Doctoral Degrees Conferred 1990–1991

The following list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 1990 to June 30, 1991) reported in the 1991 Annual AMS-MAA Survey by 227 departments in 157 universities in the United States and Canada. Each entry contains the name of the recipient and the thesis title. The number in parentheses following the name of the university is the number of degrees listed for that university. A supplementary list, containing names received since compilation of this list, will appear in a spring 1992 issue of *Notices*.

Alabama

Auburn University (6)

ALGEBRA, COMBINATORICS AND ANALYSIS

Carnes, Nell Patrick, *Cyclic antiautomorphisms of Mendelsohn triple systems.*

Ehme, Jeffrey Allen, *Boundary value problems for ordinary differential equations.*

El-Zanati, Saad I., *Graph designs.*

Olson, Timothy Edward, *On the nonexistence of a basis of translates and approximation with wavelets.*

FOUNDATIONS, ANALYSIS AND TOPOLOGY

Curry, Stephen Burton, *One dimensional plane continua with disjoint e-dense closed subsets.*

Yu, Joseph Yi-Chung, *Automorphisms in the Stone-Čech remainder of the non-negative real number line.*

University of Alabama, Tuscaloosa (5)

MANAGEMENT SCIENCE AND STATISTICS

Abedin, Zainul, *Classical and Bayesian estimators of exponential reliability function.*

Kwon, O-Joung, *A real-time expert system for controlling packet switching networks.*

Lucy-Bouler, Thomas, *Using autocorrelations, CUSUMs and Runs Rules for control chart pattern recognition: An expert system approach.*

Venkatachalam, A. R., *A knowledge-based approach to design for manufacturability.*

MATHEMATICS

Lee, Yong-Hoon, *Ambrosetti-Prodi type results for periodic solutions of second order ordinary differential systems.*

Arizona

Arizona State University (2)

MATHEMATICS

Cole, George R., *Triangles all of whose sides and medians are rational.*

Penrice, Stephen G., *Techniques for coloring graphs with forbidden trees.*

University of Arizona (10)

APPLIED MATHEMATICS

Bernstein, Lisa J., *Quantum theories of self-localization.*

Crowe, Kathleen M., *A discrete size-structured competition model.*

Gooley, Theodore Alan, *Quantitative comparisons on statistical methods in image reconstruction.*

Jakobsen, Per Kristen, *Stability and instability of two laser models.*

Mazer, Arthur A., *Design and analysis of mixing machines.*

Stapleton, David P., *A technique for the analysis of the invariance of classical gauge field theory by means of functional equations.*

Su, Yu, *Mathematical theory and computer simulation of isoelectric focusing.*

Wu, Chuntao, *Percolation in half spaces and Markov fields on branching planes.*

MATHEMATICS

Adongo, Harun Paulo Kasera, *Isomorphism of automorphism groups of mixed modules over a complete discrete valuation ring.*

Lee, June Bok, *Integral solutions in arithmetic progression for elliptic curves.*

California

California Institute of Technology (10)

APPLIED MATHEMATICS

Hobson, Dana D., *Point vortex models for modon dynamics.*

Mudkavi, Vidyadhar Y., *Numerical studies of nonlinear axisymmetric waves on vortex filaments.*

Pham, Thu, *Numerical studies of incompressible Richtmyer-Meshkov instability in a stratified fluid.*

MATHEMATICS

Delatte, David Allen, *Nonstationary normal forms for Anosov diffeomorphisms and skew product transformations.*

Gursky, Matthew J., *Compactness of conformal metrics with integral bounds on curvature.*

Jakšić, Vojkan, *Solutions to some problems in mathematical physics.*

Mazorow, Moya Michelle, *Extremal problems in codes, finite sets, and geometries.*

Shih, Tanchu, *Bounds of fixed point ratios of permutation representations of $GL_n(q)$ and groups of genus zero.*

Yue, Chengbo, *Rigidity of three measure classes on the ideal boundary of manifolds of negative curvature.*

Zhang, Xiao-Dong, *On spectral properties of positive operators.*

Claremont Graduate School (2)

MATHEMATICS

Turner, Gregg H., *Spectral conditions for oscillations and stabilization of systems of differential equations with piecewise constant arguments.*

Velasco-Hernandez, Jorge Xicotencatl, *Models of Chagas' disease: Stability, thresholds and asymptotic behavior.*

Naval Postgraduate School (1)

OPERATIONS RESEARCH

Ressler, Richard, *An investigation of nonlinear controls and regression-adjusted estimators for variance reduction in computer simulation.*

Stanford University (23)

ENGINEERING-ECONOMIC SYSTEMS

Beider, Perry Collin, *All the good ones are taken: A search-theory analysis of multi-type marriage markets.*

Courand, Gregory Joseph, *Cooperation via justification-based consensus formation processes.*

de Klerk, Antonie Machiel, *Decision incentives in major systems acquisition.*

Hagen, Brian Wayne, *Constructing discrete marginal distributions via redundant probabilistic assessment.*

Matheson, David Earnest, *When should you reexamine your frame?*

Poh, Hean Lee, *A neural network approach for marketing strategies, research, and decision support.*

Shi, Xia, *Modeling the Chinese economy in a general equilibrium framework.*

MATHEMATICS

Chuaqui, Martin, *The Schwarzian derivative in Riemannian geometry and quasiconformal reflections in spheres.*

Dai, Jiangang, *Steady-state analysis of reflected Brownian motion.*

Lundelius, Rolf, *Asymptotics of the determinant of the Laplacian on hyperbolic surfaces of finite volume.*

Mo, Xiaokang, *Gauss maps and moduli spaces of minimal surfaces in Euclidean spaces.*

Mullins, David, *The generalized Casson invariant of two-field covers of the three-sphere and the Jones polynomial.*

Nagayama, Misao, *On valued commutative regular rings and Boolean algebras.*

Zhang, Dong, *New results on geometric variational problems.*

OPERATIONS RESEARCH

Andradóttер, Sigrún, *Stochastic optimization with applications to discrete event systems.*

Huang, Ying, *Asymptotic pencils of linear programs and Markov branching decision chains.*

Leichner, Stephanie Ann, *A strictly improving linear programming algorithm using least-squares subproblems.*

Munoz, David Fernando, *Cancellation methods in the analysis of simulation output.*

Nakayama, Marvin Kunio, *Simulation of highly reliable Markovian and non-Markovian systems.*

Nguyen, Phuong-Vien T., *Heavy traffic analysis of processing networks with parallel and sequential tasks.*

Schulz, Scott, *Bias reducing steady-state estimates for parallel simulation.*

Shahabuddin, Perwez, *Simulation and analysis of highly reliable systems.*

Sokkappa, Padmini R., *The cost-constrained traveling salesman problem.*

University of California, Berkeley (49)

BIOSTATISTICS

Nielsen, Jens P., *Kernel estimation of densities and hazards: A counting process approach.*

Parker, Jennifer D., *The probability of correctedness from the Poisson model of nearest neighbor distance and a multivariate analysis of benzene pharmacokinetics.*

Robinson, Laurence D., *The effects of covariate adjustment upon precision for some common generalized linear models.*

Shiboski, Stephen C., *Statistical analysis of HIV infectivity based on partner study data.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Chyu, Chiuh-cheng, *Computing probabilities for probabilistic influence diagrams.*

Cogez, Patrick Robert, *Managing uncertainty in release decisions for semiconductor fabrication: A fuzzy logic based approach.*

Makjamroen, Thanet, *The self-organizing list and processor problems under randomized policies.*

Racer, Michael James, *Coordinating inbound and outbound vehicle routes within a decentralized decision environment.*

Rhee, Jongtae, *A neural-net knowledge-based system with instant-based rules.*

MATHEMATICS

Bagarla, Juan P., *Definable forcing and regularity properties of projective sets of reals.*

Baxter, William Erik, *Chromatic framed link invariants and cabling.*

Behrend, Kai Achim, *The Lefschetz trace formula for the moduli stack in principal bundles.*

Bernier, David Patrick, *Quasicentral approximate units relative to normed ideals for the discrete Heisenberg group.*

Bonet, Maria Luisa, *The Lengths of propositional proofs and the deduction rule.*

Bor, Gil, *Non self-dual Yang-Mills fields.*

Brown, Alton Raymond, *An analytical test for chaos.*

Calhoun, William Cooper, *The lattice of ideals of recursively enumerable degrees.*

Chopp, David Layne, *Computing minimal surfaces via level set curvature flow.*

Despic, Mladen, *Automorphisms of radical convolution algebras.*

Feng, Yin Sun, *Stability analysis of some root-free or algorithms for symmetric tridiagonal matrices.*

Franco, Zachary Martin, *Diophantine approximation and the $qx + 1$ problem.*

Gokhman, Dmitry M., *Complex Hardy fields.*

Goldstern, Martin Robert, *Sets of reals and countable support iteration.*

Gonzalez-Dorrego, Maria del Rosario, *Curves on Kummer surfaces in p^3.*

Gonzalo, Jesus, *Large soap bubbles and isoperimetric regions in the product of Euclidean space with a closed manifold.*

Grzegorczyk, Iwona Maria, *Vector bundles on algebraic curves.*

Hammond, John Todd, *The lattice of sets recursively enumerable in an oracle.*

Ilmanen, Tom, *Motion of level sets and of variafolds by mean curvature.*

Jeong, Joohee, *On finitely decidable varieties.*

Kania-Bartoszynska, Joanna, *Examples of different 3-manifolds with the same invariants of Witten and Reshetikhin-Turaev.*

Kuperberg, Gregory John, *Invariants of links and 3-manifolds via multilinear algebra and Hopf algebras.*

Li, Yingchen, *Picard bundles and the Brill-Noether problem of higher rank.*

Liu, Zhu-shiu, *On the extended HR algorithm.*

Lopes, Helene Judith Nussenzveig, *An estimate on the Hausdorff dimension of a concentration set for the incompressible 2-D Euler equation.*

Lou, Zhong Ci, *Vortex approximations of the Navier-Stokes equations in a boundary layer.*

Lum, Robert, *Piecewise affine dynamics.*

McCammond, Jonathan Paul, *The word problem for Burnside semigroups: A positive solution for $a \geq 6$.*

McSwiggen, Patrick Dennis, *Invariant manifolds and infinitesimal foliations.*

Natarajan, Loki, *Unitary highest weight representations of certain infinite-dimensional Lie groups and Lie algebras.*

Patrick, George William, *Two axially symmetric coupled rigid bodies: Relative equilibria stability, bifurcations, and a momentum-preserving symplectic integrator.*

Qi, Anmin, *Three dimensional vortex methods for the analysis of wave propagation on vortex filaments.*

Ruan, Yongbin, *Gauge theory and its application to Riemannian geometry.*

Sawin, Stephen French, *Subfactors from quantum groups.*

Schweitzer, Laurence Britt, *Representations of dense subalgebras of C^*-algebras with applications to spectral invariance.*

Shepard, Marc, *The topology of shortest curves in surfaces.*

Shirman, Leon A., *Construction of smooth curves and surfaces from polyhedral models.*

Stein, Harvey Jess, *Singular morphisms, smoothness, and lifting lemmas.*

Warnow, Tandy Jo, *Combinatorial algorithms for constructing phylogenetic trees.*

Yang, Jian Li, *Adjoint spectrum of Anosov diffeomorphisms in logic and the methodology of science.*

University of California, Davis (8)

MATHEMATICS

Brodziak, Jon Kenton Tarsus, *Theoretical aspects of genetic stock identification.*

Hann, Kathleen Marie, *The average number of normals through a point in a convex body and a related Euler-type relationship.*

Kang, Wei, *Extended controller normal form, invariants and dynamic feedback linearization of nonlinear control systems.*

Savoye, Philip, *An analysis of the equation of a vibrating beam subject to elastic restoring and axial compressive forces.*

Vakilian, Ramin, *Application of number theory in the statistical mechanics of quasicrystals and existence and asymptotic properties of entire solutions of elliptic partial differential equations.*

Young, Robin Carl, *An extension of Glimm's method to third order in wave interaction.*

STATISTICS

Kvam, Paul Haakon, *Estimation based on ranked set samples.*

Prewitt, Kathryn Ann, *Weak convergence of Gaussian processes in nonparametric curve estimation.*

University of California, Irvine (3)

MATHEMATICS

Barry, Ronald, *Minimal and near-minimal resolution* IV *designs.*

DeBonis, Mark Jude, *Contributions to omega-stable groups.*

Margulies, Caryl Ann, *Existence of solutions to some semilinear equations.*

University of California, Los Angeles (26)

BIOSTATISTICS

Fine, Gil David, *Nonparametric estimation of the receiver operating characteristic curve.*

Hemyari, Parichehr, *Evaluating robustness of the quartiles of survival times, reliability, and regression coefficients when the distributional assumption is violated.*

Nisenbaum, Rosane, *Covariate measurement error in the exponential regression model.*

Rutter, Carolyn Ann, *A comparison of methods for the analysis of mapped rates.*

Wanek, Leslie Ann, *Multistage Markov modelling applied to malignant melanoma progression.*

MATHEMATICS

Bisch, Dietmar Herbert, *Subfactors, actions of groups and growth invariants.*

Butler, David, *Normal generation of vector bundles over a curve.*

Chow, Richard Tao-hwa, *Holomorphic motions on Riemann surfaces.*

Conley, Charles Henry, *Representations of finite length of semidirect product Lie groups.*

Dadarlat, Marius, *Homotopy invariants for operator algebras.*

Donat, Rosa, *Propagation of error into regions of nonlinear approximations to hyperbolic equations.*

Fatemi, Emad, *Numerical solution of electron and hole transport.*

Kitagawa, Koji, *On standard p-adic L-functions of families of cusp forms.*

Lafon, Frederic, *Filtering methods for the Hamilton-Jacobi equation and hyperbolic systems of conservation laws.*

Little, Richard E., *Manifolds of almost negative Ricci curvature.*

Liu, Xijian, *Infinite reversible nearest particle systems in inhomogeneous and random environments.*

McClanahan, Kevin Paul, *C*-algebras generated by elements of a unitary matrix.*

Radulescu, Florin, *Fundamental group for von Neumann algebras associated to free groups.*

Robins, Sinai, *Arithmetic properties of modular forms.*

Shors, Douglas, *Deforming reducible representations of knot groups in* SL2(C).

