimple Lie algebras.*

Nava, Oscar Alfonso, *On the combinatorics of Plethysm.*

Quinn, Forrest C., *Extremal properties of intersecting and overlapping families.*

Quiroz, Adolfo José, *On Donsker classes of functions and their application to tests for goodness of fit.*

Schmitt, William Russell, *Antipodes and incidence coalgebras.*

Schwartz, James O., *The determination of the admissible nilpotent orbits in real classical groups.*

Tan, It-Beng, *Results in set theory.*

Thurstans, Robert Peter, *On spiral modes in galaxy models.*

Vistoli, Angelo, *Alexander duality in the intersection theory of moduli spaces.*

Xu, Chuan-yi, *On the asymptotic expansion of the trace of the heat semigroup for a subelliptic operator.*

Zaff, David B., *Secondary instability in Ekman boundary flow.*

Ziegler, Gunter M., *Algebraic combinatorics of hyperplane arrangements.*

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

MATHEMATICS

Enzmann, Robert Pendragon, *A mathematical model of robotic bipedal walking.*

Lee, Dah-Wing, *An example of a non-Bayes rule which is admissible for total results.*

Shirley, Angela, *Testing the hypothesis that the minimum of several location parameters is negative.*

Yen, Shwuhuey, *Hamiltonian elimination orderings of graphs.*

Tufts University
(1;1,0,0,0,0,0,0)

MATHEMATICS

Taylor, Cleveland A., *The interplay between max-domains of partial attraction and the Deley-Hall problem.*

University of Massachusetts, Amherst
(8;6,0,0,0,2,0,0)

MATHEMATICS AND STATISTICS

Golfin, Andrew Samuel, *Representations and products of lattices.*

Kambule, Matthew Tebby, *The Hotta complex.*

Keating, Salvatrice Farinella, *Families of theta functions indexed by Hermite polynomials.*

Khan, Riaz R., *G_a orbits in projective space.*

Pomeranz, Shirley Barbara, *Computational methods for nonlinear elliptic eigenvalue problems.*

Quinones, Wilfredo, *The axisymmetric solution of a boundary value problem for a hyperelastic cylinder.*

Wang, Yar-Yi, *Automorphic forms and unitary representations.*

Younce, Matthew B., *Random variables on non-Boolean structures.*

MICHIGAN

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

MATHEMATICS

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

Kim, Yong-In, *Bifurcation of periodic orbits for nonpositive definite Hamiltonian systems.*

Stroethoff, Karel Mattheus Rudolf, *Characterizations of the Bloch space and related spaces.*

Wang, Duo, *On the monotonicity and critical points of the period function of some second order equations.*

STATISTICS AND PROBABILITY

Aras, Girish, *Second order sequential estimation of the mean exponential survival time under random censoring.*

Sriram, T. N., *Sequential estimation of parameters in a first order autogressive model.*

Thelen, Brian Jude, *Fisher information and dichotomies in contiguity/asymptotic separation.*

University of Michigan, Ann Arbor
(25;7,0,1,4,0,0,7)

BIOSTATISTICS

Davis, Charles Shaw, *Nonparametric methods for analyzing incomplete non-response in repeated measurements.*

Fygenson, Mendel, *Mathematical and statistical contributions in semi-Markov processes.*

Kuritz, Stephen Jay, *Interval estimation for summary measures of attributable risk from case-control studies.*

Kushler, Robert Harvey, *Models and methods for hormone pulse analysis.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Abdoo, Yvonne Marie, *A model for nurse staffing and the impact of inter-rater reliability of patient classification on nurse staffing requirements.*

Alden, Jeffrey Morgan, *Error bounds for rolling horizon procedures.*

Baksh, Mohammed Shariff Bin Nab, *Effectiveness of capital budgeting procedures for dealing with risk.*

Bloswick, Donald Stephen, *Ladder climbing: A dynamic biomechanical model and ergonomic analysis.*

Boyd, Amy Hancock, *Development of a minimum cost sequential test to monitor injury incidence on an operation.*

Dula, Jose Hernando, *Bounds on the expectation of convex functions.*

Durance, Paul William, *Application of logical design to incomplete medical record processing.*

Kotkin, Meyer H., *Operating policies for non-stationary two-echelon inventory systems for reparable items.*

Mittenthal, John, *Single machine scheduling subject to random breakdowns.*

Radwin, Robert Gerry, *Neuromuscular effects of vibrating hand tools on grip exertions, tactility, discomfort and fatigue.*

Shin, Sung Yong, *Visibility in the plane and its related problems.*

Wiker, Steven Forrester, *Effects of relative hand location upon movement time and fatigue.*

MATHEMATICS

Corrales-Rodriganez, Capi, *Nevanlinna theory in the p-adic plane.*

Estep, Donald Joseph, *L^∞ bounds for families of translation invariant, L^2 stable operators in one dimension.*

Hwang, Wen-Dar, *Quasiisometric extension property on arcs.*

Richter, Stefan, *On invariant subspaces of multiplication operators on Banach spaces of analytic functions.*

Russell, Bryant E., *Inverse problems for propagation of discontinuous progressing waves.*

Schultheis, Fred B., *Explicit reciprocity laws in algebraic function fields.*

Sullivan, Patrick John, *Subnormal operators, dilation theory and the classes $\mathbf{A}_n$.*

STATISTICS

Bilotti-Aliaga, Martha, *A problem in sequential analysis.*

Leung, Pui Lam (William), *Estimation of parameter matrices and their eigenvalues in multivariate analysis.*

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

MATHEMATICS

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

Western Michigan University
(3;0,2,1,0,0,0,0)

MATHEMATICS AND STATISTICS

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

Shahrokhi, Farhad, *Design and analysis of efficient routing algorithms to determine the maximum concurrent flow in networks.*

Vidmar, Thomas J., *Design and analysis of drug combination experiments.*

MINNESOTA

University of Minnesota, Minneapolis
(5;4,1,0,0,0,0,0)

MATHEMATICS

Brown, Russell Murray, *Layer potentials and boundary value problems for the heat equation on Lipschitz cylinders.*

Takac, Peter, *A trace class criterion and elliptic operators with unbounded coefficients on $\mathbf{R}^n$.*

Weerasinghe, Ananda, *Some properties of stochastic flows and diffusions with reflections.*

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

STATISTICS

Ahn, Chul Hwan, *Diagnostics for heteroscedasticity in mixed linear models.*

MISSOURI

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

MATHEMATICS

Abedessalam, Musbah, *On Banach spaces containing l_1 and linear Kelley spaces.*

STATISTICS

Bair, Eugenia Y., *Development of two stage tests with medical applications.*

Quasem, Mohammad Abdul, *Stochastic models of unreliable production line with continuous material flow.*

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

MATHEMATICS

Meinershagen, Sandra, *Topics in derivation bases.*

Tran, Tan C., *Weighted symmetry of real functions.*

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

ENGINEERING MECHANICS

Fu, Ching-Chih, *Efficient finite element methods for large displacement elastoplastic problems.*

MATHEMATICS AND STATISTICS

Harder, Alberta Marie, *Fixed point theory and stability results for fixed point iteration procedures.*

Lucas, Larry Albert, *Tests for and against a stochastic ordering between multinomial populations: The general case.*

Washington University
(7;3,1,1,0,1,1,0)

MATHEMATICS

Cox, Cassandra Lee, *On the characterization of cylinderlike surfaces.*

Pais, Joseph John, *Interdisciplinary studies (logic and methodology of science).*

