Doctoral Degrees Conferred

1996–1997

ALABAMA

Auburn University (12)

DISCRETE AND STATISTICAL SCIENCES

Boling, Patricia, *Bowtie algorithm for Steiner triple systems.*

Kirkpatrick, Kimberly, *Small graph decompositions.*

Pike, David A., *Hamilton decompositions of graphs.*

Raines, Michael Edwin, *Embedding partial extended triple systems and partial totally symmetric quasigroups.*

Rinker, Susan Serrano, *Multi two-path designs.*

Wu, Yi-Hong, *Discrete logarithm cryptosystems.*

Yin, Carol Moore, *Generalized Steiner systems.*

MATHEMATICS

DeLucia, Luis Gualberton, *Dense mixed sphere packings and thin mixed sphere coverings.*

Fang, Fengchun, *Positive solutions of a class of boundary value problems.*

Lauer, Susan Denese, *Positive solutions of boundary value problems for nonlinear difference equations.*

Smith, Kerry Dale, *On normality, countable paracompactness and related properties.*

West, Jane Elizabeth Kirchner, *Subgroup transitivity in primary abelian groups.*

University of Alabama, Birmingham (4)

BIOSTATISTICS

Clemons, Traci E., *A nonparametric approach to estimating the overlapping coefficient using the kernel estimating technique.*

Jefferson, Craig, *An analysis for establishing a necessary condition for equivalence in active control clinical trials.*

MATHEMATICS

McRae, David, *Riemann theta functions on degenerate surfaces.*

Widener, Mark Pilgrim, *The topology of Julia sets of exponential maps.*

University of Alabama, Huntsville (1)

MATHEMATICAL SCIENCE

Shi, Xingzhong, *Numerical investigation of the stable nocturnal boundary layer.*

University of Alabama, Tuscaloosa (1)

APPLIED STATISTICS

Balgopal, Ramaswamy, *Applications of the Frobenius norm criterion in multivariate analysis.*

ALASKA

University of Alaska (1)

MATHEMATICAL SCIENCES

Luca, Florian, *The algebra of Green and Mackey functors.*

ARIZONA

Arizona State University (3)

MATHEMATICS

Han, Gil-Jun, *On determinancy and unfolding of degenerate equilibria with a linear part $X' = y$, $y' = 0$.*

Tracogna, Stefania, *A general class of two-step Runge-Kutta methods for ordinary differential equations.*

Vaz, Paul, *On the Hodge Derham theorem for compact flat pseudo-Riemannian N-manifolds.*

University of Arizona (7)

APPLIED MATHEMATICS

Samsonovich, Alexei, *Attractor map theory of the hippocampal representation of space.*

Warrick, Abbie Lynn, *Application of wavelet and Radon based techniques to the internal wake problem in synthetic aperture radar images.*

Wong, Tityik, *Contributions to the theory of stochastic orders.*

MATHEMATICS

Cheng, Yu-Wen, *Endomorphisms of modules over valuation domains.*

Dang, Son Xu, *The C function for affine Kac-Moody algebras.*

El Hadrami, Mohamed Lemine ould, *Poisson algebras and convexity.*

Keisling, John, *Approach to equilibrium for Markovian infinite particle systems with exclusion interaction.*

ARKANSAS

University of Arkansas, Fayetteville (1)

MATHEMATICAL SCIENCES

Teclezghi, Beimnet, *Endomorphisms of symmetric semigroups on a finite set.*

CALIFORNIA

California Institute of Technology (8)

APPLIED MATHEMATICS

Baumstein, Anatoly, *Nonlinear water waves with shear.*

Haroldsen, David, *The numerical calculation of three-dimensional water waves using a boundary integral method.*

Rathinam, Muruhan, *Differentially flat nonlinear control systems.*

Regelson, Moira, *Problem structure/function classification using hidden Markov models.*

MATHEMATICS

Binder, Ilia, *Rotation spectrum of planar domains.*

Jackson, Frances, *Sum-dual characterizations of the translation group on $\mathbb{R}$.*

Kiselev, Alexander, *Absolutely continuous spectrum of one-dimensional Schrödinger operators and Jacobi matrices with slowly decreasing potentials.*

Li, Xuhua, *Some results on projective equivalence relations.*

Claremont Graduate School (4)

MATHEMATICS

Hamza, Hamza Abid-Ali, *Multi-person cooperative games: The nucleoli approach and assignment games.*

Luzardo-Flores, Jose Alberto, *Neural networks for approximation and control of continuous time nonlinear systems.*

Molony, Jeffrey Louis, *Studies in geometric theory: Nonlinear dynamical systems.*

Xiong, Kaiqi, *Analysis of a class of nonlinear dynamical systems and applications to neural networks.*

Stanford University (11)

MATHEMATICS

Abreu, Miguel Tribolet, *Topology of symplectomorphism groups of $S^2 \times S^2$.*

Bayrooti, Afshin, *Volume growth of geodesic balls in simply connected solvable Lie groups.*

Bray, Hubert Lewis, *Isoperimetric surfaces and the Penrose conjecture in general relativity.*

Gritsch, Ursula, *Morse theory for the Yang-Mills functional over equivariant four-manifolds and equivariant homotopy theory.*

Hind, Richard, *Filling by holomorphic disks with weakly pseudoconvex boundary conditions.*

Hoffman, Christopher Eric, *A Markov random field which is K but not Bernoulli and other constructions.*

Lupercio, Ernesto, *Real holomorphic Bott periodicity, loop groups and stabilization of monopoles.*

Roskies, Julie Rina, *The minimal representation of $SO(4,3)$ over a p-adic field.*

Sinha, Dev Prakash, *On the structure of Z/n-equivariant unitary bordism rings.*

Tillinghast, John, *Statistical methods and protein sequence motifs.*

Yakhini, Zohar Hanania, *Billiard approximations for Brownian motion.*

University of California, Berkeley (34)

BIOSTATISTICS

Hogeboom, Charissa Jean, *Studying the relationship between change and initial value in clustered data subject to regression toward the mean.*

Percell, Sandra, *Malani's modified Kaplan-Meier estimator using the Kth nearest neighbor algorithm.*

Rizzardi, Mark, *She loves me, she loves me not: Pondering over an ordinal-valued time series of tropical flowers.*

INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

Kang, Jeenyoung, *A method for target scheduling for semiconductor wafer fabrication based on event-based optimization modeling and discrete event simulation.*

Matanachai, Sittichai, *Balancing objectives for mixed-model paced assembly lines.*

Patankar, Ajit, *Information management in next generation CIM systems.*

Shortle, John, *Physical and mathematical foundations of probabilistic engineering design with application to rotors.*

Tseng, Chung-Li, *On power system generation unit commitment problems.*

MATHEMATICS

Akemann, Peter Tripp, *On a class of endomorphisms of the hyperfinite II_1 factor.*

Alvarez, David, *Bounds for Kakeya type maximal functions.*

Benzel, Steven Michael, *A generalization of BF theory to Lie bialgebras.*

Brock, Jeffrey Farlowe, *Iteration of mapping classes and limits of hyperbolic 3-manifolds.*

Brown, Paul Robert, *The geometry of polygons of groups and related spaces.*

Covert, Paul Michael, *Hydrodynamics limit for a class of monotone lattice particle systems with nonconstant speed parameter.*

Gnerre, Sante, *Free composition of paragroups.*

Habib, Amber, *Direct limits of Zuckerman derived functor modules.*

He, Jian Xun, *A fast stable algorithm for frequency response problems.*

Kahng, Byung-Jay, *Deformation quantization of some non-compact solvable Lie groups and their representation theory.*

Kim, Bumsig, *Gromov-Witten invariants for flag manifolds.*

Kohel, David Russell, *Endomorphism rings of elliptic curves over finite fields.*

Koon, Wang Sang, *Reduction, reconstruction and optimal control for nonholonomic mechanical systems with symmetry.*

Laufer, Raphael Alexandre, *Deformation and cohomology of minimal varieties.*

Mitra, Mahan, *Maps on boundaries of hyperbolic metric spaces.*

Qian, Zhao-Hui, *Groupoids, midpoints and quantizations.*

Rayskin, Victoria, *Degenerate homoclinic crossing.*

Ryan, Philip Donal, *Counting conjugacy classes in symmetric spaces over F_q.*

Selegne, Dylan B., *Minimal dilations of CP maps and a C^*-extension of the Szegö limit theorem.*

Song, Xiangjun, *Algebraic points on curves.*

Upper, Daniel Ray, *Theory and algorithms for hidden Markov models and generalized hidden Markov models.*

Walker, Trent Elliot, *Ergodic theorems for free group actions on Von Neumann algebras.*

Wang, Hong Yun, *A study of short wave instability on vortex filaments.*

Wetherell, Joseph Loebach, *Bounding the number of rational points on certain curves of high rank.*

Wood, Japheth Leo Merlin, *On the undecidability of the type set of a variety.*

Zhu, Hui, *Supersingular abelian varieties over finite fields.*

University of California, Davis (9)

MATHEMATICS

Epstein, Judith Karen, *On the invariants and isotopies of Legendrian and transverse knots.*

Good, Joseph Henry, *Embeddings of $sl(2, C)$ into the ring of differential operators.*

Kimura, Masato, *Commutative algebras of differential operators with matrix coefficients.*

Pilliod, James Edward, Jr., *A second-order unsplit method for modeling flows in two-dimensional compressible flow.*

Stocking, Michelle Marie, *Almost normal surfaces in 3-manifold.*

Truong, Binh Xuan, *Generation of gravitational waves by acoustic wave interactions.*

Winckler, Thomas Koeby, *Stable cohomology of the invariants of the Lie subalgebra LiHn of the Lie algebra of Hamiltonian vector fields.*

STATISTICS

Jones, Geoffrey, *The statistics of multiple immunoassay.*

Watnik, Mitchell, *The modified Cox test for non-nested model selection.*

University of California, Los Angeles (16)

MATHEMATICS

Beineke, Jennifer, *Renormalization of certain integrals defining triple product L-functions.*

Cardona, Fernanda, *Reidemeister theory for maps of pairs.*

Chen, Jung-Kai (Alfred), *Birational geometry of irregular varieties.*

Dehghanpour, Pouria, *Meta stability, nucleation and growth.*

Fioresi, Rita, *Quantum homogeneous projective varieties.*

Li, Archie, *Incompressible Navier-Stokes flow about multiple moving bodies.*

Lum, Christopher, *Exact triangles in Galois cohomology and dihedral group extensions.*