Soash, James Douglas, *Systems of independent Markov chains.*

Soong, Tien-Lun, *On the existence of an extremal function for J. Moser's inequality.*

Tsui, Waikin, *Domain decomposition of biharmonic and Navier-Stokes equation.*

White, Tad P., *The geometry of the outer space.*

Wu, Lixin, *Stability of difference approximations for initial boundary value problems.*

Yeung, Wing, *Essentially non-oscillatory method for Navier-Stokes type equations.*

University of California, Riverside (5)

MATHEMATICS

McMurran, Shawnee Lee, *Expansive functions and existence theorems for singular quasilinear differential equations.*

STATISTICS

Anderson, Dale, *Some time series models with non-additive structure.*

de Ruiz, Kaye, *A mathematical model for a paired comparison experiment on a continuum of response.*

Kemple, William, *Stratigraphic correlation as a constrained optimization problem.*

Yang, Su-Fen, *Economic design of joint* $\overline{X}$ *and R control charts: A Markov chain method.*

University of California, San Diego (10)

MATHEMATICS

Allen, Edward E., *On a conjecture of Procesi and a new basis of graded left regular representation.*

Celniker, Nancy Jeanne, *Combinatorial properties of finite, upper half-planes and an improvement on the Tutle polynomial for coloring grey groups.*

Garrett, Brett Taylor, *Euclidean and hyperbolic surfaces determined by circle parkings.*

Kelly, Colleen Lauerl, *A test of the Markov assumption in DNA sequence evolution and a generalization of the model to allow the sites to evolve to unequal rates.*

Ram, Arun, *Representation theory and character theory of centralizer algebras.*

Sethuraman, Bharath, *Construction of valued division algebras with applications to indecomposability and elementary abelian crossed products.*

Shick, Johnathan, *Quadratic forms over function fields of elliptic and hyperelliptic curves.*

Thomas, Carolyn Ann, *Extension of classical results in one complex variable to several complex variables.*

Velasquez, Elinor Laura, *The Radon transform on finite groups.*

Wahlen, Bruce Edward, *A non-parametric measure of independence.*

University of California, Santa Barbara (7)

MATHEMATICS

Chang, Shu-Chu, *Two-sided equivalence with respect to subgroups of the modular group.*

Lee, Cheng, *Approximating the averaging operator.*

Miranda, Hector Fernando, *G-Majorization, reflection groups and trace inequalities.*

Putnam, Thomas Craig, *Combinatorial Gray code and Hamiltonian circuits through certain Cayley graphs of the symmetric group.*

So, Wasin, *Exponential formulas and spectral indices.*

STATISTICS AND APPLIED PROBABILITY

Chaturvedi, Prachi, *Best approximations in insurance mathematics with respect to stop-loss distances.*

Wan, Xinyuan, *Inference for a semi parametric problem.*

University of California, Santa Cruz (2)

MATHEMATICS

Fu, Xiang, *Asymptotics of Toeplitz matrices with symbols of bounded variation.*

Robinson, Stephen Bruce, *Semilinear elliptic boundary value problems.*

University of Southern California (1)

MATHEMATICS

Angelone, Maria E., *Jones index for rings.*

Colorado

Colorado State University (2)

STATISTICS

Khodadadi, Ahmad, *Studies on a general distribution and censoring procedure in life testing.*

Li, Junfang, *Sequential and optimal single stage factorial designs, with industrial applications.*

University of Colorado, Denver (4)

MATHEMATICS

Bradford, Bert Larue, *Fast Fourier transforms for direct solution of Poisson's equation.*

Henson, Van Emden, *Fourier methods of image reconstruction.*

Lett, Gregory Scott, *Domain decomposition preconditioners for thin rectangular p-version finite elements.*

Rasmussen, Craig W., *Interval competition graphs of symmetric digraphs and two-step graphs of trees.*

University of Colorado, Boulder (1)

APPLIED MATHEMATICS

Jones, Fred Byron, *Property inherited by the two-dimensional unfoldings of one-dimensional.*

Connecticut

University of Connecticut (10)

MATHEMATICS

Boman, Margaret Ann, *A feasible algorithm to determine whether a 3-manifold is Haken.*

Budney, Paul, *Some applications of the P-X dual.*

Chang, Maoli, *Polyharmonic cardinal Hermite spline interpolation.*

Her, Hyeyoung, *Multiple periodic solutions in a hanging cable with periodic forcing.*

Her, Min, *Multilinear measure theory and its applications.*

Hu, Shu-An, *The numerical range of operators.*

Liu, Guangyu, *Some problems about joint ergodicity and uniform distributions.*

Tsatsomeros, Michael, *Reachability of nonnegative and symbiotic states for linear differential systems.*

Vinel, Gerard Francois, *On Lie triple supersystems and symmetric supermanifolds.*

Zou, Zhiming, *Some results on jumps of splittings of recursively enumerable sets.*

Wesleyan University (4)

MATHEMATICS

Hasfura-Buenaga, Julio Roberto, *The equivalence theorem for Z^d-actions of positive entropy.*

Johann, Patricia, *Complete sets of transformations for unification problems.*

Kizanis, Ann, *Epicompletions of archimedean lattice-ordered groups.*

Trigos-Arrieta, Francisco Javier, *Pseudocompactness on groups.*

Yale University (6)

MATHEMATICS

Cockburn, Sally Patricia, *The γ-filtration on the representation ring of a p-group.*

Curtis-Budka, Cynthia Louise, *A Casson-type invariant counting SO(3)-representations.*

Dartnell, Pablo Ricardo, *On the homology of groups of jets.*

Gonzalez, Maria Jose, *Uniformly perfect sets, Green functions, and fundamental domains.*

Laeng, Enrico, *Analysis of orthogonal expansions of functions.*

STATISTICS

Sherman, Robert P., *U-processes and semiparametric estimation.*

Delaware

University of Delaware (2)

MATHEMATICAL SCIENCES

Hernandez, Jorge Eliezer, *Global invertibility in smooth and nonsmooth analysis.*

Mehrotra, Devan, *Circularity diagnostics for repeated measures designs.*

District of Columbia

American University (3)

MATHEMATICS AND STATISTICS

Awartani, Nehaya, *The asymptotic behavior of linear regression M-estimators for censored data.*

Chen, Ling, *Estimation of the mean of positively skewed distributions to estimation of exposure to contaminated soils.*

Winter, June Frances, *Art and mathematics: Enhancing achievement through curricular design.*

George Washington University (6)

OPERATIONS RESEARCH

Abel, Patricia, *Information and the design of life tests.*

Balana, Arturo, *Stochastic monotonicity and comparison: Applications to provisioning in nonstationary repairable-item inventory systems.*

Boukari, Djamel, *Nonalgorithmic sensitivity analysis and bounds on the parameters of linear and nonlinear programs.*

Hamed, Ammar Salah, *Calculation of bounds on variables and underestimating convex functions for nonconvex functions.*

Palocsay, Susan, *Topics in nonconvex fractional programming.*

STATISTICS, COMPUTER AND INFORMATION SYSTEMS

Palish, Yuko, *K-group group multi-variate rank test and related estimators of group differences.*

Florida

Florida State University (6)

MATHEMATICS

Choi, Junesang, *Determinants of Laplacians and multiple gamma functions.*

Raspopovic, Pedja, *Incompressible surfaces in punctured Kleinbottle bundles.*

Tajdari van der, Mohammad Sina, *Singular complex periodic solutions of van der Pol's equation of uniform approximations for the solution of Lagerstrom's model problem.*

STATISTICS

Kim, Ji-Hyun, *Conditional bootstrap methods for censored data.*

Norris, James, *Estimation of the number of classes of objects through presence/absence data.*

Young, Thomas, *A new family of survival functions derived from a general cumulative damage threshold crossing model for evolving structural systems of improving components with biomedical and accelerated life testing applications.*

University of Florida (4)

INDUSTRIAL AND SYSTEMS ENGINEERING

Uzsoy, Reha, *Production scheduling algorithms for semiconductor test operations.*

MATHEMATICS

Fujimoto, Ichiro, *CP-convexity and its applications.*

Manseur, Zohra Z., *Decomposition and inversion of convolution operators.*

McMillan, Timothy, *Invariants of antisymmetric tensors.*

University of Miami (1)

MATHEMATICS AND COMPUTER SCIENCE

Siler, John, *Connecting the student and the computer: Development and implementation of a lab component for calculus* I.

University of South Florida (5)

MATHEMATICS

Guan, Zhengyuan, *On operators of monotone type in Banach spaces.*

Kaplan, David, *Applications of nonlinear analysis to the control of space with preassigned responses.*

Pan, Kuochen Guoquan, *Some extremal problems in approximation theory.*

Shim, Jaedong, *Optimal control problems in delay differential equations.*

Weng, Xinlong, *Approximation methods for solving nonlinear equations in Banach spaces.*

Georgia

Emory University (2)

MATHEMATICS AND COMPUTER SCIENCE

Fletcher, Raymond, *Unique path property digraphs.*

Gersdorff, Graham, *Singular nonlinear second order boundary value problems.*

Georgia Institute of Technology (1)

MATHEMATICS

Postell, Floyd Vince, *High order finite difference methods.*

University of Georgia (4)

MATHEMATICS

Ding, Li-Feng, *Pairs of separating vectors and reflexivity.*

Sligar, John Christopher, *On the minimal v-degree of the generalized Jones polynomial.*

STATISTICS

Su, Kuoliang, *Law of large numbers and failure rate function estimation.*

Wen, Miin-Jye, *Single-stage multiple comparison procedures under heteroscedasticity.*

Hawaii

University of Hawaii (2)

MATHEMATICS

Zhou, Chiping, *Maximum principles and Liouville theorems for elliptic partial differential equations.*

PUBLIC HEALTH SCIENCES

Khan, Mahmudul, *Theoretical approach to the problem of record linkage: Maximizing the use of blocking.*

Idaho

Idaho State University (1)

MATHEMATICS

Siler, Jospeh R., *Reflectors matrix-valued inner products, and partial orders of Hermitian-preserving linear transformations.*

Illinois

Illinois Institute of Technology (1)

MATHEMATICS

Maslanka, David J., *A geometrical representation of the sets of pure states for quantum logics.*

Illinois State University (1)

MATHEMATICS

Lenney, Stephen, *G.F.B. Riemann and Fourier series.*

Northern Illinois University (1)

MATHEMATICAL SCIENCES

Dever, Mary Beth, *Moebius transformations in several dimensions.*

Northwestern University (3)

MATHEMATICS

Dietz, Jill, *Stable splittings of classifying spaces of metacyclic p-groups.*

Haunsperger, Deanna, *Projection and aggregation paradoxes in nonparametric statistical tests.*

Krishnamurti, Deepa, *Resource allocation mechanisms for finite sets.*

Southern Illinois University, Carbondale (3)

MATHEMATICS

Lin, Cantian, *Some properties of Hadamard matrices.*

Sarker, Tejendra N., *Numerical computation of the solution to certain exterior Dirichlet problems having singular points and edges.*

Wang, Tingxiu, *Stability in abstract functional differential equations.*

University of Chicago (12)

MATHEMATICS

Bennett, Curtis, *Affine Λ-buildings.*

Fisher, Tony Jared, *Weight operators and grove geometries.*

Goldstein, Daniel, *Hecke algebra isomorphisms for tamely ramified characters.*

Hui, Kin-Ming, *A Fatou theorem for the solution of the heat equation at the corner points of a cylinder and some Fatou theorems for the generalized porous medium and fast diffusion equations.*

Jantzen, Christopher, *Degenerate principal series for symplectic groups.*

Kumabe, Masahiro, *On the Turing degrees of generic sets.*

Manhi, Antonella, *Dirichlet and Neumann boundary value problems for Yang-Mills connections.*

Wicks, John, *Calculating equivariant characteristic classes.*

STATISTICS

Chappell, Richard, *Collection and analysis of truncated censored data.*

Inclan, Carla H., *Retrospective detection of sudden changes of variance in time series.*

Liu, Jun, *Correlation structure and convergence rate of the Gibbs sampler.*

Niu, Xufeng, *Space-time arma models for satellite ozone data.*

University of Illinois, Chicago (8)

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

Bultman, William, *Topics in the theory of machine learning and neural computing.*

Gupta, Ajay, *On the complexity of computation and learning in neural networks.*

Hou, Xiang-dong, *Covering radius of error-correcting codes.*

Mbateng, Gaston Ngantcheu, *Optimum selection procedures for linear regression model.*

Ramachandran, Mohan, *Type II index theorems for manifolds with boundary.*

Sompolski, Walter Robert, *The second case of Fermat's Last Theorem for fixed irregular prime exponents.*

Xu, YiJing, *Topological classification of weakly elliptic complete intersection singularities.*

Zadori, Laszlo, *Posets, zigzags and monotone clones.*

University of Illinois, Urbana-Champaign (13)

MATHEMATICS

Amir, Abdelmadjid, *Strong concergence to diffusion processes with application to queueing theory.*

Balmaceda, Jose, *Multiplicity-free permutation representations of the alternating groups.*

Chiappari, Stephen Anthony, *Proper holomorphic mappings of positive codimension in several complex variables.*

Feuerman, Kenneth, *The Hanna-Neumann conjecture: A flow detection approach.*

Kezdy, Andre, *Studies of connectivity.*

Kim, Hobum, *Geometrics and dynamical properties of Riemannian foliations.*

McEachin, Raymond, *Analysis of an inequality concerning perturbation of self-adjoining operators.*

Rogers, Allen Dale, *Theory and applications of a functional from metric geometry.*

Sanders, Robin, *Graphs on which dihedral, quaternion and abelian groups act vertex and/or edge transitively and applications to tensor products.*

Scofield, Paul David, *Symplectic and complex foliations.*

Seyfried, Michael, *The zeta function of an order in a general algebra.*

Wenzel, Christian, *Classification of all parabolic subgroup schemes of a semi-simple linear algebraic group over an algebraically closed field of positive characteristic.*

Zhang, Liang-Cheng, *Some important continued fractions of Ramanujan and Selberg.*

Indiana

Indiana University (2)

MATHEMATICS

Promislow, Keith, *Construction and application of approximate inertial manifolds for the Ginzburg-Landau partial differential equation.*

Zou, Yi-Ming, *Structure of some representations of quantum groups.*

Purdue University (15)