Manfredi, Juan Jose, *Regularity of the gradient for a class of nonlinear possibly degenerate elliptic equations.*

Province, Michael Arthur, *Mathematical models for the investigation of temporal trends in quantitative genetics.*

Zaloznik, Ales, *Function spaces generated by blocks associated with spheres, Lie groups and spaces of homogeneous type.*

SYSTEMS SCIENCE AND MATHEMATICS

Dayawansa, Wijesooriya, *Geometry of the feedback linearization problem.*

Ying, Xingren, *A reliable root solver for automatic computation with application to stress analysis of a composite plane wedge.*

MONTANA

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

MATHEMATICAL SCIENCES

Jarratt, Mary, *Approximation of the eigenvalues of Sturm-Liouville problems by the sinc-collocation method.*

McArthur, Kelly Marie, *Sinc-Galerkin solution of second-order hyperbolic problems in multiple space dimensions.*

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

MATHEMATICAL SCIENCES

Al-Kadhi, Mohammed A., *Valuation theory of monoids.*

Lam, Fat C., *A school boundary problem in a period of declining enrollment and its extension to a multi-state problem.*

Mikhail, Adel Fahmy I., *Rings with fixing elements.*

NEBRASKA

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

MATHEMATICS AND STATISTICS

El-Abyad, Abdelwahab, *Geometric approach to multiple objective optimization with application to multiple criteria decision making.*

Hankerson, Darrel Richard, *Boundary value problems for n-th order difference equations.*

Liu, Yi-Hsin, *Analysis of objective space in multiple objective optimization.*

NEW HAMPSHIRE

Dartmouth College
(2;1,0,0,0,0,0,1)

MATHEMATICS AND COMPUTER SCIENCE

Magagnosc, David, *Cuts and decompositions: Structure and algorithms.*

Walling, Lynne H., *Theta series attached to lattices of arbitrary rank.*

NEW JERSEY

Princeton University
(4;4,0,0,0,0,0,0)

MATHEMATICS

Belanger, Jay, *Hölder estimates for $\overline{\partial}$ in C^2.*

Chang, Der-chen, *On L^p and Hölder estimates for the $\overline{\partial}$-Neumann problem on strongly pseudoconvex domains.*

Hughes, Webster, *An atomic energy lower bound that proves Scott's correction.*

Thangavelu, Sundaram, *Riesz means and multipliers for Hermite expansions.*

Rutgers University, New Brunswick
(7;4,0,0,0,3,0,0)

MATHEMATICS

Barsky, David J., *Critical points and critical exponents in percolation and Ising-type models.*

Hughes, Mark Patrick, *Finite abelian group actions on homotopy complex projective spaces.*

Lafferriere, Gerardo Arturo, *A stratification theorem for an extension of the class of subanalytic sets.*

Nicolau, Monica, *A classification of invariant knots.*

Sampaio, Joao C. V., *Dihedral group actions on homotopy complex projective spaces.*

Schaettler, Heinz M., *On the local structure of time-optimal trajectories for a single-input control-linear system in dimension 3.*

Videla, Carlos Rodolfo, *Definability in unipotent matrix groups and in fields of non-zero characteristic.*

Stevens Institute of Technology
(2;1,1,0,0,0,0,0)

MATHEMATICS

Foehl, Henry Clay, *Asymptotic expansion of certain Fourier integrals via the method of stationary phase.*

Samaha, Semaan, *A discrete version of Von-Mises.*

NEW MEXICO

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

MATHEMATICAL SCIENCES

Davies, Arouna, *The maximum flow in a network—Karmarkar vs. Ford and Fulkerson.*

Lee, Wu-Yen, *Co-representing graphs for a class of torsion-free Abelian groups.*

Moore, Wayne, *Conformal geometry and differential geodesy.*

University of New Mexico
(4;1,2,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Aragon, Jorge, *Linear programming algorithms for optimal integration of surveys.*

Bertram, Barbara Elizabeth Smith, *Analysis and solution of integral equations with fixed Cauchy singularities.*

Castillo, Jose E., *On variational grid generation.*

Hong, Soon Bak, *Comparison problems for experiments with curve responses.*

NEW YORK

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

MATHEMATICS AND COMPUTER SCIENCE

Blasius, Arlene, *Parallel processing of linear recurrence systems.*

CUNY, Graduate Center
(2;1,0,0,0,1,0,0)

MATHEMATICS

Miller, Walter, *Differentiating invariant manifolds of dynamical systems with application to Melnikor theory.*

Searl, James, *Rational homotopy theory: the general nilpotent case.*

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

MATHEMATICS AND COMPUTER SCIENCE

Balart, Rogelio, *Mathematical modeling of directional solidification with weak gravity.*

Kalogerakis, Michael, *Linear solvers on multiprocessor machines.*

Mugan, Ugurhan, *On the initial value problem of some Painlevé equations.*

Papadopoulou, Elena, *VLSI structures and iterative analysis for large scale computation.*

Columbia University
(8;2,4,0,0,2,0,0)

APPLIED MATHEMATICS

Baransky, Yurij, *Ideal, steady-state axisymmetric magnetohydrodynamic equations with flow.*

Chaiken, Joel, *Chaos, mapppings and spatial complexity in fluids.*

STATISTICS

Chen, Sanping, *Linear regression in survival analysis with censoring depending on covariates.*

Munera, Catherine Laure, *An empirical Bayes approach to risk assessment in certain reproduction studies.*

Tian, Cheng-Jun, *Statistical analysis of periodical correlated time series.*

Wu, Wei-Qiu, *Stochastic approximation and sequential minimization under constraints.*

MATHEMATICS

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

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

Cornell University
(17;2,2,0,10,3,0,0)

APPLIED MATHEMATICS

Avram, Florin, *Some limit theorems for stationary sequences with infinite or finite variance.*

Driver, Bruce K., *Convergence of the four dimensional U(1) lattice gauge theory to its continuum limit.*

MATHEMATICS

Rakesh, *A coefficient determination problem for the wave equation.*

Reissell, Leena-Maija, *Gaps in Scott ranks.*

Rioux, Jacques, *On the equivariant homotopy type of compact G-ANR's.*

OPERATIONS RESEARCH

Buss, Arnold Herbert, *Crossings of non-Gaussian processes with reliability applications.*

Duffy, Diane E., *Alternative methods of estimation in logistic regression.*

Heijmans, Johannes G. C., *Discriminatory and symmetric von Neumann-Morgenstern solutions for a class of symmetric games.*

Morris, Walter Duff, Jr., *Oriented matroids and the linear complementarity problem.*

Ryan, Jennifer, *Integral monoid duality models.*

Sanchez, Paul James, *Design and analysis of frequency domain experiments.*

Sanchez, Susan Marie Malila, *Contributions to the Bernoulli selection problem.*

Sheldon, Robert Steven, *The lot scheduling problem in the hierarchy of decision models.*

Willinger, Walter, *Pathwise stochastic integration and almost-sure approximation of stochastic processes.*

Wypij, David, *Estimation methods for grouped binary data.*

STATISTICS

Duffy, Diane E., *Alternative methods of estimation in logistic regression.*

Meredith, Michael Paul, *Statistics of the closest pair in samples of size three: Symmetric and asymmetric populations with and without contamination.*

New York University, Courant Institute
(21;6,0,0,0,13,0,2)