Michailidis, George, *Multilevel homogeneity analysis.*

Morrill, Maria, *Non-existence of compact de Sitter manifolds.*

Petrescu, Mihai, *Existence of continuous families of complex Hadamard matrices of certain prime dimensions and related results.*

Seimetz, Rui, *Reduction mod p of quaternionic Shimura surfaces.*

Sharapov, Ilya, *Multilevel subspace correction for large scale optimization problems.*

Sweet, Ted, *One dimensional spin systems.*

Tazartes, Claudia, *A systematic approach to selecting dualizing functions for use in pseudospectral electron correlation methods.*

Vaysleb, Eduard, *∗-Operations and ∗-representations of cosemisimple Hopf algebras.*

Webster, Corran, *Local operator spaces and applications.*

University of California, Riverside (3)

MATHEMATICS

Tchernov, Vladimir, *Vassiliev invariants of degree one of knots and links in R^1 and S^1 fibrations.*

Wang, Lih-chung, *Divisors on generic hypersurfaces.*

STATISTICS

Ghamsary, Mahmood, *Bayesian meta-analysis via Gibbs sampling.*

University of California, San Diego (7)

MATHEMATICS

Carson, Trevor R., *Logarithmic Sobolev inequalities for the free loop group.*

Cross, Carolyn Mae, *Differentials of measure-preserving flows on path space.*

Deutsch, Reena, *Survival prediction following HIV infection: Interval censored infection times and subsequent cognitive impairment and mortality.*

Howards, Hugh Nelson, *Curves and surfaces in three-manifolds.*

Pollett, Christopher John, *Arithmetic theories with prenex normal form induction.*

Xu, Ronghui, *Inference for the proportional hazards model.*

Yang, Jinghui, *On recursive Boolean algebra.*

University of California, Santa Barbara (4)

MATHEMATICS

Brookfield, Gary John, *Monoids and categories of Noetherian modules.*

Coodey, Mark Raymond, *Examining monotone operators using pictures and convex functions.*

STATISTICS AND APPLIED PROBABILITY

Cho, Hokwon, *Sequential estimation of the number of classes in a multinomial distribution.*

Muni, Adiviti, *Optimal termination testing procedure.*

University of Southern California (7)

MATHEMATICS

Allen, Randall, *Circle packings and conformal characterization.*

Kim, Insook, *Rates of asymptotic regularity for the case of unbounded trajectories.*

Lototsky, Sergey, *Problems in statistics of stochastic differential equations.*

Moon, Kyunghee, *Gauss class groups.*

Murthy, Paresh, *Harmonics, subharmonics and skew product flows in time varying differential equations.*

Piterbarg, Vladimir V., *Expansions and contractions of stochastic flows.*

Tanushev, Miroslav S., *Joint central limit theorem for renewals of competing patterns.*

COLORADO

Colorado School of Mines (5)

MATHEMATICAL AND COMPUTER SCIENCES

Chang, Hong, *An algorithm for solving the ultimate pit problem with spatial consideration and a parallel implementaion.*

Deng, Hongling Lydia, *A complexity analysis of generic optimization problems: Characterizing the topography of high-dimensional problems.*

Fulp, Terrance James, *Formulation and solution strategies for short-term scheduling of power systems research.*

Morey, Christopher, *Dynamically determining search parameters for Monte Carlo optimization.*

Rymes, Martin Dale, *Minimum-curvature C^P surface generation using tin-based piecewise bipolynomials.*

Colorado State University (11)

MATHEMATICS

Hahn, David Williams, *Quadruple covers of algebraic varieties.*

Mohammad, Hassan Mikhlif, *Hopf ideals in a universal Hopf algebra, with applications.*

Scheneider, Kimberly, *Local to global for endomorphisms.*

STATISTICS

Brown, Eileen B., *Tolerance intervals for individual bioequivalence.*

Burch, Brent D., *Confidence intervals and prediction intervals in a mixed linear model.*

Chen, Mei-Jing, *Estimation and inference on noninvertible and nearly noninvertible moving average models.*

Chen, Peide, *Some topics on Markov chains and their applications.*

Lam, Veng Va, *CUSUM control chart with variable sampling scheme.*

Smadi, Mahmoud M., *Bayesian inference of threshold autoregressive moving average models using sample-based methods.*

Terrazas-Gonzalez, Gerardo, *Evaluation of projection methods to predict wetland areas: The wetlands inventory of the USA.*

Wong, Char Ngan, *Population size estimation using the modified Horvitz-Thompson estimator with estimated probabilities.*

University of Colorado, Boulder (3)

MATHEMATICS

Conroy, Mathew, *Bilinear forms on residue classes.*

Hagler, Brian, *A transformation of orthogonal polynomial sequences into orthogonal Laurent polynominial sequences.*

McNamee, John, *On unstable complex James numbers.*

University of Colorado, Denver (5)

MATHEMATICS

Bandy, Victor, *Black box multigrid for convection-diffusion equations on advanced computers.*

Barth, Teri, *Implementation of the conjugate gradient method using short multiple recursions.*

Dean, David, *An analysis of the stochastic approaches to the problems of flow and transport in porous media.*

McKenna, Patricia, *p-competition graphs and p-neighborhood graphs.*

Trujillo, Rick, *Error analysis of the finite volume element method for elliptic and parabolic partial differential equations.*

University of Denver (3)

MATHEMATICS AND COMPUTER SCIENCE

Burt, Andrew, *Algorithmically generating explanations of transformational algorithmic processes.*

Kannan, Rujgopal, *Space-time-wavelength network architectures and optical implementation.*

Moreland, Timothy, *A characterization of imfima for finite dimensional Hilbert space effects.*

University of Northern Colorado (2)

MATHEMATICAL SCIENCES

Isom, Matthew, *The effect of a writing-influenced curriculum on student beliefs about mathematics and mathematics achievement.*

Mingus, Tabitha, *A qualitative and quantitative study examining the effect a conceptual, constructivist approach to teaching linear algebra has on student attitudes and beliefs about mathematics.*

CONNECTICUT

University of Connecticut (10)

MATHEMATICS

Dai, Hong, *Measuring and analyzing volatolity risk in individual income.*

Hill, Sharon, *Numerical and theoretical analysis of the variational formulation of a water wave problem.*

Krog, Karl Peter, *Characterization of balanced and cobalanced Butler groups.*

Pinchbeck, David, *Nondiscrete groups of Möbius transformation.*

Radulovic, Dragan, *The bootstrap for empirical process under dependence.*

STATISTICS

Ghosh, Sujik K., *Modeling and analysis of multiple event survival data.*

Larose, Daniel T., *Bayesian approaches to meta-analysis.*

Lou, Kuo-ren, *Some aspects of Bayesian robustness.*

Qiou, Zuqiang, *Bayesian inference for stable processes.*

Vlachos, Pantelis, *Nonparametric Bayesian clinical trials design for multivariate patient response.*

Wesleyan University (2)

MATHEMATICS

Bassler, Otto Bradley, *d topological entropy and pressure for amenable group actions.*

McGrail, Treacey Baldwin, *Model-theoretic results on ordinary and partial differential fields.*

Yale University (20)

BIOSTATISTICS

Qi, Keqin, *A model for incorporating the unspecified cases into cancer trends by histologic type.*

Stack, Catherine, *Fitting logistic regression models to two-stage case control data using existing methods and Bayesian techniques.*

MATHEMATICS

Aarao, Jorge Oswaldo Gomes, *A transport equation of mixed type.*

Bennett, Nicholas N., *Signal analysis of chirps: Detection, oscillatory kernels, and anisotropic wavelets.*

Beveridge, Andrew John, *Stopping rules and time reversal for finite Markov chains.*

Farag, Hany M., *Some affirmative results towards the Besicovich 1/2-conjecture.*

Gao, Yan, *Superrigidity for isometric group actions on CATH spaces.*

Graham, Stephen Emerson, *An extension of the Kauffman-Mursagi theorem.*

Guglielmi, Ronald Jean Marie, *Wavelet feature definition and extraction for classification and image.*

Hurwood, William Ivin, *System level fault diagnosis under static, dynamic, and distributed models.*

Khovanov, Mikhail Gelilevich, *Graphical calculus, canonical bases and Kazhdan-Lusztig theory.*

Kim, Julee, *Hecke algebras of symplectic groups over p-adic fields and supercuspidal representations.*

Mohlenkamp, Martin James, *A fast transform for spherical harmonics.*

Oh, Hee, *Discrete subgroups generated by lattices in opposite horospherical subgroups.*

Pelloni, Beatrice, *Spectral methods for the numerical solution of nonlinear dispersive wave equation.*

STATISTICS

Fricker, Ronald D., Jr., *Nonparametric control charts for multivariate data.*

Lynch, Kevin, *Mixture detection using oscillation properties of matched densities differences.*

Reuning-Scherer, Jonathan, *Mixture models for block clustering.*

Xie, Qun, *Minimax coding and prediction.*

Xu, Yuewu, *Unidentifiable asymptotic problems.*

DELAWARE

University of Delaware (6)

MATHEMATICAL SCIENCES

Bhore, Rafia N., *Uncertainty analysis in large models.*

Chitra, Rohini, *A two state approach to unbalanced split plot designs.*

Kovacs, Agnes, *The competing risks Weibull model for the strength of single fibers.*

Miller, Jacob, *Finding periodic orbits of maps: Basins of attraction of numerical techniques.*

Pelekanos, George, *Direct and inverse scattering by an elastic inclusion.*

Peratt, Barry, *Mixing powers and scrambling points.*

DISTRICT OF COLUMBIA

George Washington University (3)

MATHEMATICS

Zhang, Jun, *Multigrid acceleration techniques and applications to the numerical solution of partial differential solutions.*

STATISTICS

Bautista, Oliver M., *Analysis of overdispersed Poisson count data.*

Katsis, Athitivassios, *Bayesian optimal designs for binomial experiments.*

FLORIDA

Florida Atlantic University (1)

MATHEMATICS

Zhou, Zhen, *Decay for time dependent Schrödinger equations.*

Florida Institute of Technology (3)

APPLIED MATHEMATICS

Alharbi, Abir, *A neurocomputing approach to solving partial differential equations.*

Richter, Stephen, *System eigenvalue placement by decentralized feedback.*

Wu, Limin, *Regularization methods and algorithms for least squares and Kronecker product least squares problems.*

Florida State University (5)

MATHEMATICS

Berloff, Natalia G., *Solitary and periodic solutions of nonlinear nonintegrable equations.*