MATHEMATICS

Ban, Chun-sheng, *Whitney stratification, equisingular family and the auréole of quasi-ordinary singularity.*

Benjamin, Chen-Farng Liang, *Fixed point indices, transfers, and path fields.*

Cho, Sanghyun, *On the extension of complex structures on compact pseudoconvex complex manifolds.*

Dwyer, David John, *The spectrum of the complex Laplacian for N-invariant pseudo-Kahlerian structures on C^n*

Hong, Bum Il, *High-order regularity and approximation for Hamilton-Jacobi equations.*

Huang, Weiming, *Differential invariant properties of analytic spaces.*

Li, Wei, *Coverings of algebraic varieties and the tame version of Zariski's Conjecture.*

Oh, Kyung-Ho, *On topology of quasi-ordinary singularities.*

Sastry, Pramathanath, *Regular differentials and relative duality.*

Xu, Jianming, *On the lifetime of conditioned Brownian motion.*

STATISTICS

Bose, Sudip, *Bayesian robustness with shape-constrained priors and mixture priors.*

Huang, Su-Yun, *Nonparametric density estimation by spline projection kernels.*

Su, Yeong-Tzay, *A sequential test for Markov dependence.*

Tan, Ming, *Shrinkage, GMANOVA, control varieties and their applications.*

Ye, Keying, *Noninformative priors in Bayesian analysis.*

University of Notre Dame (7)

MATHEMATICS

Bardis, Emmanuel Theodore, *The defect relation for meromorphic maps defined on covering parabolic manifolds.*

Borberly, Albert, *The Dirichlet problem at infinity and vanishing curved manifolds.*

Dennee, Paul, *Constant mean curvature cylinders with embedded ends.*

Niebergall, Ross, *Dupin hypersurfaces in $\mathbb{R}^5$*

O'Shea, Julann, *A defect relation for slowly moving target hypersurfaces.*

Pilkington, Anne B., *Normal subgroups of 4-dimensional hyperbolic orthogonal groups over arithmetic domains.*

Szoke, Robert, *Monge-Ampère models.*

Iowa

Iowa State University (16)

MATHEMATICS

Deng, Keng, *The asymptotic behavior of solutions of some nonlinear initial-boundary value problems of parabolic type.*

Gaitan, Hernando, *About quasivarieties of p-algebras and Wajsberg algebras.*

Vinayagamoorthy, Manickavasagar, *Inversion of multi-dimensional Laplace transform-analytical and numerical techniques.*

Yun, Jae-Heon, *Numerical solution for the minimum norm solution to the first kind integral equation with a special kernel and efficient implementations of the Cholesky factorization algorithm on the vector and parallel supercomputers.*

STATISTICS

Biele, Jonathan, *Sample-size-optimal Bayesian schemes in sequential sampling.*

Carley, Michael Ray, *Knowledge-based support systems for statistical software.*

Freire, Clarice Azevedo de Luna, *Applications of resampling methods to the estimation of ecological diversity.*

Homblé, Patrick René, *On the stability of linear stochastic difference equations.*

Li, Seung-Chun, *Some admissible nonparametric tests and a minimal complete class theorem.*

Mundfrom, Daniel James, *Estimating course difficulty.*

Nusser, Sarah Margaret, *Failure time analyses for data collected from independent groups of correlated individuals.*

Park, Heon Jin, *Alternative estimators of the parameters of the autoregressive process.*

Rathbun, Stephen Lynn, *Estimation and statistical inference for space-time point processes.*

Sarkar, Sahadeb, *Nonlinear least squares estimators with differential rates of convergence.*

Shin, Dongwan, *Estimation for the autoregressive moving average model with a unit root.*

Vander Wiel, Scott Alan, *Some aspects of monitoring and control of univariate dynamic systems.*

University of Iowa (12)

APPLIED MATHEMATICAL SCIENCES

Bernatz, Richard, *Development of the finite analytic method for turbulent forced and free convection.*

MATHEMATICS

Catepillan-Clares, Ximena, *Canonically Koszul invertible, Koszul invertible, and quasinormal pairs of operators on Hilbert space.*

Chien, David, *Piecewise polynomial collocation for integral equations on surfaces in three dimensions.*

Espina, Carlos, *Stability of equilibria in some epidemic models.*

Ha, Kyung Soon Jung, *On simple Lie algebras of characteristic p and l-filtrations.*

Lee, Hosae, *Multigrid method for integral equations.*

Levin, Rebecca, *Generalizations of GCD-domains and related topics.*

Olivares, Patricio, *Exactness at the middle stage of the Koszul complex of commuting pairs of Hilbert space operators, with applications to 2-variable weighted shifts and triangular pairs.*

Zhao, Pei-Yi, *Invariant links for knotted graphs in 3-space.*

STATISTICS

Anderson-Sprecher, Richard, *The statistical analysis of wildlife radio-tracking data.*

Galbiati-Riesco, Jorge Mauricio, *Estimation of choice models under endogenous/exogenous stratification.*

Lee, Chang Soo, *Time series models for the credibility estimation of insurance premiums.*

Kansas

Kansas State University (6)

MATHEMATICS

Ghoreishi, Afshin, *Positive solutions of interacting models in a heterogeneous environment under mixed boundary conditions.*

Logan, Roger, *A study of a two-species competing interaction model in mathematical biology.*

STATISTICS

Hwang, Ching-Chang, *Hypothesis testing in linear models hewing nested error structure.*

Neogi, Debashis, *Stochastic, fractal, and chaotic modeling of multiphase flow systems.*

Ogunyeni, Theophilus Olabide, *Simplified two-stage estimators and a Bayes type modification of maximum quasi-likelihood estimates.*

Tashtoush, Suleiman, *Small sample power of aligned rank transform tests in fractorial experimental design.*

Kentucky

University of Kentucky (6)

MATHEMATICS

Branner, Frank, *On the projective functor.*

Buskirk, Robert, *A universal completely regular curve and inverse limits of locally connected curves.*

Glunt, William, *An alternating projection method for linear convex programming problems.*

Yeomans, Charles, *Quintic forms over finite and local fields.*

STATISTICS

Fai, Hrong-Tai, *Comparison of exact and approximate tests of hypotheses concerning the first-stage factor in unbalanced nested designs and the main plot factor in split-plot experiments with missing data.*

Shen, Pao-Sheng, *The study of efficiency of some planned unbalanced designs for estimation of quantitative genetic parameters.*

Louisiana

Louisiana State University (6)

MATHEMATICS

Beaulieu, Patricia Wright, *A new construction of subgroups inducing isomorphic representation.*

Chen, Sheng, *Constructing isospectral but non-isometric Riemannian manifolds.*

Gu, Diana, *Exterior vertices in graphs and realization of plurality preference digraphs.*

Gubser, Bradley, *Problems in matroid theory.*

Pfeffer, Carolyn, *Harmonic analysis on solvmanifolds.*

Stuart, Donna, *A new conditions for arithmetic equivalence.*

Tulane University (7)

MATHEMATICS

Calzada, Maria Eugenia, *A combustion model for incompressible flows.*

Huth, Michael Reiner, *Projection-stable and zero dimensional domains.*

Li, Xuefeng, *A compressible vortex method for viscous gas dynamics and its numerical implementations.*

Segalla, Gabriella, *Approximation theorems for linear integro-differential equations in Banach spaces.*

Song, Yu, *Numerical methods for turbulent combustion problems.*

Tran, Hong Thi, *Boundary layer phenomena for a turbulent model.*

Villarreal, Karen Mary Zeringue, *Fibered products of homogeneous continua.*

University of Southwestern Louisiana (7)

MATHEMATICS

Bourque, Anthony Keith, *Matrices associated with classes of arithmetical functions.*

Cobb, Shannon Sherlita, *Quenching for parabolic mixed boundary-value problems.*

Fung, Tai-Wai, *Dead cores and quenching for semilinear reaction-diffusion systems.*

Hu, Chenyi, *Optimal preconditioners for the interval Newton method.*

Vincent, Diana J., *An inward harmonic continuation problem with biomedical application.*

STATISTICS

Noorossana, Rassoul, *An imperial Bayes approach to statistical process control.*

Walsh, Dennis, *A bounded distribution with Poisson properties.*

Maryland

Johns Hopkins University (15)

BIOSTATISTICS

Karim, M. Rezaul, *Generalized linear models with random effects.*

Law, Chun-Chung, *Statistical methods for the analysis of interval censored data.*

Liu, Xin-Hua, *Estimating functions in regression models with error-in-covariates.*

MATHEMATICAL SCIENCES

Appel, Martin J., *AB percolation.*

Busch, Ingrid K., *Vehicle routing on acyclic networks.*

Kosansky, Alan J., *Preparation cost structures in inspection games.*

Rangaraj, Narayan, *Nonsmooth optimization: Algorithms and applications.*

Steinsaltz, Steven J., *Scheduling jobs on a machine subject to weardown.*

Trenk, Ann N., *Generalized perfect graphs.*

Wang, Zhiping, *Continuation methods for solving the variational inequality and complementarity problems.*

MATHEMATICS

Furusawa, Masaaki, *On Fourier coefficients of Eisenstein series on* GO(5, 2).

Kramer, Richard, *The periodic Hopf ring of connective Morava K-theory.*

Tanabe, Michimasa, *On certain periodic cohomologies of Chevalley groups.*

Yao, Dongyuan, *Higher algebraic K-theory of admissible Abelian categories and localization theorems.*

Zhou, Qien, *The homology of the double loop space of the Thom space* MU(2).

University of Maryland, Baltimore (2)

MATHEMATICS AND STATISTICS

Abbad, Mohammed, *Perturbation and stability theory for Markov control problems.*

Shyong, Wen-Jong, *Homogenization and symmetry in perforated elastic materials.*

University of Maryland, College Park (23)

MATHEMATICS

Chen, Sy-Mien, *Robust tests in statistical quality control.*

Clemons, Curtis, *Uniqueness results of semilinear elliptic equations.*

Faulkenberry, Richard, *On some interpolation problems for rational matrix-valued functions.*

Fletcher, Charles, *Multiscale periodic homogenization of certain elliptic equations using viscosity solution methods.*

Heller, William Harold, *Frames of exponentials and applications.*

Heyman, Robert, *Interpolation of entire functions—infinite order.*

Hugger, Jens, *Computational aspects and adaptive solution methods in the finite element method for non-linear, parametrized problems.*

Kapitula, Todd, *Stability of travelling waves with applications to Ginzburg-Landau equations.*

Karlovitz, Max, *Some solutions to overdetermined boundary value problems on subdomains of spheres.*

Kelly, James, *Confidentiality protection in two and three-dimensional tables.*

Koutsoukos, Antonis, *Probabilities of moderate and large deviations of test statistics and estimators in the presence of nuisance parameters.*

Lakey, Joseph David, *Weighted norm inequalities for the Fourier transform.*

Lee, In-Ja Baik, *A numerical treatment of generalized eigenvalue problems for Sturm-Liouville equations.*

Martin, Donald, *Estimation of the period of periodically correlated random sequences.*

McGowan, Jill F., *Lower bounds on the diameters of space forms.*

Miner, Robert Roland, *Affine manifolds with dilations.*

Rivera, William, *Discrete dynamical systems modeled by difference equations with applications to digital filters and neural networks.*

Sowers, Richard, *New asymptotic results for stochastic partial differential equations.*

Stietz, Philip, *Automorphisms of stable structures.*

Sweet, William, *The metaplectic case of the Weil-Siegel formula.*

Takagi de Cristoforis, Masako, *The Stone-Weierstrass property in semi-simple commutative branch algebras.*

Trivedi, Hiren, *Development of manpower planning models with known target size.*

Tsuchiya, Takuya, *A priori and a posteriori error estimates of finite element solutions of parametrized nonlinear equations.*

Massachusetts

Boston University (7)

MATHEMATICS

Brown, John, *Analysis of a model of a sigma-delta modulator with an arbitrary input signal.*

Ramaswamy, Ratna, *Techniques for analyzing ordinal scaled data.*

Sanchez-Morgado, Hector, *Lefschetz formulas for Anosov flows.*

Turpin, Mark, *Rotation number properties of a class of annulus homeomorphisms with an invariant indecomposable cofrontier.*

Walsh, James, *Rotation vectors for maps and flows on compact surfaces.*

Whalen, Edward, *The asymptotic distribution of magnitude trimmed sums and related results.*

Yu Kong, Wen Yuan, *A general procedure for the specification, estimation, and graphical presentations of the hazard regression model.*

Brandeis University (6)

MATHEMATICS

Boden, Hans, *Representations of orbifold groups and parabolic bundles.*

Fong, Lung-Ying, *Studies on the degeneration of algebraic curves.*

Hughes, James, *Peripheral link-homotopy invariants.*

Kao, Shu-Jung, *On values of Gauss maps of complete minimal surfaces on annular ends.*

Lam, Ngau, *A study of the geometry of algebraic curves and determinantal varieties.*

Wu, Bing-Le, *Isoparametric submanifolds of Lorentzian spaces.*

Harvard University (27)

APPLIED SCIENCES

Beaver, Donald R., *Security, fault-tolerance, and communication complexity for distributed systems.*

Faybusovich, Leonid, *Dynamical systems that solve eigenvalue and linear programming problems.*

Feigin, Gerald E., *Comparison methods for scheduling control of multiclass single server queues.*

Hwang, Ten-Lee, *Integrating visions modules for moving edge analysis.*

Keeler, Kenneth C., *Map representations and optimal encoding for image segmentation.*

Kochhar, Sandeep, *Cooperative computer-aided design: A paradigm for automating the design and modeling of graphical objects.*

Lee, Morris, *Moment methods for recovering affine transformation in computer vision.*

Lyuu, Yuh-Dauh, *An information dispersal approach to issues in parallel processing.*

Marks, Joseph W., *Automating the design of network diagrams.*

Nitzberg, Mark, *Depth from overlap.*

Nowlin, William C., *Tactile sensing with compliant manipulators.*

Park, Frank C., *The optimal kinematic design of mechanisms.*

Sistare, Steven J., *A graphical editor for 3-dimensional constraint-based geometric modeling.*

Tam, Va-on, *Transaction management in data migration systems.*

Tsantilas, Athanasios, *Communication issues in parallel computation.*

MATHEMATICS

Abramovich, Dan, *Subvarieties of abelian varieties and of Jacobians of curves.*

Aitken, Wayne, *An arithmetic Riemann-Roch theorem for singular arithmetic surfaces.*

Burnol, Jean-François, *Weierstrass points on arithmetic surfaces.*

Darmon, Henri, *Refined class number formulas for derivatives of L-series.*

Frenkel, Edward, *Affine Kac-Moody algebras at the critical level and quantum Drinfeld-Sokolov reduction.*

McKernan, James, *On the hyperplane sections of a variety in projective space.*

Ramsay, Keith, *Power-free values of polynomials.*

Schwartz, Andrew D., *Igusa towers over Hilbert modular surfaces.*

Spencer, Philip, *Yang-Mills connections with asymptotically constant curvature.*

STATISTICS

Belin, Thomas Richard, *Using mixture models to calibrate error rates in record-linkage procedures, with application to computer matching for census undercount estimation.*

Brown, Constance Marie, *Assessing association within a bivariate time series.*

Meng, Xiao-Li, *Towards complete results for some incomplete-data problems.*

Massachusetts Institute of Technology (34)

OPERATIONS RESEARCH

Ballman, Karla V., *Cost-effectiveness of smart traffic signals.*

Gau, Shiow-Hwa, *Server management in queueing systems.*

Goemans, Michel X., *Analysis of linear programming relaxations for a class of connectivity problems.*

Nakazato, Daisuke, *Transient distributional results in queues with applications to queueing networks.*

Richetta, Octavio, *Ground holding strategies for air traffic control under uncertainty.*

van Ryzin, Garrett, *Stochastic and dynamic vehicle routing in Euclidean service regions.*

Venkatakrishnan, C. S., *Analysis and optimization of terminal area air traffic control operations.*

MATHEMATICS

Biedrzycki, Witold R., *Spinors over a cone Dirac operator and representations of* Spin (4,4).