MATHEMATICS

Al-Rubaee, Faiz, *Realizing Alexander polynomials in lens spaces.*

Bukiet, Bruce G., *A study of some numerical methods for two-dimensional curved detonation problems.*

Donnay, Victor, *Ergodic geodesic flow on the 2-sphere.*

Fauci, Lisa, *A computational model of aquatic animal locomotion.*

Flores, Jorge Gilberto, *On a threshold of codimension 1 arising from the Nagumo equation.*

Hsu, Guan-Hsong, *Existence of homoclinic orbits in systems with saddle-focus of Shil'nikov type.*

Ipina, Lynne, *The drag on a 2-D profile in a transonic flow.*

Joseph, Kayyunnapara T., *Boundary layers in approximate solutions of initial boundary value problems for hyperbolic conservation laws.*

Kosecki, Roman, *Long-time existence of classical solutions to the Klein-Gordon-Dirac equation in three space dimensions.*

Lipton, Robert Pons, *An optimal lower bound in the energy dissipation rate for homogenized Stokes flow.*

Lowe, Bruce D., *A variational method for parameter identification.*

Luke, Jonathan, *Analytical and numerical studies of sedimentary suspensions.*

McLaughlin, John C., *Random walks and convolution operators on free products.*

Nair, Balakrishnan, *Random rays and beams and their relationship to the parabolic wave equation.*

Ng, Kam-Chuen, *Magnetic surfaces and neoclassical transport in stellarators.*

Orellana, Oscar, *Approximate theory for the nonlinear evolution of vortex sheets.*

Sherman, Arthur Stewart, *Random walk methods for reaction diffusion equations.*

Sternberg, Peter J., *The effect of a singular perturbation on nonconvex variational problems.*

Wang, Wei-Ping, *Existence and stability of multiple impluse solutions to McKean's nerve conduction caricature.*

Weinberger, Edward Dean, *A stochastic generalization of Eigen's model of natural selection.*

Winkler, Andrew, *Cusp forms and Hecke groups.*

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

MATHEMATICS

Ariyakulkan, Chutima, *The nonadditivity test of a two-way classification based on model II (random-effect).*

Camacho, James, Jr., *Lattice outer measures and extensions on normal lattices.*

Huerta, Carlos, *Properties of zero-one valued measures and their application to topology.*

Otway, Thomas Howard, *Removable singularities of coupled gauge fields.*

Vlad, Carmen Doina, *Special topics in probability measure theory.*

Rensselaer Polytechnic Institute
(9;1,0,0,1,7,0,0)

MATHEMATICAL SCIENCES

Ashley, Charles Edward, *Analysis of structural and topographical bottom variations on underwater acoustic propagations.*

Cassis, Beatriz, *The method of compensated compactness applied to a singular perturbed fourth order nonlinear PDE and a mixed hyperbolic-elliptic systems of PDE'S.*

Grinfeld, Michael, *Topological methods in phase transitions.*

Lemke, Paul Stephen, *Some properties of the K-median problem.*

Robertson, John S., *Mathematical models for selected effects of currents and moving sources in underwater acoustic propagation.*

Tran, Hien T., *Numerical approximations for linear functional differential equations with input and output delays: Convergence results and convergence rates.*

Tsao, Lee, *Domain perturbation in a free boundary problem.*

Villamizar, Vianey, *Elastic scattering from a viscous incompressible fluid sphere.*

Xu, Jian-Jun, *A global asymptotic theory of dendrite growth at small undercooling.*

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

MATHEMATICS AND STATISTICS

Banks, Steven, *Omitted covariates in the Cox proportional.*

Jinn, Jann-Huei, *Optimal two phase stratified sampling for estimation of the age composition of a fish population and the effect on analytical statistics of different imputation methods.*

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

MATHEMATICAL SCIENCES

Chamberlain, Robert F., *Groups with certain finite homomorphic images cyclic.*

Kulesza, John S., *Dimension theory of non-separable metric spaces.*

Nadel, Andrea M., *Weighted least squares regression with censored data.*

SUNY at Buffalo
(10;7,0,0,0,3,0,0)

MATHEMATICS

Ishihara, Paul, *One-dimensional map analysis of concave subcritical oscillatory intervals of quiescence in an extended FitzHugh-Nagumo system.*

Lakshmanan, Neela, *An elementary proof of the Kronecker-Weber theorem.*

Lin, Qing, *Imbedded operators and geometric tensor product.*

Mohapeloa, Khomo, T.S., *A 2-colimit characterization of torsors.*

Nan Tie, Gary, *T-groupoids, $\overline{W}$, and a Dold-Kan theorem for crossed complexes.*

Sato, Yosuke, *Semi-normal measures on strong partition cardinals.*

Wang, Li, *Symbolic dynamics for a class of unimodal maps and a metric property of bifurcation in trapezoidal maps.*

Zhang, Guo-Chu, *Traveling wave solutions to reaction density-dependent diffusion equations.*

Zhu, Kehe, *VMO, ESV, and Toeplitz operators on the Bergman space.*

STATISTICS

Choi, Youn, *Another approach for obtaining time dependent transition probabilities and parameter estimation for some stochastic epidemic models.*

SUNY at Stony Brook
(12;7,0,0,4,1,0,0)

APPLIED MATHEMATICS AND STATISTICS

Chopra, Sunil, *Dule role modules and polyhedra of blocking group problems.*

Frey, Robert Joseph, *On the classification and decomposition of matroids.*

Podar, Sunil, *On communication in distributed computing systems.*

Tsiotras, George D., *Exact and approximate analysis of queueing network models with blocking.*

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

MATHEMATICS

Dana, Jharna, *Projective structures on Riemann surfaces.*

Ji, Rong-hui, *On the crosses product C^*-algebras associated with Furstenberg transformations on tori.*

Koch, Lisa, *Chains and Lorentz geometry.*

Petri, Monica, *Arithmetic classification of families of abelian varieties of quaternion type.*

Sha, Jiping, *p-Convexity of manifolds with boundary.*

Walschap, Gerard, *On 4-dimensional manifolds of nonnegative curvature.*

Yang, DaGang, *The secondary characteristic numbers and the residue of an F-structure.*

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

MATHEMATICS

D'Antonio, Lawrence Arthur, Jr., *Functions of generalized bounded variation and summability of Fourier series.*

Gorjizadeh, Vali, *X-outer Galois theory for prime rings.*

Moin, Arifa K., *Relative effectiveness of various techniques of calculus instruction: a meta-analysis.*

Servatius, Brigitte, *Planar rigidity.*

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

MATHEMATICS

Beauvais, Francois, *Reconstructing a set or measure with finite support from its images.*

Chai, Young Doo, *Application of topology to an isoperimetric inequality.*

Ha, Young-Hwa, *Spherical maximal operaters with multidimensional parameter sets.*

Krishnapriyan, Hampapuram K., *p-adic cohomology of some singular varieties.*

Sakkalis, Panajiotis (Takis), *An algorithmic application of Morse theory to real algebraic geometry.*

STATISTICS

Maguluri, Gangaji, *Inference of a bivariate survival function.*

NORTH CAROLINA

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

MATHEMATICS

Kuusela, Maija, *Ideal plastic flow in volume preserving orthogonal coordinates.*

Lehtinen, Risto, *Grandular flow in a tall silo.*

Scott, Damon, *A non-integral dimensional random walk.*

North Carolina State University, Raleigh
(11;2,1,0,4,3,0,1)