Duan, Zhanghui, *Modified cubic lattice model, diamond lattice model, and study loop entanglement of semicrystalline polyethylene.*

Gao, Shangzuo, *Algorithms for determination of embedding dimensions for nonlinear analysis of chaotic time series and a study of fractal dimensions and predictabilities of weather attractors over the eastern United States.*

Shusen, Ding, *Conjugate A-harmonic tensors.*

STATISTICS

Wu, Shau-Ming (Tom), *Asymptotic bounds on the overflow probability in Markov-modulated fluid models.*

University of Florida (3)

INDUSTRIAL AND SYSTEMS ENGINEERING

Angelis, Diana Isaza, *The effect of activity-based costing on traditional operations research models.*

MATHEMATICS

Peterson, Kevin, *The stress spaces of bipartite frameworks.*

Wang, Xibing, *A construction of diffusion processes with reflecting barrier from multidimensional Brownian motion.*

University of Miami (4)

MATHEMATICS AND COMPUTER SCIENCE

Browdy, Anne, *The cohomology of lattices of partitions with restricted block size.*

Garcìa, Felix, *Periodic solutions of a class of fourth-order nonlinear ordinary differential equations.*

Giovinazzo, Alicia, *Conceptual writing and its impact on performance in mathematical processes in college algebra.*

Stine, Jay, *Pre-Hausdorff objects in topological categories.*

University of South Florida (6)

MATHEMATICS

Belyi, Sergy, *Operator-valued R-functions in the theory of linear dynamic systems.*

Dhar, Subhankar, *Probability measures on stochastic matrices.*

Ding, Zouhua, *Contribution to the theory of the existence of zeros of perturbations of nonlinear M-accretive operators in Banach spaces.*

Elnaggar, Mohamed, *Identification of the parameters of a multivariate normal distribution by the distribution of the minimum.*

Rieck, Michael, *Pseudo-orthogonal complementary subspaces and hyperbolic partner graphs.*

Veselov, Vladimir, *A compactification of the Fatou mapping as a dynamical system.*

GEORGIA

Emory University (7)

BIOSTATISTICS

Dunson, David B., *Dose dependent cluster size and implications in quantitative risk assessment.*

Durham, Laura K., *Nonparametric exploration of waning vaccine effects using survival data.*

Sternberg, Maya R., *Discrete time nonparametric estimation for chain of events data subject to interval censoring and truncation.*

MATHEMATICS AND COMPUTER SCIENCE

Fuller, Allen George, *On $[K_{1,3}, Z_2]$-free graphs.*

Goddard, Edward (Ted) Wayne, *Ordered sets: Colorings and complexity.*

Thoma, Lubos, *Essays in extremal combinatorics.*

Vysotina, Victoria, *Generalized solution of the boundary-value problem on S^n for polyhedrons with prescribed integral curvature.*

Georgia Institute of Technology (4)

MATHEMATICS

Dai, Wanyang, *Brownian approximations for queuing networks with finite buffers: Modeling, heavy traffic analysis and numerical implementations.*

LaDue, Mark Douglas, *Quantization error problems for classes of trigonometric polynomials.*

Leeds, Kevin Nathaniel, *Dilation equations with matrix dilation.*

Venkatagiri, Shankar, *The peak-crossing bifurcation in lattice dynamical systems.*

University of Georgia (7)

MATHEMATICS

Grantham, Jon, *Frobenius pseudoprimes.*

Smead, David, *Homeomorphisms of three-manifolds containing genuine laminations.*

Yin, Huasong, *Deformation of special subvarieties of divisors associated to double covers of genus three curves.*

Zhang, Hong, *Asymptotic analyses of Levy flow.*

STATISTICS

Li, Shoayi, *Statistical methodology in dose-response study.*

Williams, Gigi, *Test of homogeneity of AIDS cases and estimation of the incubation period with interval censored data.*

Zheng, Shen, *Estimation of product of means and some queueing system performance measures.*

HAWAII

University of Hawaii (1)

MATHEMATICS

Sun, Bohao, *Stratifications and sufficiency of weighted jets.*

IDAHO

Idaho State University (2)

MATHEMATICS

Molinsky, Michael, *Math outside the math department: Is it inevitable?.*

Pringle, Brian Craig, *Splines.*

University of Idaho (4)

MATHEMATICS

Bloomsburg, Pete, *A refinement of the Erdös-Szekeres theorem.*

Meerdink, Ken, *An unavoidable tangle approach for the Kawauchi-Nakanishi conjecture.*

Sabo, Dusty, *Multiple transverse matchings and skewered matchings.*

Stockett, Samuel, *A symmetry based decomposition and topologies of fuzzy numbers.*

ILLINOIS

Northern Illinois University (4)

MATHEMATICAL SCIENCES

Diamantopoulos, John C., *The asymptotic form of the Titchmarsh-Weyl M-lambda function.*

Hetti-Arachchige, Chandanie, *On numerical solutions of the Sylvester-observer equation, and the multi-input eigenvalue assignment problem.*

Klanderman, David B., *Preservice teachers' levels of understanding variables and functions within multiple representational modes.*

Lin, Tsair-Chuan, *Nonparametric regression with time series errors.*

Northwestern University (10)

INDUSTRIAL ENGINEERING AND MANAGEMENT SCIENCE

Biller, Stephan, *Evaluation and selection of projects in decentralized production/distribution systems.*

Dutta, Goutam, *A multi-period optimization based decision support system for strategic and operational planning.*

Kim, Eungab, *Stochastic scheduling for manufacturing systems.*

Melkote, Sanjay, *Integrated models of facility location and network design.*

Stubbs, Robert, *Branch and cut methods for mixed 0-1 convex programming.*

Summers, Gary, *Industrial dynamics: An evolutionary model for an interactive simulation.*

MATHEMATICS

Fiske, Michael, *Non-autonomous systems applicable to neural computation.*

Li, Ming-Chia, *Structural stability for numerical methods.*

Pemmaraju, Satyanarayana, v_2-periodic homotopy at $p = 3$.

STATISTICS

Chiu, Yi-Lin, *Measures of association and regression models for ordinal variables.*

Southern Illinois University, Carbondale (2)

MATHEMATICS

Barham, Abdelrahim M., *Robust confidence intervals for functions of variances and variance components.*

Xie, Songfeng, *Approximation by bivariate splines with minimal support.*

University of Chicago (14)

MATHEMATICS

Guiduli, Barry Danzero, *Spectral extreme for graphs.*

Gurevich, Alex, *Boundary regularity for free boundary problems.*

Haase, Mark M. Christopher, *Extra smoothness conditions for the wave equation.*

Han, Bing, *On Bloch-Kato conjecture of Tamagawa number for Hecke characters of imaginary quadratic field.*

Maltenfort, Michael, *Addition and subtraction of ideals.*

Mandell, Michael, E_∞ *algebras on p-adic homotopy theory.*

Marcolli, Matilde, *Three-dimensional aspects of Seiberg-Witten gauge theory.*

Tamvakis, Haralampos, *Arithmetic intersection theory on flag varieties.*

Wang, Dehua, *Initial boundary value problems for nonlinear Euler-Poisson equations.*

Wu, Jiahong, *The inviscid limits for individual and statistical solutions of the Navier-Stokes equation.*

STATISTICS

Fang, Dongping, *Modeling the correlation structure of the TOMS ozone data and lattice sampling design for isotropic random fields.*

Lazar, Nicole A., *Some inferential aspects of empirical likelihood.*

Picka, Jeffrey David, *Variance-reducing modifications for estimators of dependence in random sets.*

Pluzhknikov, Anna, *Statistical inference in population genetics.*

University of Illinois, Chicago (14)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Cheng, Hansheng, *Median unbiasedness inference in finite population sampling.*

Crigler, Hairong, *Confidence intervals for finite population quantile intervals.*

Dang, Yumei, *Hypercomplex iterations distance estimation for generalized Mandelbrot sets.*

Fabijonas, Bruce, *Secondary instabilities of linear flows with elliptic streamlines.*

Hewitt, Beatrice, *On the homotopical classification of KO-module spectra.*

Krebes, David, *An obstruction to embedding A-tangles in links.*

Martinelli, Eloy, *Exponential instabilities of axisymmetric vortex rings with swirl.*

Park, Henry, *Optimality of selection procedures.*

Qian, Zhongqiang, *Cyclic codes over Z_4.*

Siadat, Mohammad Vali, *Building study and work skills in a college mathematics classroom.*

Sorgo, Teodore, *Volumes of hyperbolic Haken manifolds.*

Su, Guoqin, *On the existence and construction of difference schemes and orthogonal arrays.*

Xiang, Niandi, *Normal estimates of Banach based valued random series and their applications in harmonic analysis.*

Zhang, Qinglong, *A unified framework for iconic indexing of spatial relationships.*

University of Illinois, Urbana-Champaign (21)

MATHEMATICS

Balanzario-Gutierrez, Eugenio Pacelli, *On Beurling's theory on generalized numbers.*

Bauer, Robert Otto, *Martingales in filtering and geometry.*

Chappell, Glenn G., *Optimization on products of combinatorial structures.*

Chen, Chien-Hsiung, *Worked products of metric spaces of curvature bounded from above.*

Dai, Mingde, *Dynamics of iterated functions systems: Hausdorff dimension and related topics.*

Fitzgerald, Kevin Francis, *Double cross-products of Hopf* *algebras, discrete quantum groups and amenable groups.*

Folguera, Alejandra, *Second and third order systems of integrable equations of the Davey-Stewtson type.*

Hu, Zhu-Xin, *On Tait's color-tiling problem.*

Huang, Sen-Shan, *On the Rogers-Ramanujan and Ramanujan-Göllnitz-Gordon continued fractions.*

Kotlica, Sonja, *Verification of Dade's conjecture for Janko group J_3.*

Lee, Jui-Lin, *Count and tree in uniform NC^1.*

Niamsup, Piyapong, *Julia sets and symbolic dynamics of certain rational and entire functions.*

Parra, Carlos Mario, *Uniformity and bounded arithmetic below P.*

Rohde, Gareth Scott, *Alternating automata and temporal logic of ordinals.*

Speissegger, Patrick Urs, *The field of reals with Gevrey functions is model complete and 0-minimal.*

Stajner, Ivanka, *Baker's transformation.*

Woerheide, Arthur Anderson, *0-minimal homology.*

STATISTICS

Jiang, Hai, *Applications of computational statistics in cognitive diagnosis and IRT model.*