Callejas-Bedregal, Roberto, *Algebraic treatment of the Whitney conditions.*

Chen, William Y. C., *On the combinatorics of plethysm.*

Duval, Arthur M., *Simplicial posets: f-vectors and free resolutions.*

Edidin, Dan S., *Brill-Noether theory in codimension-two.*

Grigni, Michelangelo, *Structure in monotone complexity.*

Grossberg, Michael D., *Complete integrability and geometrically induced representations.*

Hahnfeldt, Philip J., *The suitability and formulation of a continuous-time, Markov chain approach to cellular DNA radiation damage and repair.*

Hansen, Mark D., *Results in computational geometry: Geometric embeddings and query-retrieval problems.*

Hu, Yi, *The geometry and topology of quotient varieties.*

Iyer, Renganathan G., *Modular and conformal invariance constraints in the representation theory of super-affine algebras.*

Mascarenhas, Walter Figueiredo, *On the convergence of the Jacobi method for arbitrary orderings.*

Másson, Gísli, *Rings of differential operators and Étale homomorphisms.*

Palmieri, John H., *A chromatic spectral sequence to study* Ext *over the Steenrod algebra.*

Pedersen, Jan, *Renormalization, singular currents, and representations of infinite dimensional groups on quantized fields.*

Piazza, Paolo, *K-theory and index theory on manifolds with boundary.*

Schwabe, Eric J., *Efficient embeddings and simulations for hypercubic networks.*

Thompson, Alan A., *Sobolev estimates for singular radon transforms.*

Wang, Frank Y. H., *Conductors of fields arising from Stark's conjecture.*

West, Julian, *Permutations with forbidden subsequences; and, stack-sortable permutation.*

Wu, Peiru, *A singularity method for sedimentation and shear flow of suspensions.*

Wylie, Dorshka C., *Condensation in a higher core model.*

Yang, Bo-Yin, *Two enumeration problems about Aztec diamonds.*

Yang, Julia S., *Symmetric functions, plethysm, and enumeration.*

Yavin, David, *The intersection homology with twisted coefficients of toric varieties.*

Zhang, Jian James, *Theory of quantum groups.*

Zhou, Yifan, *Nonlinear instability of three dimensional waves on shear flows.*

Northeastern University (6)

MATHEMATICS

Bassiakos, Yiannis, *The validity of the bootstrap in the two-sample problem with right censoring.*

Fang, Guangxiong, *Stability and instability of open coverings.*

Halverson, Kimberly J., *Multiple recurrence, alpha type, and sequences of integers for transformations with infinite invariant measure.*

Ji, Lizhen, *The spectral degeneration for hyperbolic Riemann surfaces.*

Kui, Johnny, *Analysis of neural networks for pattern recognition and associative memory.*

Piscitelle, Louis, *Nested center manifolds for a set of weather equations.*

Tufts University (1)

MATHEMATICS

Hwang, Eunmi C., *The number of projective representations of a finite group over an arbitrary field.*

University of Massachusetts, Amherst (9)

MATHEMATICS AND STATISTICS

Fuller, Mark, *Investigations of $Q_k(\lambda)$: Some notions of normality for filters of partitions.*

Morris, Brian C., *Variational study of interstellar magnetic gas clouds: Theory, modeling, and computation.*

Olubummo, Yewande, *Measures on empirical logics and the properties of their associated dual Banach spaces.*

Tang, Ding Yi, *Compact Lie group actions and total mean curvatures of irreducible symmetric subspaces.*

Wang, Kongming, *Limit theorems and parameter estimation for the Q-state Curie-Weiss-Potts model.*

Wang, Sheng, *Internal cnoidal waves in continuously stratified fluids.*

Xu, Zhong-Ling, *Polynomial families with multilinear uncertainties.*

Zalamea, Fernando, *Axiomatic enumeration and parametrization: A category-theoretic approach.*

Zang, Xin-Min, *Geometry of spherical minimal submanifolds.*

Michigan

Michigan State University (10)

MATHEMATICS

Cuckovic, Zeljko, *Commutants of Toeplitz operators on the Bergman space.*

Ding, Jiu, *Finite approximations of Frobenius-Perron operators.*

Gu, Dangsheng, *Some operators and Carleson measures on weighted norm spaces.*

Nah, Young-Chae, *Dirichlet spaces on finitely connected domains.*

Wang, Xiaoshen, *Homotopy methods for solving deficient polynomial systems.*

STATISTICS AND PROBABILITY

Andhivarothai, Nupun, *Sufficiency in the presence of nuisance parameters.*

Kinateder, Kimberly, *Strong Markov properties for Markov random fields.*

Mashayekhi, Mostafa, *Stability of symmetrized probabilities and compact equivariant decisions.*

Vasudaven, Mangalam, *Weak convergence of standarized Kaplan-Meier process in L^2 space.*

Zhang, Sixiang, *Markov properties of measure-indexed Gaussian random fields.*

University of Michigan, Ann Arbor (37)

BIOSTATISTICS

Lee, Seungyeoun, *Testing for and adjusting for dependent censoring in survival analysis.*

Park, Taesung, *Estimation of the nonresponse models for categorical data.*

Petroni, Gina, *A class of two-sample test statistics for stochastically ordered distribution functions with interval censored data.*

Schmaltz, Stephen, *Inverse nonlinear estimation in the presence of measurement error.*

Sereika, Susan, *Techniques for analyzing collinear censored data.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Al-Sultan, Khaled, *Nearest point problems: Theory and algorithms.*

Arantes, Jose, *Resolution of degeneracy in generalized networks and penalty methods for linear programs.*

Ben Kheder, Nejib, *Economic lot-sizing in just-in-time procurement systems.*

Bourland, Karla, *Production planning and control for the stochastic economic lot scheduling problem.*

Brown, Matthew, *A mean-variance serial replacement decision model.*

Cho, Myeon-Sig, *Design and performance analysis of trip-based material handling systems in manufacturing.*

Hahm, Juho, *Economic lot production and delivery scheduling problem.*

Hsiao, Hongwei, *Posture preferences and postural behavior during static, seated, visual and manual tasks.*

Kim, Deok-Soo, *Cones on Bezier curves and surfaces.*

Palmiter, Susan, *Use of animated graphical instructions to present procedural instruction.*

Park, Yunsun, *Average optimality in infinite horizon optimization.*

Rim, Suk-Chul, *Circular layout problems in manufacturing systems.*

Saldana, Norka, *Designed evaluation of a computer system operated by the workforce for the collection of perceived musculoskeletal discomfort: A tool for surveillance.*

Ulin, Sheryl, *Development of guidelines for the use of powered hand tools using psychophysical data.*

Yang, Kai, *New iterative methods for linear inequalities.*

MATHEMATICS

Andreev, Valentin V., *The Poincare inequality: A necessary and sufficient condition.*

Chun, Hyesook, *Hilbert series for graded quotient rings of 2-forms.*

Chun, Sungki, *Weak convergence of zero measures of orthogonal polynomials in the case of a thin weight measure.*

Corson, Jon M., *Thesis in combinatorial group theory.*

Ghamsari, Manouchehr, *Extension domains.*

Kay, Leslie D., *The Kobayashi-Royden metric for ellipsoids and perturbations of the ball.*

Kim, Hoil, *Stable vector bundles on Enriques surfaces.*

Lee, Jong Bum, *Generalized spherical space forms.*

Li, Wing Suet, *On polynomially bounded operators.*

Li, Zhongyan, *On spherical CR manifolds with positive Webster scalar curvature.*

Lou, Yu-Cai, *Constructions and 3-deformations of 2-polyhedra and group presentations.*

Pan, Yifei, *Proper holomorphic mappings in C^N*

Seidel, Roger R., *Slowly decreasing functions and closed ideals.*

Soderborg, Nathan R., *Quasiregular mappings and Royden algebras.*

Stanoyevitch, Alexander, *Geometry of Poincare domains.*

Wang, Mei, *Local limit theorems and occupation times for perturbed random walks.*

STATISTICS

Sarkar, Jyotirmoy, *Bandit problems with covariates: Sequential allocation of experiments.*

Wayne State University (8)

MATHEMATICS

Chen, Xu-Ming, *Groups related to generalized quadrangles.*

Chen, Zhi-Hong, *Reductions of graphs and spanning Euclidean subgraphs.*

Jeon, Tae-Il, *Limit theorems for nonlinear vector functionals of vector Gaussian processes.*

Jiang, Jing-Lin, *Existence and regularity of stochastic partial differential equations in Holder spaces.*

Li, He, *A generalized optimization problem with application to optimal design theory.*

Wu, Wen-Jun, *Unequal arm chemical balance weighing design.*

Zhao, Guanghua, *Banach*-algebras of completely bounded multilinear forms on locally compact groups.*

Zhong, Xiao-Hu, *The radial limits of functions in star-invariant subspaces of weighted H^p BMOA.*

Minnesota

University of Minnesota (26)

MATHEMATICS

Barcelo, Bartolome, *On the harmonic measure for nondivergence elliptic equations with lower order terms.*

Cerutti, Cristina, *Properties of Green's functions and uniqueness for diffusions related to 2nd order elliptic operators with decontinuous coefficients.*

Collins, Charles Robert, *Computation and analysis of twinning in crystalline solids.*

Escauriaza, Luis, *Boundary and interior regularity of gradients of solutions of parabolic and elliptic problems.*

Hong, Dug Hun, *Random walks with time stationary random distribution function.*

Jang, Jaeduck, *On spike solutions of singularly perturbed semilinear Dirichlet problem.*

Kwak, Minkyu, *Finite dimensional inertial forms for the 2D Navier-Stokes equations.*

Lee, Jaejin, *The combinatorics of the spin characters of the symmetric group.*

Mari-Beffa, Gloria, *Poisson geometry of the Virasoro algebra.*

Marin-Malave, Santiago, *Fatou theorems for some nonlinear elliptic partial differential equations.*

Matos, Joao, *Some mathematical methods of mechanics.*

Pan, Tsorng-Whay, *Analysis of shear flow instabilities in nematic liquid crystals.*

Reitich, Fernando Leiva, *Topics in free boundary problems and phase transitions.*

Rusewicz, Andrzej, *Extending reasonable ideals to countably saturated ideals on small algebras of sets.*

Sand, Mark P., *The structure of the inverse of layer potential operators.*

Seppalainen, Timo, *Large deviations for processes with stationary random distributions.*

Sheng, Li, *Dynamics of fluid sedimentation of spherical particles with inertial effects.*

Shepard, Melissa, *Some calculations in K-theory with an application to the image of the stable Hurwicz homomorphism in K-homology of infinite quaternionic projective space.*

Su, Jianzhong, *Delayed oscillation phenomena in the Fitz-Hugh-Nagumo equation.*

Susanka, Lawrence, *Potential theoretic and stopping time methods for converse mean value problems.*

Zheng, Stephen, *Investigations on the question of finiteness for the solutions of Plateau's problem.*

STATISTICS

Chattopadhyay, Manas, *Dirichlet bandit problems.*

Chen, Chung-Nien, *Model influence and influential observations in Bayesian statistics.*

Huang, Tze-Hsi, *Statistical inferences on change point problems.*

Kahng, Myung Wook, *Inference and diagnostics for nonlinear regression.*

Makris, Lukas, *Modeling uncertainty in the predictive causalty assessment problem for adverse drug reactions.*

Mississippi

University of Mississippi (1)

MATHEMATICS

Norris, Paula Anell, *Starlike functions with indicator B.*

Missouri

St. Louis University (2)

MATHEMATICS

Hopfinger, Mark M., *Nearly simple modules for polycyclic-by-finite groups.*

Ikeda, Yutaka, *A generalized Toponogov comparison theorem.*

University of Missouri, Columbia (4)

MATHEMATICS

Easley, Kevin, *Local existence of warped product metrics.*

Leranoz, Maria Camino, *Uniqueness of unconditional bases in quasi-banach spaces.*

STATISTICS

Kaiser, Mark, *Statistical models for limiting factors in ecology.*

Summerville, John, *Conditional properties of some interval estimators.*

Washington University (16)

MATHEMATICS

Chen, Zhenhua, *Boundary regularity of the $\overline{\partial}$-equation on convex domains.*

Fan, Dashan, *Hardy spaces on compact Lie groups.*

Gavosto, Estela Ana, *Analysis on finite type domains.*

Kellum, Mark, *Uniformly quasiconformal foliations.*

Lin, Nong, *Galerkin method for the boundary integral equations of the Dirichlet problems of the Laplace equation in Lipschitz domains.*