MATHEMATICS

Benassi, Maurizio, *Parallel algorithms for the solution of variational inequalities.*

Dhamacharoen, Ampon, *Positive discrete linear control systems with bounded inputs and graded manpower systems.*

Lin, Xiu-Ding, *Minimal polynomials of derivations of prime rings.*

Nguyen, Quan Quoc, *Minimal solutions to systems of equations over a free semigroup.*

Pierce, Daniel John, *Parallel least squares computations and related material.*

OPERATIONS RESEARCH

Dwiprabowo, Hariyatno, *A study of multiple objective optimization for multi-use management in even-aged forests.*

El-Taha, Muhammad Ahmad, *Sample-path analysis of queueing systems: New results.*

Gawande, Mohan, *Projection algorithms for specially structured constrained minimization problems.*

Leow, Soo Kar, *Heuristic and optimal assignments of redundant software versions and processors in fault-tolerant computer systems for maximum reliability.*

STATISTICS

Ewing, Stephen Cecil, *Application of the Lotka-Volterra dynamical equation to natural populations.*

Killam, Robert Bart, *The distribution of the maximum of a nonstationary dependent normal sequence with applications to SO_2 air pollution regulations.*

University of North Carolina, Chapel Hill
(13;2,2,0,0,0,0,9)

BIOSTATISTICS

Bailer, Albert John, *The effects of treatment lethality and tumor lethality on tests of carcinogenicity.*

Case, Larry Douglas, *A restricted class of group sequential designs for monitoring clinical trials.*

Hoberman, David, *A preliminary test estimator (PTE) for $P(Y > X)$ conditional on a rank test of proportional hazards in the uncensored two-sample problem.*

Karmous, Azza Rafik, *Robust, isotonic, and preliminary test estimators in some linear models under restrictions.*

Ma, Juliana Mei-Mei, *A modeling approach to system evaluation in research data management.*

Peterson, Bercedis Leola, *Proportional odds and partial proportional odds models for ordinal response variables.*

Reade, Susan J., *Effects of misclassification bias on regression analysis of epidemiologic data.*

Schindler, Jerald S., *Regression diagnostics: Mechanical and structural aspects of collinearity.*

Stokes, Maura Ellen, *The application of an integrated set of categorical analysis methods to a large environmental dataset with repeated measures and partially complete data.*

MATHEMATICS

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

Wilkens, George Rudolph, Jr., *Local feedback equivalence of control systems with 3 state and 2 control variables.*

STATISTICS

Davidian, Marie, *Variance function estimation in heteroscedastic regression models.*

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

OHIO

Bowling Green State University
(2;0,2,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Logan, Terrence, *Discriminant analysis using multiple observations.*

Pepple, Patricia Ann, *Simultaneous estimation of exponential means and normal variances using Bayesian methods.*

Case Western Reserve University
(7;2,0,0,5,0,0,0)

MATHEMATICS AND STATISTICS

Linner, Anders, *Curve straightening flow on surfaces.*

Slaby, Marek, *Some limit theorems related to large deviations and to the law of the iterated logarithm.*

OPERATIONS RESEARCH

Chen, Chih-Ken, *The design, evaluation, and testing of a flexible manufacturing system: A hybrid approach of optimization and physical emulation.*

Hsu, Lie-Fern, *Quality control in queueing-like manufacturing systems.*

Shyanjaw, *Issues involving the valuation of warranties, options and other contingent claims.*

Safrit, Asher, *Coordination of multi-level optimization and benefit allocation in agricultural integration.*

Xu, Chin-Yun Albert, *A C-based interactive FMS decision support software for capacity planning, layout design, and shop floor control.*

Kent State University
(4;3,0,1,0,0,0,0)

MATHEMATICAL SCIENCES

Belanger, Alain, *Averaging techniques in the predual of a W^*-algebra.*

Dowling, Patrick Noel, *The analytic Radon-Nikodým property in Banach spaces.*

Selvaraj, Chikkanna, *Rates of convergence and saturation classes for certain trigonometric interpolation operators.*

Tan, Hui-Qian, *Automatic formula derivation for Fortran code generation in finite element analysis.*

Ohio State University
(14;5,6,0,0,0,0,3)

MATHEMATICS

Ali, Sayel, *Upper bound for the degree of an approximating monomial.*

Bezdek, Andras, *Packing and covering problems.*

Lang, Mong-Lung, *On a question raised by Conway-Norton.*

Miklos, Dezso, *Some results related to a conjecture of Chratal.*

Sali, Attila, *Extremal problems for finite partially ordered sets.*

Song, Sung Yell, *The character tables of certain association schemes.*

Vitray, Richard, *Representativity and flexibility of drawings of graphs on the projective plane.*

Weaver, Robert, *Some problems in structural graph theory.*

STATISTICS

Chen, Jiunn-Charn, *Prevention of epidemics.*

Hatfield, Jeffrey, *Diffusion analysis and stationary distribution for the lottery competition model.*

Lee, Sukhoon, *Inference for a bivariate survival function induced through the environment.*

Sharma, Abha, *A distribution-free goodness of fit approach to testing a two-way layout.*

Taneja, Atrayee, *New approaches to testing the composite null hypothesis for the two sample problem.*

Toman, Blaza, *Bayesian optimal experimental design for the comparison of treatment with a control in the analysis of variance setting.*

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

MATHEMATICS

Saleh, Husni Hasan, *Rings whose cyclic modules have cyclic injective hulls and their generalizations.*

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

MATHEMATICAL SCIENCES

Huh, Chan, *Invariants of finite abelian groups acting on the algebra of two 2×2 generic matrices.*

OKLAHOMA

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

MATHEMATICS

Grasse, Patricia, *Results on finite presentation of mapping class groups of certain 3-manifolds.*

Saleh, Hossein, *The Schur multiplier of topological groups.*

OREGON

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

MATHEMATICS

Rohm, Dale M., *Alternative characterizations of weak infinite-dimensionality and their relation to a problem of Alexandroff's.*

STATISTICS

Longmate, Jeffrey, *Analysis of enumerative data in randomized block designs.*

Peterson, Bruce Alan, *Resource limited competition of two species: A dynamic model of a perturbed neutrally stable system.*

Saleh, Amina, *Nonlinear unbiased estimators that dominate the intra-block estimator.*

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

MATHEMATICS

Bogley, William Aubrey, *Retractive maps and local collapsibility.*

Peters, Michael, *New results for monosplines of least uniform norm.*

Smith, Dean Ellis, *On the Cohen-Macaulay property in commutative algebra and simplicial topology.*

PENNSYLVANIA

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

MATHEMATICS

Brezovec, Carl Thomas, *On matroid intersection.*

Choudhury, Shenaz, *Incorporation of viscosity into particle and vortex methods.*

Hudak, David George, *Finite element applications in electromagnetics.*

Pfenning, Frank, *Proof transformations in higher-order logic.*

STATISTICS

Ahn, Chul Woo, *Hierarchical stochastic modelling of arrest careers.*

Drexel University
(2;0,0,0,0,2,0,0)

MATHEMATICS AND COMPUTER SCIENCE

Thiel, Linda Christine, *Initializing iterative methods of solving elliptic partial differential equations.*

Weinstock, Evelyn Joyce, *Local stability of an age-structured population with density-dependent fertility and mortality.*