Tsukahara, Hideatsu, *Weak convergence and the prediction process.*

Wu, Hongsheng, *Some issues in item response theory.*

Zhang, Jinming, *Some fundamental issues in item response theory with applications.*

INDIANA

Indiana University (8)

MATHEMATICS

Gloor, Philip, *Oscillatory singular integral operators on Hardy spaces.*

Kovac, Raimundo, *Composition operators in Lorentz spaces.*

Kwong, Chi-Shun, *Mapping cones construction and Golod pairs.*

Lee, Kisuk, *Some homological invariants over local rings.*

Ni, Hongjie, *Some numerical methods for Vlasov equations.*

Rosa, Ricardo, *Attractors for weakly dissipative equations. Inertial manifolds and normal hyperbolicity. Approximate inertial manifolds of exponential order.*

Wang, Xiaoming, *Asymptotic behavior of solutions to the Navier-Stokes equations at large time and/or small viscosity.*

Ziane, Mohammed, *Asymptotic analysis of the Navier-Stokes equations. Applications to climatology.*

Purdue University (24)

INDUSTRIAL ENGINEERING

Brady, Thomas F., Jr., *Prescriptive simulation: A heuristic approach.*

Kleywegt, Anton, *Dynamic and stochastic models with freight distribution applications.*

Warren, Graeme M. H., *Analysis of some fluid models and a queueing network analyzer for polling systems.*

MATHEMATICS

Cha, Youngjoon, *Existence, uniqueness and stability change of endemic states for the age-structured S-I-R epidemic model.*

Chang, Shih, *The inverse problems of 3-D wave equations.*

Gooransarab, Haedeh, *Upper estimate for characteristic exponent of polynomials.*

Ho, Mark, *Spectral property of slant Toeplitz operators.*

Hu, Zhenjun, *Extension problems for biholomorphisms in several complex variables.*

Hunt, Karen, *Linking numbers for algebraic cycles through isolated singularities.*

Konrad, Thomas, *Local connectedness of some Julia sets.*

Le, Anbo, *CR circle bundles and Mizohata structures.*

Lindeman, Arthur John, II, *Martingales, the Beurling-Ahlfors transform, and lower bounds for ground state eigenfunctions.*

Nhieu, Duy-Minh, *The extension problem for Sobolev spaces on the Heisenberg group.*

Olesen, Victor, *Weighted norm-inequalities for convolution-type operators and one-sided maximal functions.*

Romero, Jose, *Extension of CR structures for noncompact CR manifolds.*

Xiang, Guang Ping, *On the location of critical points for polynomials.*

Yuan, Jinyong, *Hölder estimates for the CR extension problem.*

Zhang, Qi, *Linear parabolic equations with singular lower order coefficients.*

STATISTICS

Gao, Xiaobo (Shelby), *Statistical applications of wavelets in time series.*

Rodenberg, Cynthia, *Correcting for verification bias in ROC estimation with covariates.*

Shui, Chimei, *Default Bayesian analysis of mixture models.*

Shyamalkumar, Nariankadu Datatreya, *Contributions to Bayesian nonparametrics and Bayesian robustness.*

Tanaydin, Suat, *Multivariate quality control problems.*

Zhang, Hangping, *Change-point and decreasing hazard rate.*

University of Notre Dame (8)

MATHEMATICS

Biewer, David M., *Blowup rate of the solution of a general parabolic equation with a nonlinear boundary condition.*

Jung, Eun-Kyoung, *Holomorphic curves in projective varieties.*

Kamath, Padmini, *Unstable normal maps on an open manifold without boundary.*

Kim, Byunghan, *Simple first order theories.*

McAllister, Alex, *Computability in structures representing a Scott set.*

Vajiac, Bogdan, *An end theorem for stratified spaces.*

Vassiliadou, Sophia, *Homotopy formulas for 'a' and subelliptic estimates for the 'a'-Niemann problem.*

York, Eric Von, *Algebraic description and construction of error correcting codes, a systems theory point of view.*

IOWA

Iowa State University (6)

MATHEMATICS

Kwon, Soon-Geol, *High accuracy wavelet-Galerkin methods.*

Reich, Pamela, *Complex algebras of semigroups.*

STATISTICS

Kirchoff, Thomas James, *Statistical analysis of maintenance growth curves.*

Lee, Jaehyung, *Specification of dependence structures and simulation-based estimation for conditionally specified statistical models.*

Pelkey, Jean Elizabeth, *Nonlinear measurement error analysis for system monitoring.*

Symanzik, Jürgen, *Timed data flow diagrams.*

University of Iowa (12)

APPLIED MATHEMATICAL AND COMPUTATIONAL SCIENCES

Adkins, Frederick A., *Numerical continuation and bifurcation methods for mechanism workspace and control analysis.*

Dittmar, Robert, *Dynamic economies with nonconvexities.*

Lesaja, Goran, *Interior-point methods for P^*-complementarity problems.*

Xu, Li Na, *Optimization methods for computing empirically constrained extremal probability distributions.*

MATHEMATICS

Chen, Shutao, *Orlicz spaces and fixed point theory.*

Colasante, Maria Luisa, *Vector-valued free uniform measures.*

Draayer, Dean, *Translation planes admitting one-third full homology groups.*

Ji, George Yao, *Cowen Douglas theory on Hilbert C^*-modules.*

Liu, Xiaobin, *Flocks and partial flocks in $PG(3, K)$.*

Othman, Saib Mesleh, *Analyticity of solutions of a certain class of parabolic-hyperbolic system of differential equations.*

Quintero, Roy, *Some generalizations of GCD-domains.*

Yan, Rixin, *On monoids of Lie type.*

KANSAS

Kansas State University (6)

MATHEMATICS

Ayyad, Anwar, *The distribution of solutions of the multiplication congruence $x_1 x_2 x_3 \cdots x_n \equiv c \pmod{p}$.*

Munshi, Idris, *Almost orthogonality properties of mixed characters.*

Zerger, John, *Rank 2 amalgams with critical distance one and failure-of-factorizations modules.*

STATISTICS

Al-Zaid, Munther, *Iterative two-stage procedures for fitting mixed effects models.*

Bond, Marjorie, *Using prior knowledge of the intraclass correlation to increase the power of hypothesis tests for treatment means.*

Sherfey, Brian, *Near replicate clustering criteria for nonreplicated regression lack of fit tests.*

University of Kansas (3)

MATHEMATICS

Gao, Ai Jun, *New approaches in continuous-time stochastic adaptive control.*

Stanley, Adrienne, *D-spaces and a Dowker space.*

Wang, Zhennong, *Neural network for identification and control of stochastic systems.*

Wichita State University (3)

MATHEMATICS AND STATISTICS

Elayyan, Aleaddin, *Some inverse problems in parabolic PDE.*

Kadakal, Ercan, *On the successive approximation of solutions to some elliptic free boundary problems.*

Lissianoi, Serguei, *Some mathematical problems of tomography and radiation treatment.*

KENTUCKY

University of Kentucky (16)

MATHEMATICS

Dorff, Michael, *The inner mapping radius and construction of harmonic, univalent mappings of the unit disk.*

Hebble, Robert, *Hamiltonicity of squeezed spheres.*

Robertson, Robert, *An inverse boundary value problem in linear elasticity.*

Schueller, Albert, *Eigenvalue asymptotics for self-adjoint, fourth-order, ordinary differential operators.*

Schueller, Laura, *Pairs of quadratic forms over arbitrary fields.*

Tolle, John, *Location of inhomogeneities in elastic media.*

Tung, Stewart, *Monge, optimality, and feasibility sequences in capacitated transportation problems.*

Vandenhouten, Ronald, *Stability for the biharmonic and polyharmonic obstacle problems.*

Xu, Jinzhong, *Flat covers of modules.*

Yi, Okyeon, *Local nilpotence of envelopes and universal enveloping algebras.*

STATISTICS

Chen, Yeh-Ling, *The nonlinear least trimmed squares regression estimator.*

Gibson, Onecia M., *Influence measures for multivariate analysis.*

Johnson, Joel A., *Parameter estimation in stochastic compartmental models: The NIMCEM algorithm.*

Ma, Zhenxu, *Likelihood estimation for mixture models via the EM algorithm.*

Mehra, Munish, *Proportional hazards in surviving fractions model.*

Mendiondo, Marta S., *Approximation of infinite-dimensional linear programming problems.*

LOUISIANA

Louisiana State University, Baton Rouge (9)

MATHEMATICS

Colwell, Nancy, *Some lifting problems in arithmetic equivalence.*

Cook, Darwyn, *A Müntz-Szasz theorem for nilpotent Lie groups.*

Fitzgerald, Jeanne, *Applications of Gröbner bases to linear codes.*

Guissé, Amadou B., *Lie theory of differentiable transformations on branch type manifolds.*

Kim, Joehoo Park, *A polynomial invariant of links in a solid torus.*

Leo, John William, *Matroid connectivity.*

Lim, Yongdo, *Jordan algebras and Lie semigroups.*

Natov, Jonathan Paul, *Pure framed braids and 3-manifolds.*

Stevens, Wayne, *On the homology of branched cyclic covers of knots.*

Tulane University (2)

MATHEMATICS

Bottino, Dean, *An immersed boundary model of ameboid deformation and locomotion.*

Hanlon, Bryce, *An interpretation of the n-th Leech cohomology group.*

University of Southwestern Louisiana (7)

MATHEMATICS

Chen, Ching-Hao, *A comparison of model selection methods for nonnested normal linear models.*

Lim, Wooi, *Some second order decision theoretic results on correlation estimation.*

Lin, Jyh-Jiuan, *Some results on improved normal mean vector estimation.*

Moore, Brett, *On combining studies in linear models: Regression and calibration.*

Pannala, Maruthy, *Testing and confidence estimation of a normal mean vector with imcomplete data.*

Semel, James Scott, *Determining the inhomogeneity in Poisson's equation from incomplete Dirichlet boundary conditions: Applications in the neurosciences.*

Yuen, Shuk-Yan Irene, *Blow-up and quenching for nonlinear parabolic problems.*

MARYLAND

Johns Hopkins University (11)

BIOSTATISTICS

Chen, Hongzi, *Effect of ignoring randomization constraints in the analysis of clinical trials.*

Hilton, Sterling C., *Longitudinal analysis of visual fields.*

Mellen, Beverly G., *Statistical reasoning about DNA evidence in human identification problems.*