Ma, Daowei, *Invariant metrics on domains.*

Peloso, Marco Maria, *Möbius invariant spaces on the unit ball.*

Wu, Zhijian, *Hankel and Toeplitz operators on Dirichlet spaces.*

Zheng, Juneng, *Some extremal problems involving n points on the unit circle.*

SYSTEMS SCIENCE AND MATHEMATICS

Bouthellier, Paul, *Analysis and design of discrete-time, linear time-varying systems.*

Ganguly, Sugato, *Discrete time nonlinear feedback method on robot arm control.*

Geist, Daniel, *Semantic control in continuous time: Applications to aerospace problems.*

Maserang, Daniel, *Estimating R&D spillovers in major defense contractors an application of nonlinear filtering.*

Weil, Roark, *Artificial intelligence methods in utilizing low dimensional models of differential games.*

Yan, Di, *Methods for stochastic optimization.*

Zhan, Wei, *Noninteracting control with stability for nonlinear systems.*

Montana

Montana State University (1)

MATHEMATICAL SCIENCES

Fredenberg, Virgil, *Computer generated graphics in calculus and effect on student achievement.*

University of Montana (1)

MATHEMATICAL SCIENCES

Rummel, Steven, *A procedure for obtaining a robust regression employing the greatest deviation correlation coefficient.*

Nebraska

University of Nebraska (3)

MATHEMATICS AND STATISTICS

Jia, Bao Ping, *Splitting of prime ideals and valuations.*

Li, Yuanzhang, *Robust Bayesian analysis.*

Woerner, Edwin Louis, *Self-similar solutions to the detonation equations in non-homogeneous media.*

New Jersey

Princeton University (7)

MATHEMATICS

Axelrod, Scott, *Geometric quantization Chern-Simons gauge theory.*

Bertozzi, Andrea, *Existence, uniqueness and characterization of solutions to the conto dynamics equations.*

Fractman, Gabriel, *On the product formula quadratic forms.*

Schwartz, Richard, *The limit sets of so infinitely generated Schottky groups.*

Shu, Wei-Ton, *Spin-field equations and Yan Mills equation.*

Steinke, John, *The second variation of norm currents.*

Sullivan, John, *A crystalline approximat theorem for hypersurfaces.*

Rutgers University, New Brunswick (10)

MATHEMATICS

Caravella, Sandra, *Nonsingular affine surfa with unique C^* action.*

Chua, Seng Kee, *Extension and restric theorems on weighted Sobolev spaces.*

Fernandes, Jose C., *Mean value and Harnack inequalities for a class of degenerate parabolic equations.*

Holt, Linda, *Singularities produced in conormal wave interactions.*

Huang, Yi-Zhi, *On the geometric interpretation of vertex operator algebras.*

Kuplinsky, Julio Mario, *Hard-to-color graphs and mixed and restricted colorings.*

Lohrenz, Terry M., *Determinants on CR manifolds.*

Lu, Guozhen, *BMO estimates for eigenfunctions on Riemannian surfaces and degenerate differential equations given by vector fields satisfying Hormander's condition.*

Wang, Yuan, *Algebraic differential equations and nonlinear control systems.*

STATISTICS

Jou, Hann-Chang, *Assessing interrater agreement and treatment effect when data is ordinal.*

New Mexico

New Mexico State University (2)

MATHEMATICAL SCIENCES

Combs, Randel, *Weighted norm inequalities with general weights for multipliers on functions with vanishing moments.*

El-Gawi, Salem, *Aspects of Fatou-Julie theory for rational functions of degree one to four.*

University of New Mexico (4)

MATHEMATICS AND STATISTICS

Engman, Martin Feeney, *The spectrum of a surface of revolution.*

McCanna, Joseph E., *Characterization of self-dual graphs and related topics in graph theory.*

Porter, Thomas Dale, *Partitions of graphs.*

Robey, Thomas Howard, *The mixed finite element method.*

New York

Adelphi University (1)

MATHEMATICS AND COMPUTER SCIENCE

Gusack, Russell, *Mathematical models for the epidemiology of AIDS.*

CUNY, Graduate Center (9)

MATHEMATICS

Arcones, Miguel, *On the asymptotic theory of the bootstrap.*

Danas, George, *Crossed n-fold extensions and cohomology.*

Fung, Terry, *Fundamental domains of modular subgroups using isometric circles.*

Jiang, Wei-Hua, *On the dynamics of $\lambda \tan z$.*

Loo, Saoping, *Multicolor Ramsey numbers for disjoint unions of graphs.*

Mantzivis, Georgios, *Circuits in bounded arithmetic.*

Mishra, Sudakara, *Rays of small integer solutions of homogeneous ternary quadratic equations.*

Persinger, Sharon E., *One-relator groups with torsion virtually free-by-cyclic groups, and free-by-free groups.*

Tien, Jonathan, *Neural Petri nets and their applications to combinatorial games.*

Clarkson University (2)

MATHEMATICS AND COMPUTER SCIENCE

Li, Guoqing, *Edge crossing number problem and interactive graph editing system.*

Li, Wei, *Applications of the Riemann-Hilbert problem to colliding gravitational waves.*

Columbia University (11)

MATHEMATICS

Agboola, Adebisi, *Abelian varieties and Galois module structure in global fields.*

Jiang, Renfang, *On free actions on R-trees.*

Lee, Li, *Freeness and discreteness of actions on R-trees by finitely generated free groups.*

Lisca, Paolo, *On smoothly embedded tori in four-manifolds.*

Liu, Yingsheng, *Commensurability groups of uniform trees.*

Qin, Zhenbo, *Equivalence classes of ample divisors and moduli spaces of stable rank-2 bundles on ruled surfaces.*

Rogers, Michael Kevin, *On a multiplicative-additive Galois invariant and wildly ramified extensions.*

Zhang, Shouwu, *Numerical criteria for ampleness of arithmetical line bundles.*

STATISTICS

Quan, Hui, *Diagnostic jackknife and bootstrap for the proportional hazards model and nonparametric estimation of a treatment effect under biased sampling.*

Ray, Bonnie Kathryn, *Fractionally differenced ARMA processes: Seasonality and forecasting issues.*

Xue, Xing Xiong, *The martingale representation theorem for a class of Levy processes and its applications.*

Cornell University (15)

APPLIED MATHEMATICS

Laney, Culbert, *Monotonicity and overshoot conditions for numerical approximations to conservation laws.*

Park, Chang Kyun, *Testing 'fuzzy independence' in two-way contingency tables.*

BIOMETRICS

Feng, Ziding, *Statistical inference using maximum likelihood estimation and the generalized likelihood ratio under nonstandard conditions.*

MATHEMATICS

Destrempes, Francois, *Invariants of virtual lattices over group rings with applications to Galois module structure.*

Friedman, Erich, *First passage percolation on a Poisson lattice.*

Lieb, Gregory Stephen, *Holomorphic motions and Teichmüller spaces.*

Luo, Xiaolong, *High dimensional annihilating branching random walks.*

Peterson, Todd Edmund, *Convergence properties of the discontinuous Galerkin method for a scalar hyperbolic equation.*

Petrie, Emily Ruth, *Convergence of power series invariants for families of p-adic Galois representations.*

Senqupta, Ambar Niel, *The Yang-Mills measure for the two-sphere.*

Stafford, Seth, *Harmonic functions on manifolds of non-negative Ricci curvature.*

Yakhnis, Alexander, *Game-theoretic semantics for concurrent programs and their specifications.*

Yakhnis, Vladimir R., *Concurrent programs, calculus of state-strategies and Gurevich-Harrington games.*

STATISTICS

Hsieh, Fushing, *Performance of diagnostic tests in a non-parametric setting.*

Kane-Esrig, Yana, *Information retrieval and estimation with auxilary information.*

New York University, Courant Institute (19)

MATHEMATICS

Asch, Mark, *Analysis and numerical solution of a transport equation for pulse reflection in a randomlylayered medium.*

Calderon, Pablo, *On the macroscopic behavior of a large stochastic system.*

Coffey, Mark, *The cell discretization algorithm for partial differential equations.*

Cohn, Steve, *Resonance and long time existence for the quadratically nonlinear Schrödinger equation.*

Coulter, Lisa Osterman, *Piecewise smooth spline interpolation and the numerical solution of the Riemann problem for materials undergoing a phase transition.*

Filippas, Stathis, *Center manifold analysis for a semilinear parabolic equation arising in the study of the blow up* $u_t \quad \Delta u = u^p$.

Firoozye, Nikan, *Optimal translations and relaxations of some multiwell energies.*

Lima, Paulo Cupertino, *The renormalization group in the local potential approximation.*

McGrattan, Kevin, *A comparison of the potential and the Eüler formulations of the equations of motion for transonic flow.*

Morokoff, William, *Quasi-Monte Carlo methods for numerical integration and simulation.*

Puppo, Gabriella, *Prandtl's equations: Numerical results about singularity formation and a numerical method.*

Rybka, Piotr, *Dynamical modeling of phase transitions in solids by means of viscoelasticity in many dimensions.*

Schevermann, John, *Tabular equations of state and their use in the solution of Riemann problems.*

Smith, Barry, *Domain decomposition algorithms for the partial differential equations of linear elasticity.*

Tahuildar-Zadeh, Abdoireza, *Equivariant harmonic maps of the Minkowski space.*

Wang, Xiao, *Singular solutions for the nonlinear Schrödinger equation and Zatchanov equations.*

Xin, Xue, *Existence and stability of travelling waves in periodic media governed by a bistable nonlinearity.*

Zingano, Paulo, *Nonlinear stability analysis with decay rates of two classes of waves for conservation laws.*

Zumbrun, Kevin, *Asymptotic behavior for systems of nonconvex conservation laws.*

Polytechnic University (4)

MATHEMATICS

El-Achkar, Issam, *Regularity of probability and deterministic measures and separation of lattices in classical statistical models.*

Gnecco, Clare, *Bayesian decision theoretic designs for estimation using arithmetic loss.*

Siegel, Dale Alan, *Weak regularity of probability measures and of deterministic measurements in extended classical statistical models.*

Whang, In-Hong, *Lattice regular measures and associated outer measures.*

Rensselaer Polytechnic Institute (7)

DECISION SCIENCES AND ENGINEERING SYSTEMS

Gao, Zhengping, *Performance analysis of contention protocols for local area networks.*

Makuch, William, *Optimizing the collection of delinquent consumer credit.*

Rather, Laurie, *Information requirements for integrated manufacturing planning and control: A theoretical model.*

MATHEMATICAL SCIENCES

Gingrich, Ross, *A free boundary problem for a discontinuous semi-linear elliptic equation.*

Schmidt, Raymond, *Adaptive quadtree discretization for fluid flow problems.*

Schroeder, William, *Geometric triangulations with application to fully automatic 3-D generation.*

Wu, Xiao-Lei Charley, *A computer software system for solving graph theory problems—graph pack.*

SUNY at Albany (4)

MATHEMATICS AND STATISTICS

Bomash, Gregory, *Random analytic functions, their zero sets and singular measures.*

Kim, Seok-Chan, *Properties of the family of analytic functions with subordination class determined by rotations.*

Rajia, Abbess, *A new class of nonparametric Hazard rate function estimates.*

Weinraub, David, *Cofinite induction and Noether's theorem for Hopf orders in group algebras.*

SUNY at Binghamton (2)

MATHEMATICAL SCIENCES

Militello, Robert, *On the Cayley-Hamilton property in groups.*

Moore, Theresa Engel, *Deformation and rigidity along paths of manifolds.*

SUNY at Buffalo (11)

INDUSTRIAL ENGINEERING

Dell, Robert Franklin, *The development of equitable vehicle routes for overnight parcel deliveries.*

Jamil, Mamnoon, *The 1-center problem with queueing.*

Krishnamurthy, Nirup Naidu, *Modeling blocking in automated guided vehicle systems.*

MATHEMATICS

Chang, Wen-dong, *Quasi-periodic and periodic motions of a heavy rigid body about a fixed point.*

Chen, Bei-fang, *Combinatorial studies of geometric measures on singular spaces.*

Faro, Emilio, *A categorical study of affine geometry.*

Gao, Wei-zheng, *Threshold behavior in a class of semidiscrete dynamic systems.*

Jiang, Hua-Qiong, *Degenerate Hopf bifurcation and isolas of periodic solutions in an enzyme-catalyzed reaction model.*

Lu, Yin, *Existence of temperature plateau and existence of multiple solutions in combustion theory.*

Tong, Mai, *A strong modal set theory.*

STATISTICS

Sankoh, Abdul, *Some contributions to a Bayesian finite population model.*

SUNY at Stony Brook (16)

APPLIED MATHEMATICS AND STATISTICS

Baus, Theresa A., *A solution of the electromagnetic inverse scattering problem utilizing the generalized pulse spectrum technique.*

Teng, Lichen L., *The probability of correct classification conditional on distance from boundary.*

Yang, Chin-Chun, *A minimum modeling strategy in prediction outside the range of observations.*

Zhang, Fenggang, *On numerical methods for solving singular integral equations.*

MATHEMATICS

Gong, Guihua, *Smooth extensions for finite CW complexes and index theory.*

Hidalgo, Ruben, *On Schottky groups with automorphisms.*

Kasper, Brian, *Examples of symplectic structures on fiber bundles.*

Lam, Tsz Kin, *Spaces of real algebraic cycles and homotopy theory.*

Liu, Zhong-dong, *Nonnegative Ricci curvature near infinity and geometry of ends.*

McHugh, Andrew, *The space of super light rays for complex conformal spacetimes.*

Rong, Xiaochun, *Collapsed 3-manifolds and rationality of limiting η-invariants.*

Shen, Zhongmin, *Finite topological type and vanishing theorems for Riemannian manifolds.*

Tan, Delin, *On generalizations of Jørgensen's inequality for Kleinian groups and some topics on quasiconformal extension.*

Yu, Jinguo, *The Euler equations of an incompressible ideal fluid in a high-dimensional bounded region.*

Zeng, Xueqi, *Clifford cohomology and Kähler geometry.*

Zhu, Shun-hui, *Bounding topology by Ricci curvature in dimension three.*

Syracuse University (4)

MATHEMATICS

Fatica, Vincent Edward, *On edge-critical graphs and the notion of vertex independence in graphs.*