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

MATHEMATICS

Bao, Gang, *Application of group and invariant-theoretic methods to the generation of constitutive equations.*

Fillebrown, Sandra, *A Lipschitz estimate for the Schwarz-Christoffel function.*

Song, Hyun-Jong, *On the non-immersion of products of projective spaces.*

Williams, Margaret Ann, *Iterative solution of a nonlinear system arising in phase change problems.*

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

MATHEMATICS

Brown, Douglas Kenyon, *Functional analysis in weak subsystems of second-order arithmetic.*

Otero, Daniel Eduardo, *Extraction of mth roots in matrix rings over fields.*

Strayer, James Kent, *On Sylow 2-subgroups of class groups of quadratic and biquadratic fields.*

Zhou, Jian-Xin, *Topics in differential games and variational inequalities.*

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

MATHEMATICS

Shoham, Daniel, *Pursuit problems.*

STATISTICS

Copenhaver, Margaret Di Ponzio, *Multiple comparisons of simple effects in the two-way analysis of variance with fixed effects.*

Getson, Albert John, *{2}-inverses and their statistical application.*

Tharthare, Suresh, *Combinatorial problems relating extensions of incidence systems.*

University of Pennsylvania
(8;3,3,0,0,0,0,2)

MATHEMATICS

Kwong, Yui-Hoi Harris, *Minimum periods of infinite integer sequences generated by rational functions modulo m.*

Lazebnik, Felix, *Some extremal problems for graphs with fixed numbers of vertices.*

Rordam, Mikael, *The theory of unitary rank and regular approximation.*

Wertheimer, Michael Aaron, *Designs in quadrics.*

Woo, Sung-Sik, *On some connections between K-theory and algebraic geometry.*

STATISTICS

Jacobson, Marc, *Limit theorems and algorithms for extinction probabilities of general agile dependent branching processes.*

Mohebbi, Cyrus, *An extension of the median test for analysis of variance.*

Nagaraj, Shamala, *The posterior densities of ARMA parameters obtained via a spectral density parametrization.*

University of Pittsburgh
(8;1,7,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Basak, Indrani, *Some aspects of pairwise comparisons in analytic hierarchic processes.*

Basak, Prasanta, *Some aspects of pairwise comparisons.*

Boudreau, Robert M., *Prediction of future observations in factor analytic type growth models.*

Das, Rita, *Some contributions to robust optimum tests.*

Dove, Kevin L., *Spaces with tree-like pi-bases.*

Fang, Zhaoben, *Dependence classes and independent characterization.*

Patwardhan, Girish R., *Inference on rank of regression matrix and tests for exponentiality.*

Sandilya, Mita, *On some problems on outliers in linear regression models.*

RHODE ISLAND

Brown University
(7;4,1,0,0,2,0,0)

APPLIED MATHEMATICS

Adachi, Steven H., *Convergence to equilibrium and critical slowing down of dynamical models in statistical mechanics.*

Yin, Gang, *Asymptotic properties of decentralized stochastic approximation algorithms.*

Graffigne, Christine, *Experiments in texture analysis and segmentation.*

MATHEMATICS

Aluffi, Paolo, *On some characteristic numbers for smooth plane curves.*

Cukierman, Fernando, *Families of Weierstrass points.*

McConnell, Mark W., *Projective configurations and locally symmetric spaces associated to* $\mathrm{SL}(n, \mathbf{R})$.

Ulmer, Douglas L., *The arithmetic of universal elliptic modular curves.*

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

MATHEMATICS

Rao, Nagaraj S., *Controlled growth of competing species.*

SOUTH CAROLINA

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

MATHEMATICAL SCIENCES

Aull, Rhonda Lavern, *Hierarchical production planning and scheduling for multiproduct parallel processor environments.*

Burwell, Timothy Hunter, *A spatially distributed queueing model for ambulance systems.*

Peyton, Barry Wayne, *Some applications of clique trees to the solution of linear systems.*

Sharp, Daniel William, *Generalizations of Hankel and Toeplitz matrices and their associated interpolation problems.*

Whited, David Edgar, *Calculation of s-t reliability in planar graphs.*

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

MATHEMATICS

Sola, Mabruck, *Prabir Roy's space* Δ *and it's* N*-compactification.*

Zhou, Bing, *Topics in graph theory.*

TENNESSEE

Memphis State University
(4;1,3,0,0,0,0,0)

MATHEMATICAL SCIENCES

Dibrell, Phillip Carola, Jr., *New results for weighted composition operators.*

El-Saidi, Mohammed, *Generalized logistic regression.*

El-Zeky, Faten Abd Elmohsen, *On tests of partial association.*

Singh, Karan, *Some carcinogenesis models and effects of metabolism on cancer tumor development.*

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

MATHEMATICS

Keeling, Stephen Louis, *Galerkin/Runge-Kutta discretizations for parabolic partial differential equations.*

Nichols, Edward Caston, *Maximum principles for P-functions in elliptic partial differential equations.*

Vanderbilt University
(5;4,0,0,0,1,0,0)

MATHEMATICS

Biles, Daniel Craig, *Existence and continuous dependence of solutions of discontinuous differential equations.*

Calmelet, Colette Jeanne, *Stability and special solutions to the conducting dusty gas model.*

Campbell, Stephen Roger, *Some results on cubic well-covered graphs.*

Dean, Nathaniel, *Contractible edges and conjectures about path and cycle numbers.*

Kang, Young Yug, *Joins of finitely based lattice varieties.*

TEXAS

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

MATHEMATICS

Chapman, Scott Thomas, *Irreducible ideals and the strong two-generator property in some polynomial subrings.*

Race, David, *Consistency in lattices.*

Race, Denise, *Containment relations between classes of regular ideals in a ring with few zero divisors.*

Sutherland, David C., *Automorphism groups of strong Bruhat orders of Coxeter groups.*

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

MATHEMATICAL SCIENCES

El Hallabi, Mohammedi, *A global convergence theory for arbitrary norm trust region methods for nonlinear equations.*

Turner, Kathryn, *A variable metric variant of the Karmarkar algorithm for linear programming.*

MATHEMATICS

Haske, Carl R., *Analysis on supermanifolds.*

Southern Methodist University
(3;0,3,0,0,0,0,0)

STATISTICAL SCIENCE

Ames, Michael H., *Discrimination intervals for percentiles in the random effects covariance model.*

Reilman, Miriam, *Estimation and prediction in measurement error models.*

Rosenstein, Rebecca Belkin, *Components of* ϕ^2 *and tests of symmetry.*

Texas A & M University
(5;0,4,0,0,1,0,0)

MATHEMATICS

Chen, Guanrong, *Spline approach to optimal control problems with constraints.*

STATISTICS

Bremer, Ronald Henry, *The estimation of variance components in unbalanced models.*

Ensor, Katherine Bennett, *Some results in autoregressive modeling.*

Holiday, David Brian, *On nonparametric regression estimation in a correlated-errors model.*

Richardson, Edgar Wayne, *Asymptotic normality of the estimators of parameters of certain mixtures of discrete and continuous distributions.*

Texas Tech University
(4;1,3,0,0,0,0,0)

MATHEMATICS

Faghih Habibi, Javad, *Reflexive modules over algebras.*

Ho, Lun-Pin, *Edgeworth expansions of the Fisher's Z distribution in terms of non-normal distributions.*

Lin, Cen-Tsong, *Analysis of reliability data.*

Shen, Chi-Chung, *Some location-scale multivariate multisample nonparametric tests.*