MATHEMATICAL SCIENCES

Kleinman, Nathan, *Stochastic approximation algorithms: Theory and application.*

Levin, Gregory, *Selected topics in fractional graph theory.*

Lo, Grace, *Complementarity problems in robotics.*

Sabin, Glenn, *Facility location with forbidden regions.*

MATHEMATICS

Abrams, Lowell, *Frobenius algebra structures in topological quantum field theory and quantum cohomology.*

Cowen, Dena, *The homology of the spectrum bo and its connective covers.*

Kwon, Soonhak, *Torsion subgroups of elliptic curves over number fields.*

Yamauchi, Takayuki, *On the existence and uniqueness of complete isometric constant mean curvature imbeddings in the hyperbolic space.*

University of Maryland, Baltimore (5)

MATHEMATICS AND STATISTICS

Chattopadhyay, Arghya, *Estimation of the accuracy of normal observations.*

Li, Dayong, *On some applications of ranked set sampling in statistical inference.*

Oberle, William F., *An analysis of traveling wave solutions for a laminar-flame combustion model in a stratified-reacting material.*

Sharma, Manoj K., *Multiple use and simultaneous confidence regions in calibration.*

Zhang, Detong, *Infeasible interior-point method for linear complementarity problems.*

University of Maryland, College Park (18)

MATHEMATICS

Alvarez, Sergio Andres, *Interface motion by curvature and diffusion.*

Barnett, John, *Zero-crossings of non-Gaussian processes with applications to estimation and detection.*

Crook, Sharon, *The role of delay in oscillatory models of olfactory cortex.*

Dodd, Jeffrey, *Convective stability of shock profile solutions of a modified KdV-Burgers equation.*

Fokianos, Konstantinos, *Categorical time series: Prediction and control.*

Galitzer, Amy, *On the moduli space of closed polygonal linkages on the 2-sphere.*

Hsieh, Po-Hsun, *Submanifolds of Kahler manifolds and their normal bundles.*

Kapovitch, Vitali, *Convergence of manifolds with lower curvature bound.*

Kolda, Tamara Gibson, *Limited-memory matrix methods with applications.*

Lu, Shing-Liang, *A convection-diffusion problem with tangential characteristic curves.*

Ormes, Nicholas, *Strong orbit realization for minimal homeomorphisms.*

Pierce, David, *On the model theory of function fields.*

Previte, Joseph, *Graph substitutions.*

Rowe, Errol, *Probabilistic approach to a class of partial differential equations systems.*

Sovereign, Brett, *Nilpotent isometry groups of compact hyper Lorentz manifolds.*

Wang Li, Emei, *Studies of an elliptic inverse boundary value problem and applications to defect determination.*

Wang, Weichung, *Iterative methods in interior point algorithms for linear programming.*

Xia, Eugene Zhu, *The moduli of flat $PGL(2, R)$ structures on Riemann surfaces.*

MASSACHUSETTS

Boston University (5)

MATHEMATICS

Campbell, Duff, *Einstein series, Dedekind symbols and p-adic L-functions.*

Chiu, Amy Hui-Lin, *Quartic Newton's method and matings of polynomials.*

Russell, Heidy Kwan, *Robustness and power of one-step analysis versus two-step analysis applied to multiple endpoints data.*

Teodorescu-Frumosu, Mihail Antonio, *Mathai-Quillen formalism and Lefschetz theory.*

Teverovsky, Vadim, *Detection and estimation of long range dependence.*

Brandeis University (5)

MATHEMATICS

Dworkin, Morris, *Generalizations of rook polynomials.*

Hiss, Karin, *Degree of orbits and linear slices.*

Klucznik, Michael, *Exact sequences of Schur complexes.*

Leibman, Leonard, *p-adic lattices in representations of $PGL(2, Z_p)$.*

Peng, Hua, *Matrix models, Toda lattice and random matrices.*

Clark University (1)

MATHEMATICS AND COMPUTER SCIENCE

Chang, Jun, *Zeta functions attached to irreducible representations of classical groups over finite fields.*

Harvard University (36)

BIOSTATISTICS

Anderson, Janet, *Missing outcomes in clinical trials: Considerations for failure-time and longitudinal data.*

Boucher, Hélène, *Design and analysis of group sequential clinical trials with survival data.*

Chen, Li, *Statistical methods for the analysis of correlated observations.*

Daskalakis, Constantine, *Analysis of categorical data in psychiatric epidemiological studies.*

Goggins, William, III, *Monte Carlo EM methods for analyzing survival data in the presence of interval censoring.*

Higgins, Karen, *Statistical methods for nonlinear models with measurement error with application to pharmacokinetics and calibration in immunoassay.*

Kim, Soyeon, *Covariates in survival studies, topics in design and analysis.*

Kleinman, Kenneth, *Applications of Markov chain Monte Carlo to longitudinal repeated measures: Missing data and semi-parametric effects models.*

Liang, Qing Jane, *The proportional hazards model and interval-censored data.*

Okamoto, Akiko, *Penalized likelihood estimation for censored data models and investigation of likelihood methods for nonignorably missing data.*

Scharfstein, Julie Alpher, *Cost-effectiveness analysis and aids: Methods and application.*

Zeng, Qi, *Topics in calibration inference for immunoassay.*

ENGINEERING AND APPLIED SCIENCES

Bassiri, Farid G., *Random walks on finite groups with multiplicity two.*

Epstein, Russell A., *Learning object representations from greyscale images.*

Gaudet, Samuel, *Extensional dynamics of liquid bridges and filament stretching devices.*

Hu, Yu, *Efficient data parallel implementations of highly irregular problems.*

Jewett, Megan E., *Models of circadian and homeostatic regulation of human performance and alertness.*

Lau, Tak Wing, *Probability models and selection methods for stochastic optimization.*

Lee, Lillian J., *Similarity-based approaches to natural language processing.*

Nakatani, Christine H., *The computational processing of international prominence: A functional prosody perspective.*

Shalaby, Nadia, *Fast parallel orthogonal transform.*

MATHEMATICS

Chen, Xi, *Rational curves on K3 surfaces.*

Conrad, Keith, *p-adic gamma functions.*

Fulman, Jason, *Probability in the classical groups over finite fields: Symmetric functions, stochastic algorithms, and cycle indices.*

Grinberg, Mikhail, *A generalization of Springer theory using nearby cycles.*

Loke, Hung Yean, *Exceptional Lie groups and Lie algebras.*

Lulov, Nathan, *Random walks on the symmetric group generated by conjugacy classes.*

Ofer, Adi, *Abelian L-functions twisted by algebraic tori at s = 0.*

Pak, Igor, *Random walks on groups: Strong uniform time approach.*

Scanlon, Thomas, *Model theory of valued D-fields.*

Stankova-Frenkel, Zvezdelina Entcheva, *Moduli of trigonal curves.*

Turetsky, James, *Short time behavior of logarithmic derivatives of the heat kernel.*

Vakil, Ravi, *Enumerative geometry of curves via degeneration methods.*

Vishik, Alexander, *Integral motives of quadrics.*

STATISTICS

Thurston, Sarah, *Error analysis of food stamp microsimulation models.*

Wu, Yingnian, *Modeling general mixture components, with application to schizophrenic eye-tracking.*

Massachusetts Institute of Technology (25)

MATHEMATICS

Andrews, Daniel Matthew, *Scheduling techniques for packet routing, load balancing and disk scheduling.*

Benczúr, András, *Cut structures and randomized algorithms in edge-connectivity problems.*

Bona, Miklos, *Exact and asymptotic enumeration of permutations with subsequence conditions.*

Christensen, John Daniel, *Ideals in triangulated categories: Phantoms, ghosts and skeleta.*

Colthurst, Thomas Wallace, *Multidimensional wavelets.*

Gagné, Mathieu, *Compactified Jacobians of integral curves with double points.*

Ingalls, Colin James, *Deformations of orders.*

Kucan, Jakov, *Metatheorems about convertibility in typed lambda calculi: Applications to CPS transform and "free theorems".*

Laures, Gerd, *The topological q-expansion principle.*

Metzler, David Scott, *Topological invariants of symplectic quotients.*

Patrick, David Michael, *Noncommutative ruled surfaces.*

Postnikov, Alexander E., *Enumeration in algebra and geometry.*

Taylor, Brian David, *Generalized straightening laws for products of determinants.*

Vasy, Andras, *Propagation of singularities in three-body scattering.*

Vaynblat, Dimitri, *The strongly attracting character of large amplitude nonlinear resonant acoustic waves without shocks. A numerical study.*

Wang, Jianhua, *Equivariant resolution of singularities and semistable-reduction in characteristic 0.*

Wolf, Ethan, *Statistical prediction schemes for the coiled-coil motif.*

Wolfgang, Harry Lewis, III, *Two interactions between combinatorics and representation theory: Monomial immanants and Hochschild cohomology.*

Yan, Catherine Huafei, *The theory of commuting Boolean algebras.*

Zanger, Daniel Zvi, *Regularity and boundary variations for the Neumann problem.*

Zhang, Yihao Lisa, *An analysis of network routing and communication latency.*

OPERATIONS RESEARCH

Christodouleas, James D., *Solution methods for multiprocessor network scheduling problems with application to railroad operations.*

Miller, Michael G., *Optimal allocation of resources to clinical trials.*

Patterson, Sarah, *Dynamic flow management problems in air transportation.*

Teo, Chung-Piaw, *Constructing approximation algorithms via linear programming relaxations: Primal dual and randomized rounding techniques.*

Northeastern University (8)

MATHEMATICS

Al-Jasem, Waleed, *On using struction in computing the stability number.*

Du, Xi, *On isometric immersions of space forms in space forms.*

Green, Michael, *Lê cycles on analytic spaces.*

Lang, David, *Adjacency codes of graphs: Weights, dimensions, representations.*

Noel, Alfred, *Nilpotent orbits and stable parabolic subalgebras.*

Rausch, Randall, *The kite method for accelerating vortex method solutions of Euler's and Navier-Stokes' equations.*

Sadaka, Hanai, *Maximization of empirical Shannon information in testing significant variables of linear model.*

Shulman, Laura, *A statistical characterization of the concentration fluctuations due to turbulence in a circular jet.*

Tufts University (2)

MATHEMATICS

Qian, Jinghua, *The p-variation of partial sum processes and empirical processes.*

Zhang, Zhenhua, *Permutations and dynamics on the interval.*

University of Massachusetts, Amherst (2)