Kantrowitz, Robert, *Homomorphisms into Banach algebras of continuous vector-valued functions.*

Novak, Carolyn, *A study to determine possible trends between students' problems and successes and instructors' and teaching assistants' usage levels and concern stages implementing calculators into class.*

Schembari, Nunzio P., *Functions of generalized bounded variation, generalized absolute continuity and applications to Fourier series.*

University of Rochester (9)

MATHEMATICS

Barrionuevo, Jose A., *L^2 estimates for some Kakeya-type maximal functions.*

Marhuenda, Francisco, *Microlocal analysis of some isospectral problems.*

Sanchis, Gabriela Raquel, *Large deviations in function space: An extension of Cramer's theorem.*

Silberbush, Paul, *Suspension orders and the stable decomposition of iterated loops on spheres.*

Wong, Shiu-chun, *The fibre of the iterated Freudenthal suspension.*

STATISTICS

Chen, Shande, *Generalization of influence functions and their applications.*

Dasu, Tamraparni, *The proportional mean residual life model.*

Smethurst, Philip, *Generalized spacings and entropy: Some theory and applications.*

Svoronou, Alexandra, *Multivariate Markov processes via the Green's Function Method.*

North Carolina

Duke University (11)

MATHEMATICS

An, Lianjun, *Loss of hyperbolicity in elastic–plastic material at finite strains.*

Hsu, Lucas, *Calculus of variations via the Griffiths formalism.*

Johnson, Michael Joseph, *Numerical methods for semiconductor process simulation in two spatial dimensions: A nonlinear diffusion problem with a free boundary.*

Polaski, Thomas William, *Estimates for differences and Harnack's inequality for functions harmonic with respect to random walks.*

Poznanski, Jonathan, *A meta-analytic approach to estimating item difficulties.*

Shin, Insun, *Diffusion with periodic obstacles and applications to intracellular diffusion.*

Sun, Tien-Yu, *A class of three dimensional steady water waves generated by localized pressure disturbances.*

Wang, Feng, *Numerical study of granular flow in a converging hopper.*

Ye, Yun-Gang, *Relative Brill-Noether theory and an infinitesimal version of the Harris-Mumford problem.*

Zhang, Qi, *Adjunction for vector bundles, characterizations of uniruled varieties, and small contraction mappings.*

Zhang, Taiyan, *Periodic limit of inverse scattering.*

North Carolina State University, Raleigh (17)

MATHEMATICS

Augustine, M. K., *Monoids of Lie type and their congruences.*

Han, Jun Cheol, *Involutions in left Artinian rings.*

James, Douglas, *Conjugate gradient methods for constrained least squares.*

Moneyhun, Kay Marie, *Isoclinisms in Lie algebras.*

Talmadge, Andrew VanSickle, *A geometric formulation of the Higgs mechanism via internal metric fields.*

Terrell, William Jennings, *Observability and external description of linear time varying singular control systems.*

OPERATIONS RESEARCH

Al-Jazzaf, Mahdy I., *Multiplier methods with partial elimination of constraints for nonlinear programming.*

Jan, Gwo-Ming, *A new variant of the primal affine scaling algorithm for linear programming.*

Michael, David J., *The optimal representation of activity networks as directed acyclic graphs.*

STATISTICS

Filloon, Thomas Gene, *Improved curve estimation with smoothing splines through local cross-validation.*

Fitz-Simons, Terence Rhette, *Fitting a lognormal distribution to air quality data observed with measurement error.*

Hughes-Oliver, Jacqueline Mindy-Mae, *Estimation using group-testing procedures: Adaptive iteration.*

Khalil, Tarek Mohamed, *A study of the doubly geometric processes, stationary cases and a non-stationary case.*

McCaffrey, Daniel Francis, *Estimating Lyapunov exponents with nonparametric regression and convergence rates for feedforward single hidden layer networks.*

Meier, Kristen Louise, *Estimating rate equations using nonparametric methods.*

Wisniewski, Michael Edward, *Analysis of time series with missing values.*

Yu, Yanan, *A Leslie model, threshold function, and uncertainty for chemical control of corn earworm.*

University of North Carolina, Chapel Hill (8)

BIOSTATISTICS

Atkinson, Susan Shearer, *Analysis of categorical data for crossover design.*

Davis, Vicki G., *Subsampling strategies in large studies of chronic diseases.*

Edwards, Lloyd Jerome, *Errors in variables and properties of statistical inference.*

Shemanski, Lynn Roberta, *K-ratio tests with covariates.*

MATHEMATICS

Coan, Boyd, *Top exterior powers over commutative rings.*

Tendian, Sonny, *Deformation of cones over curves of high degree.*

White, Homer, *Algorithmic complexity of trajectories of points in dynamical sytems.*

OPERATIONS RESEARCH

Liang, Huei-Mei, *Retrial queues.*

Ohio

Bowling Green State University (5)

MATHEMATICS AND STATISTICS

Mohanty, Supriya, *Structure theory of limited codes.*

Selvavel, Kandasamy, *Statistical inference for truncation parameter families.*

VanRie, Debra, *Quasi-varieties of 1-metabelian lattice-ordered groups.*

Varga, Tomas, *Matrix variate elliptically contoured distributions: Stochastic representation and inference.*

Weininger, David, *Cartesian groups and their corresponding Bose-Mesner algebras.*

Case Western Reserve University (6

OPERATIONS RESEARCH

Araar, Abdelaziz, *Optimization of queueing systems with service interruptions.*

Benmerzouga, Ali, *Optimal group replacement policies.*

Biermann, Jeanette Aileen Stifel, *An inquiry into the optimal loads on servers in a queueing network.*

Dhamankar, Sunil Yashwant, *An efficient group-theoretic algorithm for an assignment problem with a single knapsack constraint.*

Kamrad, Bardia, *A multinomial lattice option pricing methodology for valuing risky ventures: Multiple sources of uncertainty.*

Singer, Ethan Lloyd, *Modeling the mail survey response pattern and determining the optimal number of questionnaires: A Bayesian approach.*

Kent State University (4)

MATHEMATICS AND COMPUTER SCIENCE

Li, Xiezhang, *An adaptive method for solving nonsymmetric linear systems involving application of SCPACK.*

Masri, Ibrahim, *Estimates for norms of multilinear Hankel operators and absolutely summing multipliers.*

Shura, Thaddeus J., *The Lambda property in normed linear spaces.*

Sorenson, Timothy, *Characters which vanish on all but three conjugacy classes.*

Ohio State University (19)

MATHEMATICS

Blanchard, John, *Integral equation analysis of artificial dialectrics.*

Druschel, Kimberly, *Orbiford cobordism invariants.*

Forrest, Alan, *Recurrence in dynamical systems: A combinatorial approach.*

Iwakata, Yasushi, *Subschemes of group association schemes.*

Lari Lavassani, Ali, *Multiparameter bifurcation with symmetry via singularity theory.*

Manoharan, Palanivel, *A study of Fréchet manifolds.*

Mariasousai, William, *Approximation by multivariate polynomials of fixed length.*

Prabaharan, Kanagarajah, *Topics in ergodic theory: Existence of invariant elements and ergodic decompositions of Banach lattices.*

Prieto-Cox, Juan Pablo, *Representations of positive definite Hermitian forms.*

Rodriguez-Villegas, Fernando, *On the square root of special values of certain L-series.*

Szabo, Laszlo, *On ergodic and martingale theorems in Orlicz spaces.*

Tam, Laying, *The general Euler-Borel summability method.*

Voon, Shu-nan, *Genus of* $Sl_2(F_q)$.

Wang, Qi, *Dynamics of viscoelastic slender free jets.*

Xia, Yining, *Farrell-Tate cohomology of the mapping class group.*

Yan, Zhongde, *On the prophet inequality for the transforms of processes.*

STATISTICS

Kim, Dongjae, *Distribution-free tests based on placements and partially sequential treatments versus control procedures.*

White, Susan Elizabeth, *Robust multiple comparison procedures.*

Zhou, Xiao hua, *Robust procedures in survival analysis and reliability.*

Ohio University (2)

MATHEMATICS

Al-Huzali, Abdullah, *A study on the weak relative injectivity of rings and modules.*

Cai, Zhixiong, *Anti-periodic boundary value problems for differential equations with monotone operators in Banach spaces.*

University of Cincinnati (2)

MATHEMATICAL SCIENCE

Guo, Lijia, *Stabilized numerical solution for inverse head conduction problems.*

QUANTITATIVE ANALYSIS AND INFORMATION SYSTEMS

Roberts, Donna, *Incorporating uncertainty into data envelopment analysis.*

Oklahoma

Oklahoma State University (1)

STATISTICS

Maksum, Choiril, *A new method for imputing missing values when the probability of response depends on the variable being imputed.*

University of Oklahoma (1)

MATHEMATICS

Davidson, James Ross, *Disconjugacy criteria for a third-order linear differential equation.*

Oregon

Oregon State University (4)

MATHEMATICS

Choi, In-Kyeong, *On straight line representations of random planar graphs.*

Crow, John Anthony, *A nonlinear shallow water wave equation and its classical solutions of the Cauchy problem.*

Hwang, Daesik, *Large deviation principles for random measure.*

STATISTICS

O'Donnell, Robert P., *Fisher and logistic discriminant function estimation in the presence of collinearity.*

University of Oregon (3)

MATHEMATICS

Deck, Karin M., *A Galois theory for transcendental field extensions.*

Hollingsed, Thomas, *The lattice of closed subgroups of a topological group.*

Roehrle, Gerhard, *Orbits in internal Chevalley modules.*

Pennsylvania

Carnegie Mellon University (9)

MATHEMATICS

Carrera, Maria-Cecilia Arce, *A computational study of the set covering problem.*

Hu, Xiaohua, *Covolume techniques for anistropic media/application of spectral methods to a Cahn-Hilliard model of phase transition.*

Struthers, Allan, *Mobile phase boundaries in elastic media.*

STATISTICS

Chen, Rong, *Two classes of non-linear time series models.*

Ding, Ye, *Capture–recapture census with uncertain matching.*

Etzioni, Ruth, *Bayesian group-sequential sampling with applications to tax auditing.*

Parmigiani, Giovanni, *Optimal scheduling in inspections with an application to medical screening tests.*

Peruggia, Mario, *Iterated function systems and the propagation of rounding errors.*

Wang, Lian, *Topics in team decision theory.*

Drexel University (1)

MATHEMATICS AND COMPUTER SCIENCE

Sevy, Jonathan, *Acceleration of convergence of sequences of simultaneous approximants.*

Lehigh University (4)

MATHEMATICS

Chen, Chaorong, *Networks and nonlinear phenomena in oxygen transport to tissue.*

Schultes, Carla Nelson, *Characteristic classes of totally geodesic and Riemannian foliations.*

Stoudt, Gary S., *Sequence space properties related to the Wilansky property.*

Wang, Jian-hua, *Extended canonical transformations and their applications to systems of partial differential equations.*

Pennsylvania State University (13)

MATHEMATICS

Hajmirzaahmad, Mojdeh, *The spectral resolution of Laguerre operators in right definite and left definite spaces.*

Li, Wu, *Continuous selections for metric projections in function spaces.*

Lo, Wing Tai, *On super theta functions, super elliptic functions, and the Weil representation.*

Moriyoshi, Hitoshi, *Chern characters and noncommutative Chern-Weil theory.*

Movahedi-Landkarani, Hossein, *Minimal Lipschitz embeddings.*

Santa Gadea, Nicolas Alfredo, *On the rank and the crank moduli* 8, 9, and 12.

Santos, Jose Plinio de O., *Computer algebra and identities of the Rogers-Ramanujan type.*

Tom, Michael Mudi, *Global well-posedness, local smoothing, and dispersive blow-up of some nonlinear dispersive equations.*

Wei, Shi Yuan, *On the combinatorics of representations of classical linear groups.*

STATISTICS

Brown, Michael, *A framework for evaluating interim analysis rules in clinical trials.*

Deng, Min, *Differential geometry in statistical inference.*

Liu, Zhijun, *Some contributions to nonparametric estimation and robust estimation.*

Serinko, Regis, *The asymptotics of univariate K-mean and K-median clustering under some nonregular conditions.*

Temple University (11)

MATHEMATICS

Abeysinghe, Wadduwage, *Reformation and solution of some ranking problems.*

Banh, Tong T., *Fredholm maps and transversality.*

Chandrakantha, M. W. Leslie, *Testing random walk hypothesis using variance ratios.*

Hedrick, Paul J., *Path covers and the Hamilton cover problem.*

Lee, Min-Young, *Bonferroni-type inequalities.*

Lin, Xu-Sen, *Exchangeability in extreme value theory and some Poisson limit theorems.*

Shadur, Raphael, *Poisson and Poisson related stochastic processes.*

STATISTICS

Cheung, Siu Hung, *On smoothing discrete bivariate densities with applications to two-way contingency tables.*

Ghosh, Krishnendu, *Robust multivariate regression analysis of complex-valued data.*

Goldberg, Kenneth M., *Bivariate extensions of the box plot and distribution free quartile based tests.*

Sarranadasa, Hewa, *Discriminant analysis based on some concepts of experimental designs.*

University of Pennsylvania (9)

MATHEMATICS

Alber, Mark, *Geometric phases, geometric asymptotics, and integrable systems.*

Cai, Mingliang, *On manifolds of almost non-negative Ricci curvature.*

Dew, Eric, *Fields of moduli of arithmetic Galois groups.*

Giaquinto, Anthony, *Deformation methods in quantum groups.*

Iaia, Joseph A., *Isometric embeddings of surfaces with non-negative curvature in* $\mathbb{R}^3$.