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

MATHEMATICS

Benton, Christoper Paul, *K-projectivity in nonabelian groups.*

Gasiglewski, John Damien, *On quasi-Newton methods for maximum likelihood estimates with applications to the mixture density problem.*

Morgan, Jeffrey Joe, *Global existence, boundedness, and decay for solutions of semilinear parabolic systems of partial differential equations.*

West, Thelma, *The span structure of some graphs and continua.*

University of Texas, Austin
(8;5,1,1,0,1,0,0)

MATHEMATICS

Hill, Joe R., *Empirical Bayes statistics: A comprehensive theory for data analysis.*

Mai, Tsun-Zee, *Adaptive iterative algorithms for large sparse linear systems.*

Morgan, Ronald Benjamin, *Preconditioning eigenvalue problems.*

Moriah, Yoav, *Heegaard splittings and group presentation.*

Morrison, John, *Some problems in Martingale-like operators and flows of σ-algebras arising in communication theory.*

Spellman, David Laurance, *Critical level embeddings of S^3 and S^4.*

Sterba-Boatwright, Blair David, *Incompressible surfaces in alternating link complements.*

Wessel, Alan E., *The Radon-Nikodým property for convex sets.*

UTAH

University of Utah
(8;1,0,2,0,4,0,1)

MATHEMATICS

Arner, Paul R., *Surface/surface intersection using rational quadratic surface approximation.*

Barry, Phillip Jerome, *Urn models and computer aided geometric design.*

Garcia-Reimbert, Catherine, *Stable synchronization waves in neural networks and traveling waves in glassy polymers.*

Harris, Greg Allen, *Semilinear elliptic equations with nonhomogeneous boundary conditions.*

Lakos, Nela, *Boundary value problems for systems of semilinear elliptic equations.*

Little, Frank Ford, *Triangular surfaces.*

Mairn, Dennis Ray, *Schmidt differential operator rings.*

Piper, Bruce E., *Polynomials over triangles*

VIRGINIA

Old Dominion University
(1;0,1,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Hegde, Laxman M., *Estimation in truncated exponential family of distributions.*

University of Virginia
(7;5,0,0,0,2,0,0)

APPLIED MATHEMATICS

Fisher, Helene Dawn Smith, *Configuration dependent load potentials.*

Romine, Charles Holland, *Factorization methods for the parallel solution of linear systems.*

MATHEMATICS

Anderson, Mark Stanley, *On the dimensions of manifolds and Steifel-Whitney classes.*

Dillon, Meighan Irene, *Inner ideals and geometries in representations of affine Lie algebras.*

Gross, David, *Higher nullcones and commuting varieties.*

Jones, Leonard, *Centers of generic Hecke algebras.*

Seubert, Steven M., *Semigroups of finite convolution operators.*

Virginia Commonwealth University
(2;0,2,0,0,0,0,0)

BIOSTATISTICS

Bryant, Margaret F., *Interval estimation of an effective dose.*

Gennings, Chris, *Response surface analysis with correlated data.*

Virginia Polytechnic Institute and State University
(11;3,3,0,4,0,0,1)

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Erel, Erdal, *A methodology to solve single-model, stochastic assembly line balancing problem and its extensions.*

Ho, Chin Fu, *The method of sequential systematic sampling in digital simulation.*

Klutke, Georgia-Ann Grace, *Problems in feedback queueing systems with symmetric queue disciplines.*

Suresh, S., *Stochastic flow shop scheduling.*

MATHEMATICS

Corwin, Stephen, *Representation theory of the diagram A_n over the ring $k[[x]]$.*

Price, Ray H., *The property $B(p,\alpha)$-refinability and its relationship to generalized paracompact topological spaces.*

Robinson, Sam Leslie, *The semiclassical limit of quantum dynamics.*

Weaver, Martha Ellen, *Representations of graphs and coverings.*

STATISTICS

Kim, Buyong, *L_p norm estimation procedures and an L_1 norm algorithm for unconstrained and constrained estimation for linear models.*

Lu, Ruey-Pyng, *Multivariate nichemetrics.*

Morris, David Dry, *Randomization analysis of experimental designs under nonstandard conditions.*

WASHINGTON

University of Washington
(15;6,6,0,0,3,0,0)

APPLIED MATHEMATICS

King, Alan Jonathan, *Asymptotic behavior of solutions in stochastic optimization: Nonsmooth analysis and the derivation of non-normal limit distributions.*

Li, Yiping, *Free electron lasers with variable parameter wigglers, a strictly nonlinear oscillator with slowly-varying parameters.*

Sun, Jie, *On monotropic piecewise quadratic programming.*

BIOSTATISTICS

O'Sullivan, Margaret, *A new case of two sample test statistics in survival analysis.*

Stone, Roslyn Anne, *Methods of analysis of dose-escalation experiments.*

MATHEMATICS

Ljubić, Dragoslav, *Bireflectionality and normal forms of n-dimensional isometry groups.*

Minardi, John V., *Iwasawa modules for $\mathbf{Z}_p^d$-extensions of algebraic number fields.*

Mumma, Charles C., II, *Area formulae for continuous k-surfaces in n-space.*

Sturmfels, Bernd, *Computational synthetic geometry.*

Thompson, Robert David, *Unstable v_1-periodic homotopy at odd primes.*

Vucic, Aleksandar B., *Shape theory and hyperspaces.*

STATISTICS

Donnell, Deborah Jane, *Additive principal components: A method for estimating additive constraints with small variance from multivariate data.*

Grier, David Alan, *A computer system for Monte Carlo experimentation.*

Knight, Keith, *Estimation for infinite variance autoregressive processes.*

Sheehy, Anne Gerardene, *Constrained estimation of probability measures using minimal Kullback-Leibler divergence methods with an application in cluster analysis.*

Washington State University
(3;1,0,0,0,2,0,0)

MATHEMATICS

Richmond, Thomas Alan, *Finite-point order compactifications.*

Shingmin, Wang, *A nonlinear stability analysis of a model equation for liquid phase electroepitaxial growth.*

Yates, Kemble, *A cascading development model for amphibian embryos.*

WISCONSIN

University of Wisconsin, Madison
(20;15,0,0,0,0,0,5)

INDUSTRIAL ENGINEERING

Brennan, Patricia Flatley, *The effect of computerized decision aid on the decision making of nurse managers.*

Chapman, Larry, *Finger tremor differences in industrial mercury and pesticide exposure.*

Henning, Robert A., *Work rhythm and breathing rhythm in a repetitive perceptual motor task: The effects of synchronization on performance.*

Leung, Wai Keung, *Automatic assembly systems with parallelism.*

Wang, Tzyh-Jong, *The effects of simulation language and modeling methodology on simulation modeling performance.*

MATHEMATICS

Ahmadi, Mohammad H., *A generalization of the conjectures of Erdős-Straus and Sierpiński.*

Berge, John, *The knots in $D^2 \times S^1$ which have non-trivial Dehn surgeries yielding $D^2 \times S^1$.*

Beslagic, Amer, *Products of topological spaces.*

Boyles, David C., *Complex curves of degree two characters of two-bridge knot groups.*

Gunter, Elsa, *Pseudo-monomial characters and pseudo-M-groups.*

Kime, Katherine A., *Boundary controllability of Maxwell's equations.*

Levental, Shlomo, *Uniform limit theorems for Markov processes.*

Merrill, John Wickens Lamb, *Some results in set theory and related fields.*

Prescott, Richard W., *A necessary condition for supporting sets of measures with Cauchy integral in $H^2(B_n)$.*