MATHEMATICS AND STATISTICS

Berglund, Jan-Olof Jorgen, *Energy minimizing surfaces in various 3-manifolds.*

Blau, Philip, *Lie isomorphisms of prime rings.*

Worcester Polytechnic Institute (1)

MATHEMATICAL SCIENCES

Kimball, Lucia, *Optimal unit commitment and economic dispatch with transmission and energy constraints.*

MICHIGAN

Michigan State University (12)

MATHEMATICS

Flowers, Neil Henry, *Core-free maximal subgroups of locally finite groups.*

Foreman, Brendan J., *Variational problems on complex contact manifolds with applications to twistor space theory.*

Ionel, Eleny-Nicoleta, *Genus one enumerative invariants in P^n.*

Jiao, Hengli, *Global existence and blow-up of solutions to nonlinear wave equations.*

Liu, Ruifeng, *The asymptotic behavior of stochastic evolution equations.*

Park, Jongil, *Seiberg-Witten invariants of rational blow-downs and geography problems of irreducible 4-manifolds.*

Tjani, Maria, *Compact composition operators on some Möbius invariant Banach spaces.*

Yang, Xiaozhuo, *A scalable algorithm for non-symmetric eigenvalue problem.*

Zhang, Yingjie, *Hausdorff dimension of invariant sets for expanding and hyperbolic systems.*

Zhao, Xinming, *Regularity and stability for periodic solutions of nonlinear Klein-Gordon and Schrödinger equations.*

STATISTICS AND PROBABILITY

Qian, Lianfen, *Parameter estimation in non-linear time series: Random coefficient autoregressive and self-exciting threshold models.*

Yuan, Chao, *Uniform behavior of stochastic approximation methods.*

University of Michigan, Ann Arbor (26)

BIOSTATISTICS

Lunetta, Kathryn, *Models and experimental design for radiation hybrid mapping.*

Yang, Ilsoon, *Latent class marginal models for the analysis of cross-classified categorical data.*

INDUSTRIAL AND OPERATIONS ENGINEERING

Allen, Theodore Tetrault, *Optimal design of experiments for parameter design and/or finite element analysis.*

Chen, Wei-Wang, *Managing variation in chemical batch processes.*

Donohue, Christopher J., *Stochastic network programming and the dynamic allocation problem.*

Murray, John, *Hortatory operations the colloquium: Modeling a human-machine system using knowledge engineering techniques.*

Sobek, Durward Kenneth II, *Core beliefs that shape product development systems; explaining Toyota and Chrysler differences.*

Tsung, Fu-Gee, *Run-to-run proportional integral-derivative control and monitoring schemes.*

Yen, Chih-Kuan, *New strategies for device dispatching in trip-based material handling systems.*

MATHEMATICS

Allen, Seth W., *On nonsingular, cyclide transition surfaces.*

Belcastro, Sarah-Marie, *Picard lattices of families of K3 surfaces.*

Bidigare, T. Patrick, *Hyperplane arrangement face algebras and their associated Markov chains.*

Ciucu, Mihai A., *Perfect matchings, spanning trees, plane partitions and statistical physics.*

Comar, Timothy D., *Hyperbolic Dehn surgery and convergence of Kleinian groups.*

Gore, Henry A., *Permutation models and forcing extensions.*

Kantor, Michael J., *SL(2,7) subgroups of E8(C) and their actions on a maximal torus.*

MacCrimmon, Brian C., *Strong F-regularity and boundedness questions in tight closure.*

Martin, Gregory G., *The distribution of prime primitive roots and dense Egyptian fractions.*

McDermott, Moira A., *Tight closure, plus closure and Frobenius closure in cubical cones.*

Nair, Arvind N., *Weighted cohomolgy of arithmetic groups.*

Olsen, Peder A., *Negative eigenvalues of the Schrödinger equation: An approach through fractional integration and Morrey spaces.*

Pant, Vijay, *On I. Symmetry breaking under perturbations and II. Relativistic fluid dynamics.*

Szaro, John P., *Isotropy of semisimple group actions on manifolds with geometric structure.*

Treatman, Stefan G., *Euclidean systems.*

STATISTICS

Lu, Hong, *Inference for acceleration transforms in stress testing with applications to models based on reliability kinetics.*

Meyer, Mary, *Shape restricted inference with applications to nonparametric regression, smooth nonparametric function estimation, and density estimation.*

Wayne State University (2)

MATHEMATICS

Chen, Ciping, *On matching factors of graphs.*

Shao, Yongheng, *Nonsmooth sequential analysis in infinite dimensions: Theory and applications.*

Western Michigan University (6)

MATHEMATICS AND STATISTICS

Cheung, Daniel, *Estimating IBNR reserves with robust statistics.*

Emerson, Allen, *Gender discourse in small learning groups of college-level developmental mathematics students.*

Hansen, Lisa, *Domination in digraphs.*

Terpstra, Jeffrey, *A robust estimate for an autoregressive time series.*

Vandell, Robert, *Integrity of digraphs.*

Wang, Mei, *Statistics graphics: Applications to the R and GR methods in linear models.*

MINNESOTA

University of Minnesota, Minneapolis (20)

BIOSTATISTICS

Kwak, Minjung, *Exact and asymptotic tests for multiply-matched case-control studies.*

Ma, Zhenfang, *Stochastic process models for partially censored data, with applications to end-stage renal disease.*

Sengupta, Anjana, *Analysis of longitudinal binary data.*

Shen, Wei, *Triple-threat estimates.*

MATHEMATICS

Bae, Hyeong Ohk, *Dynamics of evolutionary equations under time discretizations.*

Bailey, Guy David, *Tilings of zonotopes: Discriminantal arrangements, oriented matroids and enumeration.*

Hagen, Aaron, *The dynamics of time discretizations.*

Kinney, William, *Oscillations in singularly perturbed systems and the Conley index.*

Liao, Jie, *Zero-one laws for random and non-random environments.*

Liou, Lii-Perng, *Geometric flows on compact manifolds.*

Mitrea, Dorina Irena-Rita, *Layer potential operators and boundary value problems for differential forms on Lipschitz domains.*

Nien, Chia-Hsing, *The investigation of saddle node bifurcation with a zero eigenvalue – includes example of non-analyticity.*

O'Loughlin, Daniel J., *Non-linear curve flows in the plane.*

Shih, Xiaolong, *Microstructures and numerical simulations: A study on curved interfaces of martensite in indium-thallium metal alloy.*

Zhu, Xiaodong, *Topics in partial differential equations of elliptic and hyperbolic types.*

STATISTICS

Cheng, Yu-Ting, *Markov chain Monte Carlo sampling for Bayesian computation.*

Garrett, James, *Modeling expert opinion for contingency tables.*

Hardy, Michael, *Why logical probabilists need real numbers.*

Lai, Wen-Lin, *Admissibility of formal Bayes inferences in quadratically regular decision problems: A Markov approach.*

Roussanov, Bisser, *Some admissible decision rules in finite population sampling.*

MISSISSIPPI

Mississippi State University (2)

MATHEMATICS AND STATISTICS

Geoffroy, Pedro Jose, *Poisson regression for overdispersed and correlated data.*

Givavuangsawat, Sumalee, *Statistical inference in the presence of correlated data.*

University of Mississippi (1)

MATHEMATICS

Summerville, Jamie Lee, *Biadjoints of Riesz-like homomorphisms between partially ordered vector spaces.*

MISSOURI

St. Louis University (1)

MATHEMATICS AND COMPUTER SCIENCE

Johnson, Robert A., Jr., *Construction of higher dimensional orbifolds and their orbifold invariants.*

University of Missouri, Columbia (11)

MATHEMATICS

Haile, Craig, *An upper bound for the second eigenvalue of the Dirichlet Schrödinger operator with fixed first eigenvalue.*

Kelly, Annela, *Weakly analytic vector-valued measures.*

Mystkowski, Miroslaw, *On spectral properties of Schrödinger-type operators.*

Ratnaseelan, Ratnam, *Trace relations for one-dimensional Schrödinger operators.*

Renger, Walter, *Limits of soliton solutions.*

Robdera, Mangatiana, *On the analytic complete continuity property of Banach spaces and convolution operators.*

Ufuktepe, Unal, *Positive solutions of nonlinear elliptic equations on Euclidean plane.*

Voepel, Tammy, *Variable transformations for difference equations.*

Wodzak, Michael, *Uniform distribution and entire functions.*

Zeng, Min, *On procedures for finding the interior eigenvalues of large nonsymmetric matrices.*

STATISTICS

Chen, Yi-Ju, *Distribution results for tests based on ranks.*

University of Missouri, Kansas City (2)

MATHEMATICS AND STATISTICS

Kardos, Judit, *Measure and porosity of subsets of the real line.*

Londre, Tristan, *Accuracy of a two-sided parallel Jacobi scheme for singular value decompositions.*

Washington University (10)

MATHEMATICS

Fernandez, Luis, *Superminimal 'surfaces in spheres.*

Gonzalez, Cristobal, *Differential inequalities associated with weighted symmetrization processes on the real line.*

Li, Xinwei, *Transference and related techniques in harmonic analysis.*

Lin, Peng, *Hankel and Toeplitz operators on some weighted spaces of entire functions.*

Luong, Bao, *A T(b) theorem for the Poincaré upper half-space and hyperbolic geometry.*

Nguyen, Tristan, *Holomorphic curves in $\mathbb{P}^n$ minus a general hypersurface.*

Tourville, Suzanne, *An analysis of a numerical method for solving the two-dimensional Navier-Stokes equations.*

Weiland, David, *Calderón-Zygmund operators and smooth molecules.*

Woodley, Anita, *Subgroups of the two-dimensional Cremona group.*

SYSTEMS SCIENCE AND MATHEMATICS

Shoults, Gregg Allan, *Dynamics and control of an underwater robotic vehicle with an n-axis manipulator.*

MONTANA

Montana State University (9)

MATHEMATICAL SCIENCES

Brown, Scott, *The mathematics learning log and its effects on mathematics achievement, anxiety, and communication.*

Helfgott, Michel, *Integrated calculus.*

Kilday, Beth, *Perceptions of graduate teaching assistants and their students on collaborative learning in reform calculus and its relationship to instruction and achievement.*

Larson, Chris, *Using iconic modeling and technology with American Indian reservation students.*

Luebeck, Jennie, *Mentoring through telecommunications: An early career program for rural mathematics and science teachers.*

Oursland, Mark, *Comparing the cognitive differences resulting from modeling instruction: Using computer microworld and physical object instruction to model real world problems.*