Kamberov, George I., *Singular geometric partial differential equations.*

Lu, Duojia, *Homogeneous foliations of spheres.*

STATISTICS

Lim, Pilar, *Measurement error in simultaneous qualitative response models.*

Üzünogullari, Ülkü, *Estimation of the hazard function and its derivatives under random truncation models.*

University of Pittsburgh (3)

MATHEMATICS AND STATISTICS

Hong, Bin, *Symmetry on solution manifolds of parametrized equations.*

Hu, Tien-You, *Fractal dimensions and singularities of the Weierstrass type-functions.*

Ye, Xiu, *Construction of divergence free space for Navier-Stokes equations.*

Rhode Island

Brown University (16)

APPLIED MATHEMATICS

Fakhroo, Fariba, *Legendre tau approximation for an active noise control problem.*

Fan, Jiang-ping, *Characteristic multipliers of periodic solutions of singularly perturbed delay differential equations.*

Intrator, Nathan, *Feature extraction using an exploratory projection pursuit neural network.*

Intrator, Orna, *Methods for exploring survival data.*

Kossioris, Georgios, *Propagation of singularities for solution of Hamilton-Jacobi equations.*

Martin, James, *Numerical investigation of three-dimensionally evolving jets.*

Platt, Nathan, *An investigation of chaotic Kolmogorov flows.*

Raphael, Christopher, *Mathematics in radiation therapy treatment planning.*

Wang, Yun, *Damping modeling and parameter estimation in Timoshenko beams.*

Yang, Jichuan, *Sensitivity analysis and parametric optimization for stochastic systems.*

Zhou, Xiang, *Coherence and chaos in a model of turbulent boundary-layer flow.*

MATHEMATICS

Baragar, Arthur, *The Markoff equation and equations of Hurwitz.*

Chang, Xiang-Qian, *Weighted norm equality for martingales.*

Donohoe, William, *Generalized Castelnuovo inequalities.*

Huang, Ying, *Floquet theory for linear periodic differential delay equations.*

Johnson, Brenda, *The derivatives of homotopy theory.*

University of Rhode Island (1)

MATHEMATICS

Vlahos, Panagiotis N., *Global attractivity in delay difference equations.*

South Carolina

Clemson University (2)

MATHEMATICAL SCIENCES

Brown, David Dean, *Iterated presentations and module polynomials over extensions of finite fields.*

Lundquist, Michael Edward, *Zero patterns, chordal graphs and matrix completions.*

University of South Carolina (6)

MATHEMATICS

Beintema, Mark, *Gorenstein algebras with unimobal H-sequences.*

Liu, Shih-haa, *Boundary limits of generalized Green potentials on the unit ball in* R^n.

Palmer, Susan, *Algebra structures on resolutions of rings defined by grade four almost complete intersections.*

Ren, Guanshen, *On non-Archimedean normed spaces.*

Still, Charles Herbert, *Parallel methods for unconstrained optimization.*

STATISTICS

Sa, Ping, *Multiple comparisons with a control in response surface methodology.*

Tennessee

Memphis State University (2)

MATHEMATICAL SCIENCES

Harris, John H., *Hypertext vs. lineartext as learning tools.*

Lin, Chiu-Chin Vickey, *Robust studies on some time series models.*

University of Tennessee (3)

MATHEMATICS

Condo, John T., *LCM-stability of power series extensions characterizes Dedekind domains.*

Im, Young Ho, *Submanifold decompositions that induce approximate fibrations and approximations by bundle maps.*

Silva, Jacques A. Loureiro Da, *Stability of nonlinear age structured models.*

Vanderbilt University (5)

MATHEMATICS

Aluthge, Ariyadasa, *Properties of p-hyponormal operators.*

Hart, James Buford, *Decompositions for relatively normal lattices.*

Jones, Joel Lynn, *The concordance extension theorem.*

Knisley, Jeff Randell, *The analytic model of a semi-hyponormal operator with rank one polar difference.*

Lyon, Bradford Franklin, *On zeta functions associated to the product of two Einstein series and their Liz* SL(2, *Z*)*-spectral expansions.*

Texas

Rice University (14)

MATHEMATICAL SCIENCES

Bao, Gang, *Microlocal regularity of an inverse problem for the multidimensional wave equation.*

El-Bakry, Amr Saad, *On the role of indicators in identifying zero variables in linear programming.*

Kelley, Robert, *Optical illusions and augmented graphics for manned and robotic guidance and control.*

Overley, H. Kurt, *A new secant update for nonlinear constrained optimization.*

Raydan, Marcos, *Convergence properties of the Barzilai and Borwein gradient method.*

Saigal, Sanjay, *Optimizing over the cut cone: A new polyhedral algorithm for the maximum-weight cut problem.*

Samuelsen, Catherine, *The Dikin-Karmarkar principle for steepest descent.*

Wu, Zhijun, *A subgradient algorithm for nonlinear integer programming and its parallel implementation.*

MATHEMATICS

Anderson, John P., *Harmonic diffeomorphisms between manifolds with bounded curvature.*

Cheng, Xiaoxi, *Evolution problems in geometric analysis.*

Eisenlohr, John M., *Fully transitive polyhedra with crystallographic symmetry groups.*

Poon, Chi Cheung, *Axially symmetric harmonic maps and relaxed energy.*

Tomlinson, Kathy A., *An analog to the heat equation in complex space variables.*

Zhou, Xiadong, *Some static and dynamic problems in plasticity.*

Southern Methodist University (11)

COMPUTER SCIENCE AND ENGINEERING

Fan, Chin-Feng, *Design and performance optimization of a multi-risk execution model for parallel logic programs.*

Gruenwald, Gia-Loi Le, *Reload in a main memory database system: MARS.*

Hickman, Betty L., *Parallel algorithms for pure network problems and related applications.*

Leff, Laurence L., *Symbolic finite element analysis and constructive solid geometry.*

Lin, David Dah-Haur, *An efficient environmental support for heterogeneous distributed programming.*

Lucks, Michael, *A knowledge-based framework for the selection of mathematical software.*

Stewart, Bryan Douglas, *Multi-tree algorithms for efficient shortest-path computation.*

Thiagarajan, Kumar, *Fractional quadratic zero-one programs for graph partitioning and hierarchical clustering.*

Wang, Zhiming, *The shortest augmenting path algorithm for bipartite network problems.*

Yang, Cheng, *A multi-layer design and load sharing algorithm for personal communication networks.*

MATHEMATICS

Zhang, Wen, *Numerical solution of ordinary differential equations with applications.*

Texas A&M University (4)

STATISTICS

Chang, Kyung, *Asymptotic expansions of the distributions of studentized test statistics for the slope parameter in simple linear structural relationships.*

Hwang, Lie-Ju, *An empirical Bayes approach to variance function estimation.*

Jayasuriya, Bodhini Rasika, *Testing for polynomial regression using nonparametric regression techniques.*

Parsa, Amba Rahulji, *Analysis of contingency tables with structural zeros and ordered categories.*

Texas Tech University (3)

MATHEMATICS

Iakovidis, Ilias, *Observability and the inverse problem in electrocardiography.*

Jang, Ruey-Jen, *The ideal structure of the algebraic Eigenspace to the spectral radius of eventually compact, reducible, positive linear operators.*

Richards, Kendall Clyde, *Majorization in the Bergman space.*

University of Houston (3)

MATHEMATICS

Chen, Shui-Tain, *On selected conjectures of Graffiti.*

Dionne, Benoit, *Spatially periodic patterns in two or three dimensions.*

Tiballi, Terry R., *Symmetric orthogonalization of vectors in Hilbert space.*

University of North Texas (3)

MATHEMATICS

Ali, Ismail A., *Uniqueness of positive solutions for elliptic Dirichlet problems.*

Bozeman, Alan K., *Weakly dense subsets of homogeneous complete Boolean algebras.*

May, Lee C., *A solution-giving transformation for systems of differential equations.*

University of Texas, Arlington (2)

MATHEMATICS

Johnson, Ronald Duane, *Some computational differential geometry questions in solid modeling.*

Pierce, Rebecca Lynn, *On the choice of the prior distribution in hypergeometric sampling.*

University of Texas, Austin (10)

MATHEMATICS

Claus, Wilhelmina Christina, *Essential laminations in closed Seifert fibered spaces.*

Kohn, Peter, *Linking and unlinking properties of two component links.*

Nanyes, Ollie, *Proper knots are locally unknotted and a new proof of Schubert's bridge number theorem.*

O'Leary, Robbin Lynn Lerch, *Small solutions to inhomogeneous systems of linear equations over an algebraic number field.*

Saito, Masahico, *Invariants of link cobordism.*

Seelinger, George Francis, *Orthogonal matrix invariants and generalized matrix concomitants.*

Semple, John, *On a class of dual methods for quadratic programming.*

Sun, Li, *On some problems of chance-constrained programming.*

Sun, Xingping, *Multivariate interpolation using ridge or related functions.*

Tintera, George Dunkin, *On the stable rank of enveloping algebras.*

University of Texas, Dallas (3)

MATHEMATICAL SCIENCES

Feistel, Robert Fritz, *Robust singular-value decomposition.*

Gautam, Shiva Prasad, *Applications of the t, T^2 and F statistics to ordinal categorical data.*

Wildenhain, Kenneth Raymond, *Inversion techniques for wave velocity and density in an elastic medium with horizontal homogeneity.*

Utah

University of Utah (8)

MATHEMATICS

Devoto, Jorge Andres, *Finite group actions and elliptic genera.*

Ferguson, Kenneth, *A constructive approach to the SU(2) Witten invariant.*

Izadi, Elham, *On the moduli space of four-dimensional principally polarized abelian varieties.*

Kinyon, Michael Kenneth, *The adjoint problem for coupled linear operators.*

Lundstrom, Ronald, *Stochastic models and statistical methods.*

Ma, Yonghao, *A division algorithm over $Z[x_1, \ldots, x_n]$ and the first syzygies of determinantal ideal.*

Wickham, Cameron Garth, *Annihilation of homology of certain finite free complexes.*

Wiskin, James, *Integral equation and geometric methods for scattering in layered media.*

Virginia

George Mason University (1)

OPERATIONS RESEARCH AND APPLIED STATISTICS

Ndousse, Thomas, *Queueing models of an integrated packet voice and data network with congestion control.*

Old Dominion University (4)

MATHEMATICS AND STATISTICS

Arriola, Leon, *A generalization of linear multistep methods.*

Casper, Jay, *An extension of essentially non-oscillatory shock-capturing schemes to multi-dimensional systems of conservation laws.*

DeRise, George, *The Fokker-Plank and related equations in theoretical population dynamics.*

Wangler, Thomas, *A mathematical model of the dynamics of an optically pumped codoped solid state laser system.*

University of Virginia (19)

APPLIED MATHEMATICS

Averick, Brett Mitchell, *Solution of nonlinear Poisson-type equations.*

Bradley, Mary Elizabeth, *Local and global exponential stabilization results for nonlinearly perturbed plates models where nonlinearities appear on the boundary.*

England, Michael Rohn, *A classification of general helicoidal shells.*

Falgout, Robert Dean, *Algebraic–geometric multigrid methods for Poisson-type equations.*

Ourada, Norman Lee, *Uniform stabilization for the Euler-Bernoulli equation with feedback operator in only the Neumann boundary condition.*

Russell, William Stuart, *Analysis of the spiral properties in prototype galaxies.*

MATHEMATICS

Cruz-Sampedro, Jaime, *Boundary values at infinity of solutions to the Schrödinger equation.*

Herrin, Jeffrey, *The Born-Oppenheimer approximation: Straight-up and with a twist.*

Krason, Piotr, *On the category of unstable modules modulo its nilpotents.*

Lake, Douglas, *Determining the motion of an object through variable time delay estimation.*

Linde, Darryl, *Some operators on the Newton spaces.*

Lu, I-Li, *Multivariate natural exponential families.*

Magnus, John, *Lie ideals closed under non-Lie polynomials.*

Magnus, Teresa Deltz, *Geometries over nondivision rings.*

Morrisett (Clark), Julia, *Relations between quadratic residue codes written in their defining field and certain other classical codes.*

Ross, William T., *Multiplication operators and invariant subspaces on Bergman spaces.*

Torrence, Bruce, *Submanifolds of products of real projective spaces.*

Torrence, Eve, *The coordinatization of a hexagonal Barbilian plane by a quadratic Jordan algebra.*

Wassell, Stephen, *The stability of a Hamiltonian system at high energy.*

Virginia Commonwealth University (7)

BIOSTATISTICS

Anderson, Randy, *Robust linear regression with censored responses.*

Bortey, Enoch, *Hypothesis testing based on ranks in multivariate linear models.*

Chien, Tsui-Hsien, *Distribution-free tests for interaction in a two-way design.*

Edwards, Erick, *A Monte Carlo approach to hypothesis testing in nonparametric regression.*

Esinhart, James, *Statistical inference on intrasubject variability in bioequivalence studies.*

Hunsberger, Sally, *Semiparametric regression in likelihood based model.*

Jung, Hyonggi, *Interval estimation of the median lethal dose using an up-and-down method under a probit model.*

Virginia Polytechnic Institute and State University (12)

MATHEMATICS

Fast, Stephen Hardin, *Examples and theorems for generalized paracompact topological spaces.*

Ge, Yuzhen, *Studies of one-dimensional maps in the chaotic regime.*

Hammer, Patricia, *Parameter identification in parabolic partial differential equations using quasilinearization.*

Huang, Jiann-Shiun, *One-to-one correspondence between maximal sets of antisymmetry and maximal projections of antisymmetry.*

Kang, Jeongook, *Interpolation problem for rational matrix function with low McMillan degree.*

Lee, Gyou Bong, *A study of the computation and convergence behavior of eigenvalue bounds for self-adjoint operators.*

McCoy, Daisy C., *Irreducible elements in algebraic number fields.*

Park, Young Wook, *Large deviations theory for queueing systems.*

STATISTICS

Agard, David, *Robust inferential procedures applied to regression.*

Baik, JaiWook, *$\overline{X}$ control charts in the presence of correlation.*

Kuzmak, Barbara, *An examination of outliers and interaction in a nonreplicated two-way table.*

Rozum, Michael, *Effective design augmentation for prediction.*

Washington

University of Washington (16)

BIOSTATISTICS

Ciol, Marcia Aparecida, *An adaptive case-cohort design.*

De Andrade, Mariza, *Estimation of genotype parameters under nonnormal models.*

Fellingham, Gilbert Warren, *An analysis of longitudinal models.*

Kosinski, Andrzej Stanislaw, *A geometric view of iterative methods, matrix decompositions and multiple case regression diagnostics.*

Lin, Lillian Shengjung, *Analysis of multivariate binary outcome data from a randomized clinical trial.*

McGorray, Susan Patricia, *Evaluation of environmental and genetic components of disease susceptibility based on data obtained from sibling pairs.*

Watelet, Luc Freddy, *Non-parametric estimation of component life distributions in Meilijson's competing risk model.*

MATHEMATICS

Kwon, Joong Sung, *Some products of stochastic set functions.*

Lear, Dale, *Extensions of normal functions and asymptotics of the height pairing.*

Wright, Stephen E., *Convergence and approximation for primal-dual methods in large-scale optimization.*

Yan, Dung Yung, *On the Thom spectra over the loops on $\mathrm{SU}(n)/\mathrm{SU}(n)$, and Mahowald's spectra.*

STATISTICS

Kahn, Michael Jay, *Incorporating covariates into a beta-binomial model with applications to medicare policy: A Bayes/empirical Bayes approach.*

Le, Nhu Dinh, *Modeling and bootstrapping for non-Gaussian time series.*

Newton, Michael Abbott, *The weighted likelihood bootstrap and an algorithm for prepivoting.*

Sheehan, Nuala Ann, *Genetic restoration on complex pedigrees.*

Taplin, Ross Howard, *Modelling agricultural trials on the field in the presence of outliers and fertility jumps.*

Wisconsin

Marquette University (1)

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

Vachuska, Colleen Ann, *Contributions on completely regular semigroups.*

University of Wisconsin, Madison (30)

INDUSTRIAL ENGINEERING

Ferreira, Pedro, *Intertemporal stability of patient's quality judgments.*

Potthoff, Sandra, *A comparison of two elicitation methodologies for modeling expert judgment.*

MATHEMATICS

Arvola, William A., *The fundamental group of the complement of an arrangement of complex hyperplanes.*

Calbeck, William S., *L^p decomposition of functions defined on C^∞ totally real submanifolds of $\mathbb{C}^n$ into boundary values of functions holomorphic in wedges.*

Cholak, Peter Abe, *Automorphisms of the lattice of recursively enumerable sets.*

Fan, Haitao, *The existence, uniqueness and stability of the Riemann problem of a system of conservation laws of mixed type.*

Gwanyama, Philip Wagala, *A model of human mathematics-problem-resolution in analysis.*

Iltis, Michael George, *Asymptotics of large deviations for I.I.D. and Markov-additive random variables in* $\mathbb{R}^d$.