Ramsay, John Robert, *Extensions of Ljusternik-Schnirelmann category theory to relative, equivariant and isovariant theories.*

Santos, Antonio Z. P., *Homeomorphisms of the circle and Fourier series.*

Schweiter, Gail Ann, *The r.e. wtt-structure of certain Turing degrees.*

Stuart, Jeffrey Lyle, *ZM- and MM-matrices.*

Svobodny, Thomas, *State estimation and observation of nonlinear oscillations.*

Velickovic, Boban, *Some results in combinatorial set theory.*

University of Wisconsin, Milwaukee
(1;1,0,0,0,0,0,0)

MATHEMATICAL SCIENCES

Lee, Heakyung, *Strongly right fully bounded Noetherian rings and bounded modules.*

WYOMING

University of Wyoming
(7;0,7,0,0,0,0,0)

STATISTICS

Al-Jelihawi, Said, *Hypothesis tests for homogeneity subject to linear constraints.*

Alkuzweny, Baha, *Bootstrap procedures for linear, robust, nonlinear regression: Application to pharmacokinetics.*

BuHamra, Sana, *Theory of parallel flats functions for the s^n factorial.*

Hussain, Abdul, *Sequential designs for the 3^n factorial.*

Pawel, David, *Conditional simulation of Gaussian random fields.*

Quimby, William F., *Selected topics in spatial statistical analysis: Nonstationary vector Kriging, Large scale conditional simulation of three dimensional Gaussian random fields, and hypothesis testing in a correlated random field.*

Veiga, Robert, *Sam II 1-micron aerosol extinction co-elect; variance estimates; long-term trends; correlation times; southern hemisphere wave one phases.*

CANADA

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

MATHEMATICS AND STATISTICS

Chung, Chang-Jo Felix, *Confidence bands for quantile function and percentile residual lifetime under random censorship.*

Kasonga, Raphael A., *Asymptotic parameter estimation theory for stochastic differential equations.*

Strauss, Hubertus, *Tilting modules over wild hereditary algebras.*

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

MATHEMATICS, STATISTICS AND COMPUTING SCIENCE

Solel, Esther, *A dynamic approach to stochastic scheduling via stochastic control.*

Tingley, Maureen A., *Robust confidence intervals.*

McGill University
(1;1,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Daigle, Daniel, *Birational endomorphisms of the affine plane.*

McMaster University
(3;3,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Emara, Salah Abbas Ahmed, *Mixed weighted inequalities for classes of operators.*

Latif, Abdul, *Fixed points of nonexpansive type multivalued maps.*

Sinnamon, Gordon John, *Operators on Lebesgue spaces with general measures.*

Queen's University
(3;2,0,0,0,0,0,1)

MATHEMATICS AND STATISTICS

Gimigliano, Alessandro, *On linear systems of plane curves.*

Mináč, Ján, *Galois groups, order spaces and valuations.*

Rees, Rolf Stephen, *On certain {1,2}-factorizations of the complete graph.*

Simon Fraser University
(4;0,0,0,0,1,0,3)

MATHEMATICS AND STATISTICS

Nonay, Gillian, *Results on the covering of 2-paths by cycles.*

Sattar, Muhammad Abdus, *Perturbations and bifurcations in the three-dimensional Kolmogorov model.*

Varga, Lewis Ernest, *On basic parametric relations for incidence systems.*

Zhang, Cun-Quan, *Longest cycles in graphs.*

Université de Montréal
(9;8,1,0,0,0,0,0)

MATHÉMATIQUES ET STATISTIQUE

Bergeron, François, *Une systématique de la combinatoire énumérative.*

De Freitas Druck, Iole, *Un modèle de filtres pour l'analyse réelle synthétique.*

Desbiens, Jocelyn, *Sur la méthode asymptotique de Mann.*

Elqortobi, Abdelkader, *Propriétés extrémales de courbes de Mandelbrot.*

Frigon, Marlene, *Méthode de transversalité topologique appliquée à des problèmes non linéaires pour des équations différentielles ordinaires.*

Haddad, Lucien Elie, *Le treillis des clones partiels sur un univers fini et ses coatomes.*

Joyal, Pierre, *La bifurcation de Hopf généralisée et son dual, la bifurcation homoclinique généralisée.*

Perron, François, *Application de l'invariance en théorie de la décision.*

Sarr, Babacar, *Homomorphismes p-petits de groupes abéliens p-torsion p-réduits.*

Université de Sherbrooke
(3;2,1,0,0,0,0,0)

MATHEMATICS/INFORMATION

Ait Ouassarah, Abderrahman, *Estimations à priori pour une classe de problèmes quasilinéaires dont les coefficients de la partie principale dépendent de la solution.*

Assouyat, Manesour, *Operateurs pseudo-differentiels et applications.*

Bravo, Gina, *Estimateurs améliorés des paramètres de la densité gaussienne inverse et d'une famille de distributions obtenues par mélange de lois normales avec paramètre.*

Université Laval
(8;5,0,0,0,3,0,0)

MATHÉMATIQUES, STATISTIQUES ET ACTUARIAT

Abdul-Hadi, Zayid, *Univalent log-harmonic mappings.*

WISCONSIN

University of Wisconsin, Madison
(20;15,0,0,0,0,0,5)

INDUSTRIAL ENGINEERING

Brennan, Patricia Flatley, *The effect of computerized decision aid on the decision making of nurse managers.*

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Velickovic, Boban, *Some results in combinatorial set theory.*

University of Wisconsin, Milwaukee
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MATHEMATICAL SCIENCES

Lee, Heakyung, *Strongly right fully bounded Noetherian rings and bounded modules.*

WYOMING

University of Wyoming
(7;0,7,0,0,0,0,0)

STATISTICS

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Alkuzweny, Baha, *Bootstrap procedures for linear, robust, nonlinear regression: Application to pharmacokinetics.*

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Hussain, Abdul, *Sequential designs for the 3^n factorial.*

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Quimby, William F., *Selected topics in spatial statistical analysis: Nonstationary vector Kriging, Large scale conditional simulation of three dimensional Gaussian random fields, and hypothesis testing in a correlated random field.*

Veiga, Robert, *Sam II 1-micron aerosol extinction co-elect; variance estimates; long-term trends; correlation times; southern hemisphere wave one phases.*

CANADA

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

MATHEMATICS AND STATISTICS

Chung, Chang-Jo Felix, *Confidence bands for quantile function and percentile residual lifetime under random censorship.*

Kasonga, Raphael A., *Asymptotic parameter estimation theory for stochastic differential equations.*

Strauss, Hubertus, *Tilting modules over wild hereditary algebras.*

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

MATHEMATICS, STATISTICS AND COMPUTING SCIENCE

Solel, Esther, *A dynamic approach to stochastic scheduling via stochastic control.*

Tingley, Maureen A., *Robust confidence intervals.*

McGill University
(1;1,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Daigle, Daniel, *Birational endomorphisms of the affine plane.*

McMaster University
(3;3,0,0,0,0,0,0)

MATHEMATICS AND STATISTICS

Emara, Salah Abbas Ahmed, *Mixed weighted inequalities for classes of operators.*