Swanson, Wendy, *Negative binomial estimation and testing: Comparison to minimum disparity methods.*

Tiwari, Sunil, *Biofilm growth in a homogenous porous medium.*

Willard, Teri, *Mathematics portfolios, NCTM goals, and students' perceptions; a complex analysis.*

University of Montana (2)

MATHEMATICAL SCIENCES

Long, William Michael, *Asymptotic analysis of the dissolution of a spherical bubble in the case of a fast reaction.*

Sangadji,, *Compact Toeplitz operators on Fock spaces.*

NEBRASKA

University of Nebraska, Lincoln (8)

MATHEMATICS AND STATISTICS

Al-Khaled, Kamel, *Theory and computation in hyperbolic model problems.*

Fitchett, Stephanie, *Generators of fat point ideals on the projective plane.*

Morelli, Mike, *Disconjugacy of a third-order linear difference equation.*

Olsen, Cheryl, *On graphical designs.*

Ruyle, Robert, *Pseudovarieties of inverse monoids.*

Szaniszlo, Zsuzsanna, *On the Bollobás inequality.*

Wang, Kaicheng, *Rewriting reduction and pruning reduction on Munn trees.*

Yamamura, Akihiro, *HNN extensions of inverse semigroups.*

NEW HAMPSHIRE

Dartmouth College (3)

MATHEMATICS

Frechette, Sharon, *Decomposition of spaces of half-integral weight cusp forms.*

Gunter, Lawrence, *Transformation monoids of algebraic number rings.*

Veenstra, Tamara, *Characterizing Siegel modular forms.*

University of New Hampshire (3)

MATHEMATICS

Cullinane, Michael J., *Contributions to the theory of neighborhoods and its applications.*

Neveu, Lawrence Valery, *Contributions to the theory of distance functions and its application in general topology.*

Soucy-McCrane, Sharon Marie, *Student interactions and mathematics discourse: A study of the development of discussions in a fifth grade classroom.*

NEW JERSEY

New Jersey Institute of Technology (1)

MATHEMATICS

Pelesko, John, *Diffusive and wavelike phenomena in thermal processing of materials.*

Princeton University (23)

APPLIED AND COMPUTATIONAL MATHEMATICS

Gandhi, Amar S., *From level to level: Course-graining/scaling in ecology.*

Palsson, Eirikur, *The cAMP signaling system in dictyostelium discoideum.*

MATHEMATICS

Caraballo, David George, *A variational scheme for the evolution of polycrystals by curvature.*

Chung, Kin Yan, *On variational schemes modeling surface diffusion.*

Dolgopyat, Dmitry, *On statistical properties of geodesic flows on negatively curved surfaces.*

Feng, Zuwei Thomas, *On certain families of multivariable exponential sums and their monodromy groups.*

Fraser, Andrea Joila, *Marcinkiewicz multipliers on the Heisenberg group.*

Fung, Francis Yein Chei, *On the relation between Springer fibers of the general linear group and Kazhdan-Lusztig theory.*

Gilbert, Anna Catherine, *Multiresolution homogenization schemes for differential equations and applications.*

Green, Linda Elizabeth, *Incompressible surfaces in three-dimensional manifolds that fiber over the circle.*

Honda, Ko, *On harmonic forms for generic metrics.*

Karnaukh, Anton, *Spectral count on compact negatively curved surfaces.*

Kosygin, Denis, *Statistical properties of spectra of Laplace-Beltrami operators on Liouville surfaces.*

Maley, Franklin Miller, *Hall polynomials for classical groups.*

Miller, Stephen David, *Cusp forms on $SL_3(Z)\backslash SL_3(R)/SO_3(R)$.*

Pakianathan, Jonathan, *On the cohomology of certain p-groups associated to Lie algebras.*

Skinner, Christopher Mclean, *Deformations of reducible Galois representations.*

Soshnikov, Alexander Boris, *Global level spacings distribution for large random matrices from classical compact groups: Gaussian fluctuations.*

Such, Ondrej, *Monodromy of Airy and Kloosterman sheaves.*

Tao, Terrence, *Three regularity results in harmonic analysis.*

Vatsal, Vinayak, *Iwasawa theory, modular forms and Artin representations.*

Wise, Daniel T., *Non-positively curved squared complexes, aperiodic tilings and non-residually finite groups.*

Yip, Nungkwan, *Stochastic perturbations in curvature driven flows.*

Rutgers University, New Brunswick (16)

MATHEMATICS

Anderson, David B., *A wavelet based spatially and temporally adaptive numerical method for partial differential equations and its application to the solution of the heatflow problem in crystal growth.*

Barron, Katrina, *The supergeometric interpretation of vertex operator superalgebras.*

Bennett, James, *The reducts of some infinite homogeneous graphs and tournaments.*

Cedio Fengya, Donna Jean, *Identification of interfaces and small inhomogeneities from boundary measurements of electrostatic potentials and currents.*

Chitour, Yacine, *Applied and theoretical aspects of the controllability of nonholonomic systems.*

Doering, Luisa Rodriguez, *Multiplicities, cohomological degrees and generalized Hilbert functions.*

Georgiev, Galin, *Combinatorial constructions of modules for infinite-dimensional Lie algebras.*

Han, Zuhong, *Local solvability of analytic pseudodifferential complexes in top degree.*

Losada, Maria E., *Measure, category and the cofinality of the infinite symmetric group.*

Ostheimer, Gretchen, *Algorithms for polycyclic-by-finite groups.*

Pekec, Aleksandar, *Limitations on conclusions from combinatorial optimization methods.*

Reimer, David, *Five coloring theorems.*

Toth, Arpad, *Equidistribution of roots of quadratic congruences.*

Zhu, Meijun, *Moving sphere method and sharp Sobolev inequality.*

STATISTICS

Manco, Gregory, *Testing and confidence regions for parameters of order restricted spaces.*

Tatsuoka, Kay S., *M, CM, and S-estimates: Theory and computation.*

Stevens Institute of Technology (2)

MATHEMATICAL SCIENCES

McGuire, Linda, *An extension of Dirac's theorem.*

Miniere, Michael, *Some algebraic properties of the monodromy groups of certain transcendental functions.*

NEW MEXICO

New Mexico State University (1)

MATHEMATICAL SCIENCES

Zarret, Debra, *Generalized echelon and co-echelon spaces.*

NEW YORK

City University of New York, Graduate Center (10)

MATHEMATICS

Castro, Francis, *Exponential sums and L-functions over finite fields.*

Dias, Olen, *Effective computations with dense structured matrices and applications to polynomial evaluation and interpolation.*

Huang, Shuechin, *Subgroups of Hecke groups and Hecke polygons.*

Huang, Xiaohan, *Algorithms for fast rectangular matrix multiplications and their applications.*

Stein, Gregory, *Factoring cyclotomic polynomials over finite fields.*

Su, Meigu, *Measurable laminations and holomorphic dynamics.*

Touhey, Patrick, *A phantom dissertation.*

Weaver, Anthony, *Moduli spaces of hyperelliptic Riemann surfaces.*

Wyatt, Katherine, *Decomposition methods for disjunctive linear programming and fixed-income portfolio selection.*

Yao, Wei-Chen, *The arithmetic and geometry of Bianchi groups.*

Clarkson University (1)

MATHEMATICS AND COMPUTER SCIENCE

Lakoba, Taras, *Perturbations and stability of solitary waves in nonlinear optics.*

Columbia University (11)

BIOSTATISTICS

Bagiella, Emilia, *Estimating a survival distribution from case control family data.*

Leu, Cheng-Shiun, *Some theorems concerning a sequential elimination procedure of selecting the best one of several binomial population or multinomial categories.*

Vaughan, Roger D., *The units of analysis problem in quasi-experiments: Analysis of cluster-designed, pair-matched binary data in school based research.*

MATHEMATICS

Carbone, Lisa, *Lattices in the automorphism group of a tree.*

Comech, Andrew, *Asymptotic estimates for oscillatory integral operators.*

Diamantis, Nikolaos, *Special values of higher derivatives of L-functions.*

Hamidi-Tehrani, Hessam, *Algorithms in the mapping class groups.*

Leung, Man-Cheung, *Relative Bessel coefficients over a finite field.*

Liu, Zhesheng, *Oscillatory integrals and Radon transforms.*

Mimar, Arman, *Some generalizations of the Ihara-Serre-Tate theorem.*

Oliveira, Bruno Namorado, *Lifting curves on surface deformations and Hodge theory.*

Cornell University (15)

APPLIED MATHEMATICS

Allouba, Hassan Ashraf, *Different types of SPDEs: Existence, uniqueness, and Girsanov's theorem.*

Hough, Patricia D., *Stable and efficient solution of weighted least-squares problems with applications in interior point methods.*

Sin, Carlos A., *Strictly local martingales and hedge ratios on stochastic volatility models.*

Toh, Kim Chuan, *Matrix approximation problems and nonsymmetric iterative methods.*

Zounes, Randolph Scott, *An analysis of the nonlinear quasiperiodic Mathieu equation.*

MATHEMATICS

Baggett, Jeffrey, *Non-normal dynamics and hydrodynamic stability.*

Bueler, Edward, *The heat kernal weighted Hodge Laplacian on noncompact manifolds.*

Cai, Tianwen (Tony), *Nonparametric function esimation via wavelets.*

Dunlap, Richard, *Superconvergence points in locally uniform finite element meshes for second order two-point boundary value problems.*

Schneck, Henry Koewing, *Homological methods in the theory of splines.*

STATISTICS

Borkowf, Craig, *The empirical and parametric: Bivariate quantile-partitioned distributions.*

Ding, Aidong, *Prediction intervals and confidence intervals for neural networks and HELP.*

Jiang, Wenxin, *Aspects of misspecification in statistical models: Applications to latent variables, measurement error, random effects, omitted covariates and incomplete data.*

Levine, Richard, *Optimizing convergence rates and variances in Gibbs sampling schemes.*

Wu, Yuhai, *Minimax estimation of non-parametric regression through white noise problem.*

New York University, Courant Institute (14)

MATHEMATICS

Chen, Kangyan (Connie), *Applications of the method of complex characteristics.*

Csizmadia, Gyorgy, *The distribution of distances among n points.*

Grigorescu, Ilie, *Self-diffusion for Brownian motions with local interaction.*

Keich, Uri, *Stationary approximations to non-stationary stochastic processes.*

Lee, Hyeong-Gi, *Optimal shape design of quasi-one dimensional transonic duct.*

Lin, Ta-Chia, *Ginzburg-Landau vortices in superconductors and defects in biaxial nematic liquid crystals.*