Keppelmann, Edward C., *Periodic points on nilmanifolds and solvmanifolds.*

Kim, Weonja, *L^p bounds for Hilbert transforms along convex surfaces.*

Landver, Avner, *Singular Baire numbers and related topics.*

Shaw, Kari Elizabeth, *Boundary behavior of Besov functions.*

Siegel, Eli Adam, *The representations of a Hecke algebra of the affine group over a finite field.*

Stroomer, Jeffrey Dean, *Combinatorics and the representation theory of* $\mathrm{GL}(r, \mathbb{C})$ and $\mathrm{Sp}(2r, \mathbb{C})$.

Sun, Shu Ming, *Theory of surface waves in the presence of surface tension.*

Wright, James Robert, *L^p estimates for operators associated to oscillating plane curves.*

Wu, Xuezheng, *Smooth linearization near a hyperbolic fixed point.*

Ye, Zaifei, *Holomorphic extension and decomposition from a totally real manifold.*

Zhong, Ning, *Generalized metric spaces and products.*

Zrotowski, Roman Jozef, *Indescribability properties of large cardinals.*

STATISTICS

Basu, Sabyasachi, *Analysis of first-order spatial bilateral ARMA models.*

Chen, Hanfeng, *Efficiency of tests following Box-Cox transformations.*

Chen, Jiahua, *On minimum aberration factional factorial designs.*

Ho, Chiang-Hong, *Topics in cumulative sum procedures.*

Jones, Stephen, *Designs for minimizing the effect of environmental variables.*

Kim, Whasoo, *Choosing response surface designs for multiple responses.*

Lee, Jae-Won, *Interim analyses with repeated measurements in clinical trials.*

Shieh, Shwu-Rong, *Some extensions of U- and V-statistics.*

Soo, Yuh-Wen, *Spline-based regression for nonlinear models with multiple responses.*

Su, John(Qiang), *Analysis of repeated measurements.*

University of Wisconsin, Milwaukee (5)

MATHEMATICAL SCIENCE

Abeyratne, Athula I., *Limit distributions for a multitype branching process in a random environment.*

Choo, Joshua Youngmyo, *Stable high order methods for solving elliptic equations with large first order terms.*

Hero, Michael W., *A characterization of the attracting center for dynamical systems on the interval and circle.*

Koker, John Joseph, *Homological dimension of rings with Krull and Gabriel dimension.*

Rim, Seog Hoon, *On semiperfect localizations.*

Wyoming

University of Wyoming (10)

MATHEMATICS

Curran, Mark Charles, *Numerical schemes for highly advective flows using finite-element collocation with adaptive local grid refinement.*

Li, Chao, *Adaptive computation in convective-diffusion model with application to water contamination.*

Li, Gang, *Finite element methods and error estimates for two dimensional chemical flooding reservoir simulation.*

Lin, Tao, *Some direct numerical methods for inverse problems of one dimensional parabolic equations.*

Sansiry, Prashant, *A numerical scheme to track the growth of cavities in underground coal gasification.*

Schumann, Shannon, *Characterizations of decomposable and indecomposable inverse limit spaces.*

STATISTICS

Al-Sunduqchi, Mahdi, *Determining the appropriate sample size for inferences based on the Wilcoxon statistics.*

Bromaghin, Jeffrey F., *Sampling and parameter estimation in avian nesting studies.*

Gonzalez, Maria Liliana, *Geostatistical hypothesis testing.*

Krehbiel, Timothy C., *Sequential design and analysis of s^m factorial experiments.*

Canada

Dalhousie University (2)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Ireland, Alice Marie, *An intelligent decision support system for debt management.*

Ye, Juan Juan, *Optimal control of piecewise deterministic Markov processes.*

McGill University (4)

MATHEMATICS AND STATISTICS

Chayet, Maurice, *Some general estimates for the heat kernel on symmetric spaces and related problems of integral geometry.*

Chu, Ping-Tong David, *Representations of exact distribution of random volume from beta type-2 random points.*

Funk, Jonathon Randall, *Descent for cocomplete categories.*

Sbihi, Mohammed Amine, *Covering times for random walks on graphs.*

McMaster University (3)

MATHEMATICS AND STATISTICS

Schlitt, Gregory Mark Stephen, *N-compact frames and applications.*

Squire, Richard, *Presheaf toposes and propositional logic.*

Zhang, Ying-Lan, *Ore localizations and irreducible representations of the first Weyl algebra.*

Queen's University (3)

MATHEMATICS AND STATISTICS

Kechagias, Epaminondas, *Homology operations and modular invariant theory.*

Tautz, Walter, *Reduction of Abelian varieties over number fields and supersingular primes.*

Wong, Cecilia Fung Yee, *A non-classical first order logical system for deductive reasoning.*

Simon Fraser University (5)

MATHEMATICS AND STATISTICS

Das, Salil, *Parameter estimation in oceanographic flows and computation of flows driven by density gradient.*

Ekambaram, Thiru Sambandam, *The Frobenius problem.*

Song, Yuhe, *Some three-dimensional problems in the computational fluid dynamics of shallow areas.*

Yu, Min-Li Joseph, *Tree decompositions of complete graphs.*

Yu, Qinglin, *Factors and factor extensions.*

Université Laval (4)

MATHÉMATIQUES ET STATISTIQUE

Boivin, Sylvain, *Simulation d'écoulements compressibles à nombre de Reynolds élevé.*

Farhloul, Mohammed, *Méthodes d'éléments finis mixtes et volumes finis.*

Guenette, Robert, *Etudes théoriques et numériques du modèle de Leslie-Ericksen pour les cristaux liquides.*

N'Zi, Modeste, *Propriétés asymptotiques de certains champs aléatoires généralisant l'aire de Lévy.*

Université de Montréal (10)

MATHEMATIQUES ET STATISTIQUES

Abbaoui, Salim, *Théorie de points fixes, perturbations et itérations.*

Allaire, Jérôme, *Etude de certaines mesures de liaison entre plusieurs vecteurs aléatoires.*

Bensebah, Ali, *Sur certaines classes d'algèbres non associatives involutives et normées.*

Corvellec, Jean-Noël, *Contribution à la théorie des points critiques.*

Decoste, Hélène, *Séries indicatrices d'espèces pondérés et q-analogues.*

Marchand, Eric, *Estimation de la moyenne multivariée avec contraintes.*

Monga, M., *La méthode du rangement après substitution appliquée à un plan de carrés latins.*

Niyonsenga, Théophile, *Estimation des paramètres d'une population finie en tenant compte de la non-réponse.*

Olivier, Patrick, *Contributions à l'inégalité de Bernstein et une formule de quadrature pour des fonctions entières.*

Watt, Abdoul Ousmane, *Des problèmes extrémaux pour certaines classes de polynômes.*

Université du Québec à Montréal (3)

MATHEMATICS

Constantineau, Ivan, *Calcul combinatoire de séries indicatrices de cycle.*

Lalonde, Pierre, *Contribution à l'étude des empilements.*

Melancon, Guy, *Réécritures dans l'algèbre de Lie libre, dans le groupe libre et dans l'algèbre associative libre.*

University of Alberta (7)

MATHEMATICS

Aiello, Walter Gordon, *Time delay models of population growth with stage structure.*

Chen, Weiyu, *Some inequalities in approximation theory.*

Lin, Xiaodong, *Mathematical analysis of some models in ecology and epidemiology.*

Miao, Tianxuan, *Amenability of locally compact groups, subspaces and sets of invariant means.*

Riley, David Michael, *On nilpotence and dimension in group rings.*

Shen, Zuowei, *Two studies on functions of several variables.*

Yu, Lao Sen, *Positive decaying solutions of nonlinear elliptic problems.*

University of British Columbia (5)

MATHEMATICS

Bermejo-Bermejo, Rodolpho, *Analysis of a Galerkin characteristic.*

Chang, Huakang, *The steady Navier-Stokes problem for low Reynold's number viscous jets.*

Xie, Winston Wenzheng, *A sharp inequality for Poisson's equation in arbitrary domains and its applications to Burger's equation.*

Zangeneh, Bijan, *A semilinear stochastic evolution equation.*

Zhang, Xingru, *Topics on Dehn surgery.*

University of Calgary (4)

MATHEMATICS AND STATISTICS

He, Wenhua, *Some mixed boundary value problems in the linear theory of elasticity.*

Ling, Joseph Ming-Tak, *Amenable and extremely amenable locally compact semigroups.*

Nelson, Wayne H., *Aspects of Ziglin analysis.*

Zhu, Xuding, *Multiplicative structures.*

University of Guelph (1)

MATHEMATICS AND STATISTICS

Ye, Liqian, *Computer simulation studies of lipid surface reactions in blood coagulation.*

University of Manitoba (2)

MATHEMATICS AND ASTRONOMY

Guelzow, Andreas, *Some classes of E-minimal algebras of affine type. Nilpotent squags, P-groups and nilpotent SQS-skeins.*

Teo, Siong Khow, *Congruence lattices of lattices.*

University of Saskatchewan (1)

MATHEMATICS

Schulz, Eckart Robert, *The stable rank of crossed products of sectional C^*-algebras by compact Lie groups.*

University of Toronto (4)

MATHEMATICS

Farenick, Douglas Ronald, *The matricial spectrum and range, and C^*-convex sets.*

Mai, Liem, *The analytic rank of a family of elliptic curves.*

Pravila, David William, *Mathematical analysis of wave propagation in stratified media.*

Sherman, Glen Aldridge, *Allowable decompositions for the doubling paradox.*

University of Waterloo (6)

APPLIED MATHEMATICS

Ma, Philip Kim-Hung, *Similarity solutions to viscous fluid flow problems.*

COMBINATORICS AND OPTIMIZATION

Metzlar, Alice, *Minimum transversal of cycles in intercyclic digraphs.*

Tan, Ruo Yang, *Quadratic programming and isotonic regression: Some efficient algorithms.*

PURE MATHEMATICS

Bigelow, David Carleton, *Enclosings of Latin squares and triple systems.*

Craigen, Robert William, *Constructions for orthogonal matrices.*

Kim, Goansu, *Conjugacy and subgroup separability of generalized free products.*

University of Western Ontario (3)

APPLIED MATHEMATICS

Frank, Gregory William, *Recovering the Lyapunov exponent from chaotic time series.*

Sawchuck, Stephen Peter, *Circular cylinder in axial flow.*

STATISTICS AND ACTUARIAL SCIENCES

Lawry, Katherine, *Topics in spatial sampling and experimental design.*

University of Windsor (1)

MATHEMATICS AND STATISTICS

Van Nguyen, Phu, *Application of complex variables in electromagneticfluiddynamic, magnetofluiddynamic and fluid dynamic flows. Viscoelastic boundary-layer theory.*

Doctoral Degrees Conferred 1988–1989
Supplementary List

The following list supplements the list of thesis titles published in the November 1989 *Notices*, pages 1169–1188, the May/June 1990 *Notices*, page 558, and November 1990, page 1250.

University of Windsor (2)

MATHEMATICS AND STATISTICS

Hamdan, Mohammed Hafiz, *Numerical simulation of flow through porous media.*

Mian, Ijaz U.H., *Statistical analysis of familial correlations.*

Doctoral Degrees Conferred 1989–1990
Supplementary List

The following list supplements the list of thesis titles published in the November 1990 *Notices*, pages 1231–1250, and the May/June 1991 *Notices*, page 419.

California

Stanford University (1)

OPERATIONS RESEARCH

Yao, Jen-Chih, *Generalized quasi-variational inequality and implicit complementarity problems.*

Georgia

University of Georgia (1)

STATISTICS

Su, Kuo-Liang, *Laws of large numbers and failure rate function estimation.*

Indiana

Purdue University (1)

STATISTICS

San Martin, Jaime, *Stratonovich differential equations.*

New York

Syracuse University (1)

MATHEMATICS

Weinstein, Gilbert A., *On rotating black holes in equilibrium in general relativity.*

Canada

University of Windsor (3)

MATHEMATICS AND STATISTICS

Barnwal, Rajesh Kumar, *Analysis of one-way layout of count data.*

Huang, Mei Ling, *D numbers and the D distribution.*

Khan, Khushnood Alam, *MRPP and MRBP rank tests–fourth moment based inference and empirical power performance.*