Latif, Abdul, *Fixed points of nonexpansive type multivalued maps.*

Sinnamon, Gordon John, *Operators on Lebesgue spaces with general measures.*

Queen's University
(3;2,0,0,0,0,0,1)

MATHEMATICS AND STATISTICS

Gimigliano, Alessandro, *On linear systems of plane curves.*

Mináč, Ján, *Galois groups, order spaces and valuations.*

Rees, Rolf Stephen, *On certain (1,2)-factorizations of the complete graph.*

Simon Fraser University
(4;0,0,0,0,1,0,3)

MATHEMATICS AND STATISTICS

Nonay, Gillian, *Results on the covering of 2-paths by cycles.*

Sattar, Muhammad Abdus, *Perturbations and bifurcations in the three-dimensional Kolmogorov model.*

Varga, Lewis Ernest, *On basic parametric relations for incidence systems.*

Zhang, Cun-Quan, *Longest cycles in graphs.*

Université de Montréal
(9;8,1,0,0,0,0,0)

MATHÉMATIQUES ET STATISTIQUE

Bergeron, François, *Une systématique de la combinatoire énumérative.*

De Freitas Druck, Iole, *Un modèle de filtres pour l'analyse réelle synthétique.*

Desbiens, Jocelyn, *Sur la méthode asymptotique de Mann.*

Elqortobi, Abdelkader, *Propriétés extrémales de courbes de Mandelbrot.*

Frigon, Marlene, *Méthode de transversalité topologique appliquée à des problèmes non linéaires pour des équations différentielles ordinaires.*

Haddad, Lucien Elie, *Le treillis des clones partiels sur un univers fini et ses coatomes.*

Joyal, Pierre, *La bifurcation de Hopf généralisée et son dual, la bifurcation homochinique généralisée.*

Perron, François, *Application de l'invariance en théorie de la décision.*

Sarr, Babacar, *Homomorphismes p-petits de groupes abéliens p-torsion p-réduits.*

Université de Sherbrooke
(3;2,1,0,0,0,0,0)

MATHEMATICS/INFORMATION

Ait Ouassarah, Abderrahman, *Estimations à priori pour une classe de problèmes quasilinéaires dont les coefficients de la partie principale dépendent de la solution.*

Assouyat, Manesour, *Operateurs pseudo-differentiels et applications.*

Bravo, Gina, *Estimateurs améliorés des paramètres de la densité gaussienne inverse et d'une famille de distributions obtenues par mélange de lois normales avec paramètre.*

Université Laval
(8;5,0,0,0,3,0,0)

MATHÉMATIQUES, STATISTIQUES ET ACTUARIAT

Abdul-Hadi, Zayid, *Univalent log harmonic mappings.*

Aboulaich, Rajae, *Méthodes du gradient conjugué pour la résolution numérique des équations de Navier-Stokes, 1986.*

Allouche, Mahmoud, *Fonctions caractéristiques de certaines classes de fonctions indéfiniment dérivables.*

El Koutri, Abdelkader, *Semi-groupes d'opérateurs, classes de vecteurs quasi-analytiques et les problèmes qui s'y rattachent.*

Essaloui, Driss, *Méthodes numériques pour la simulation d'écoulements visco-élastiques.*

Iamuremye, Alphonse, *Théorie de Fredholm et de Riesz dans les algèbres de Banach.*

Ider, Mostefa, *Calcul symbolique dans les classes de fonctions indéfiniment dérivables et quasi-analyticité généralisée.*

Souissi, Ali, *Quelques problèmes d'optimisation de formes en hydrodynamique.*

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

MATHEMATICS

Sawatzky, Ronald Peter, *Wave phenomena in fluid-filled distensible tubes: dispersion, dissipation and reflection.*

STATISTICS AND APPLIED PROBABILITY

Upadrasta, Surya Prakash, *Induced order statistics—A quantile estimator.*

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

MATHEMATICS

Aubertin, Bruce Lyndon, *Algebraic numbers and harmonic analysis in the p-series case.*

Reimers, Mark Allan, *Hyper-finite methods for multi-dimensional stochastic processes.*

STATISTICS

Coldman, Andrew James, *The development of resistance to anti-cancer agents.*

University of Calgary
(4;1,2,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Currie, James, *Nonrepetitive walks in graphs and digraphs.*

Easwaran, Chirakkal V., *Evolution of perturbations of some nonlinear dispersive wavetrains.*

Famoye, Felix Kiya, *Inference theory for some generalized discrete probability models.*

Gombay, Edit, *Applications of density estimators.*

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

MATHEMATICS AND ASTRONOMY

Kaminski, David Orest, *Asymptotic expansion of some canonical diffraction integrals.*

University of New Brunswick
(1;0,0,0,0,1,0,0)

MATHEMATICS AND STATISTICS

Charron, Richard Jacques, *Nonlinear discrete approximations.*

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

MATHEMATICS

Hackborn, William Walter, *Separation in interior Stokes flows driven by rotlets.*

Jessup, Barry John, *Rational Lusternik-Schnirelmann category and a conjecture of Ganea.*

Scott, Paul James, *Sufficient conditions for optimal control of multiple basin tidal power systems.*

University of Waterloo
(9;1,3,0,0,2,0,3)

APPLIED MATHEMATICS

Sahoo, Prassanna Kumar, *Theory and application of some measures of uncertainty.*

Sulston, Kenneth Ward, *Interaction of atoms and ions with solid surfaces.*

COMBINATORICS AND OPTIMIZATION

Boyd, Sylvia Cameron, *The subtour polytope of the travelling salesman problem.*

Curran, Donald, *Constructions for resolvable and doubly resolvable designs.*

Wiedemann, Douglas Henry, *Hamming geometry.*

PURE MATHEMATICS

Easton, David Charles, *Applications of the hypergeometric function in effective diophantine approximation.*

STATISTICS AND ACTUARIAL SCIENCE

Gould, Ann, *Some issues in the regression analysis of survival data.*

Willmot, Gordon E., *A class of counting distributions with insurance applications.*

Yatawara, Nihal, *Defection of outliers and random events in time series.*

University of Western Ontario
(4;1,1,0,0,2,0,0)

APPLIED MATHEMATICS

Chowdhury, Mansur Abdul, *Preregularization and anomalies.*

Schuck, Peter Laurens, *Numerical solution of subsidence mound problems in porous media.*

MATHEMATICS

Markovich, Tom N., *On a Tauberian theorem for Borel-type methods of summability.*

STATISTICAL AND ACTUARIAL SCIENCES

Kheoh, Thian San, *Topics in time series analysis and forecasting.*

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

MATHEMATICS AND STATISTICS

Jinadasa, Kankanam Gamage, *Matrix derivatives with application to estimation problems in multivariate statistics.*

Sharma, Ramesh, *Cauchy-Riemann $[CR]$-submanifolds of semi-Riemannian manifolds with applications to relativity and hydrodynamics.*

Siddiqui, Abdul Majeed, *Flow problems of the fluids of differential type.*

Doctoral Degrees Conferred 1985–1986

Supplementary List

The following entries supplement the list of thesis titles published in the November 1986 *Notices*, pages 924–938, and the February 1987 *Notices*, page 261.

MINNESOTA

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

STATISTICS

Ho, Chih-Hsiang, *One-sided sequential stopping boundaries for clinical trials: Classical and Bayesian approaches.*

WASHINGTON

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

MATHEMATICS

Booker, Andrew, *Construction of some reflecting Brownian motions.*

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.*