Nicolescu, Bogdan, *Kinematic and MHD dynamo action with multiple velocity modes.*

Perera, Kanishka, *Critical groups of pairs of critical points produced by linking subsets.*

Ramirez, Alejandro, *Relative entropy and mixing properties of some infinite dimensional processes.*

Ryan, Reade, *Large deviation analysis of Gaussian fields and the statistics of Burger's turbulence.*

Schultz, Peter, *Nonlinear wave equations on multidimensional lattices.*

Teytel, Mikhail, *Degeneracies in the spectra of self-adjoint operators.*

Toth, Geza, *Extremal problems in combinatorial geometry and graph theory with algorithmic applications.*

Wlodarski, Krzysztof, *Numerical simulations of Hele-Shaw flow in a time-dependent gap.*

Rensselaer Polytechnic Institute (9)

DECISION SCIENCE AND ENGINEERING SYSTEMS

Goyal, Anil, *Towards a robust financial aid modeling approach.*

Jamit, Kochhar, *Design of a dynamic facility: A genetic algorithm based approach.*

Lee, Young, *Strategic and tactical models for multi-destination traffic routing in telecommunication networks.*

Voss, Pieter, *Estimating steady state mean from short observed time series with initial transient.*

MATHEMATICAL SCIENCES

Coury, Robert, *Energy conservation and interface conditions for parabolic approximations to the Helmholtz equation.*

Jonsson, Elias, *Partial Dirichlet to Neuman maps in the approximate reconstruction of conductivity distributions.*

Longfritz, Michael, *Stochastic representation of ocean environments using empirical orthogonal functions with acoustic applications.*

Schultz-McLoughlin, Mary Ann, *Olga Taussky-Todd, Grande Dame of Mathematics.*

Weckesser, Warren, *Stability of the relative equilibria in a class of mechanical systems with rotational symmetry.*

State University of New York, Albany (4)

MATHEMATICS AND STATISTICS

Bourgault, Steven, *Problems in dynamics: Free homeomorphisms, invariants, and difference equations.*

Evans, Richard, *Bayesian influence when pooling of data is uncertain.*

Mascuilli, Augustine, *Discrete Phragmén-Lindelöf theorems.*

Schwartz, Kenneth A., *Groups generated by face-pairing maps on polyhedra.*

State University of New York, Buffalo (5)

MATHEMATICS

Chen, Shaw-Guey, *Solvability of convolution equations in spaces of distributions on R^n with restricted support.*

Gidea, Marian, *The discrete Conley index for non-variant sets and detection of chaos.*

Jeng, Jyh-horng, *Existence and uniqueness of the family of solutions of the planar Benard problem on the hexagonal lattice with nonslip boundary conditions.*

Krzyzanski, Wojciech, *Analysis of a model of membrane potential for a skin receptor nerve.*

Nie, Fusheng, *Products of Toeplitz operators and products of Hankel operators on the unit sphere.*

State University of New York, Stony Brook (24)

APPLIED MATHEMATICS AND STATISTICS

Chou, Chung Chiang, *Parallel simulated annealing and applications.*

Graham, Mary Jane, *A numerical study of Richtmyer-Meshkov instability driven by cylindrical shocks.*

Harnett, Joan, *Capital accumulation with population dynamics.*

Hwang, Hyun-Cheol, *A front tracking method for regularization-sensitive shock waves.*

Hwang, Kwisung, *Exact distributions of extreme value statistics for urn models with epidemiologic applications.*

Kent, Kathryn, *Stable cost allocations on minimum spanning tree networks.*

Kone, Fatoumata, *Estimating the volatility of stock markets.*

Lewis, Herbert, *The fleet coordination problem.*

Li, Qian, *Wave interactions and bifurcation for front tracking in three dimensions.*

Min, Daekee, *Maximum likelihood estimation of parameters for mixture of two gamma distribution.*

Pass, Andrea, *The analysis of continuous interfaces using compressible multicomponent flow with front tracking.*

Son, Sungik, *Study of shock-accelerated instability through non-linear analysis.*

Sun, Kent, *Diffusion problems in fluid flow models.*

Wang, Yuan, *Parallel simulation and optimization for inventory systems and biosystems.*

MATHEMATICS

Donley, Robert, *Intertwining operators into cohomology representations for semisimple Lie groups.*

Heckman, Christopher, *Monotonicity and the construction of quasiconformal conjugacies in the real cubic family.*

Hwang, Seungsu, *Characterizations of various classes of Einstein metrics.*

Jeffres, Thalia, *Singular Kähler-Einstein metrics.*

Klarreich, Erica, *Semiconjugacies between Kleinian group actions on the Riemann sphere.*

Lorek, Wladyslaw, *Generalized Cauchy-Riemann operators in symplectic geometry.*

Lu, Peng, *A rigorous definition of fiberwise quantum cohomology and equivariant quantum cohomology.*

Marques, Carlos, *Self-dual HI-cellular structures.*

Sung, Myong-Hee, *Kähler metrics of positive scalar curvature on ruled surfaces.*

Wenstrom, LeRoy, *Scaling laws for quadratic maps.*

Syracuse University (4)

MATHEMATICS

Lin, Yachen, *Feed-forward Nenzal network-learning algorithm, statistical properties, and applications.*

Modali, Laksmi, *A uniform property for finite sets of points in projection space.*

Porter, Mary, *The effects of writing to learn mathematics on conceptual understanding and procedural ability in introductory college calculus.*

Trimboli, John, *A journey through numeracy: Correlates of mathematical success at the collegiate level.*

University of Rochester (7)

MATHEMATICS

Gaggero, Jose Andres, *Asymptotic mean square of the product of the second power of the Riemann zeta function and a Dirichlet polynomial.*

Hyun, Jung-Soon, *Exponential decay for a class of potentials.*

Wang, Jeffrey Hongyu, *On the braid groups for Rp^2 and the Möbius band.*

Xicotencatl, Miguel Alejandro, *Orbit configuration spaces, infinitesimal braid relations in homology and equivariant loop spaces.*

STATISTICS

Hutson, Alan, *Quantile function estimation and applications.*

Jeong, Jong, *New applications in frailty models in survival analysis.*

Roy, Abhijit, *Transient analysis of queueing systems.*

NORTH CAROLINA

Duke University, Raleigh (6)

MATHEMATICS

Arthurs, Kayne, *Flow regulation in the afferent arteriole: An application of the immersed boundary method.*

Cheng, Po-Jen, *Long time asymptotics for the sine-Gordon equation.*

Filip, Anne-Marie, *Existence and modulation of traveling waves in particle chains.*

STATISTICS AND DECISION SCIENCES

Desimone, Heather, *Prediction using orthogonalized model mixing.*

Li, Frank (Saishi), *Time deformation models: Theory and practice.*

Su, Fusheng, *Limit theorems on deviation probabilities with applications in two-armed clinical trials.*

North Carolina State University, Raleigh (18)

MATHEMATICS

Marszalek, Wieslaw, *Analysis of partial differential algebraic equations.*

Wang, Jianhua, *Monotone iterative method for diffusion equations with nonlinear diffusion coefficients.*

Zhang, Yue, *Mathematical formulation of vibrations of a composite curved beam structure: Aluminum core material with viscoelastic layers, constraining layers and piezoceramic patches.*

OPERATIONS RESEARCH

Manyem, Phrabu, *Routing problems in multicast networks.*

Wu, Peitsang, *Neural networks and fuzzy control with applications to textile manufacturing.*

Zhang-Lo, Shuzhi, *ATM network topological design and network modification.*

STATISTICS

Bobashev, Georgiy Vladimirovich, *Endogeneous and exogeneous factors in the dynamics of childhood infectious diseases.*

Cummins, David Jesse, *Confidence bands for nonparametric curve estimates.*

Devanarayan, Viswanath, *Simulation extrapolation methods for heteroscedastic measurement error models with replicate measurements.*

Jayawickrama, Judith Nilmini, *Adjustment for carryover in crossover designs: Use of weighted estimation and hypothesis testing as an alternative to classical-two-stage procedures.*

Ker, Alan Phillip, *Rating and yield predicting procedures for the group risk federal crop insurance program: A nonparametric approach.*

Li, Yi-Ju, *Characterizing the structure of genetic population.*

Mixson, Lori Ann Hill, *The generation of diversity in chondrichthyan immunoglobulin variable region genes.*

Morgan, Jane Elizabeth, *Methods for testing variance parameters equal to zero in a random coefficient regression model.*

Saikali, Khalil Georges, *Uniformly most powerful tests for linear inequalities.*

Su, Cheng, *Random coefficient models for degradation and spatially correlated count data.*

Sun, Hongguang, *Testing for trends and causality in time series data.*

Zhang, Jie, *Inference for correlated categorical data and analysis of interaction between treatments and patient subsets.*

University of North Carolina, Chapel Hill (5)

MATHEMATICS

Hammack, Richard, *Topology of the space of morphisms from an affine curve to a semisimple group.*

Hung, Kim-Fai, *Numerical algorithms for parameter estimation in the Stefan problem.*

Kjeseth, Lars, *BRST cohomology and homotopy Lie-Rinehart pairs.*

Lyons, David, *Some results on integral Weyl invariants and Leray-Serre spectral sequence for compact Lie groups.*

STATISTICS

Dasgupta, Amites, *Stochastic integration with respect to fractional Brownian motion.*

University of North Carolina, Charlotte (1)

MATHEMATICS

Kao, Kuo-Yuan, *Sums of hot and tepid mathematical games.*

NORTH DAKOTA

North Dakota State University (1)

MATHEMATICS

Kosek, Wojeciech, *On certain sequences in ergodic theory.*

OHIO

Bowling Green State University (4)

MATHEMATICS AND STATISTICS

Button, Michael, *Representable non-solvable varieties of lattice-ordered groups.*

Elderbrock, Lisa, *Linear forms in the logarithms of three or four algebraic numbers with an application to solving Diophantine equations.*

Lesko, James, *Spectral synthesis of compressed Toeplitz operators.*

Rempala, Grzegorz, *Limit theorems for random permanents and U-statistics of infinite order with applications to statistical inference.*

Case Western Reserve University (4)

MATHEMATICS

Chen, Xia, *Limit theorems for functionals of ergodic Markov chains with general state space.*

Ikeshoji, Hideomi, *On transformation semigroups.*

Margolius, Barbara Haas, *Time-dependent multiserver and priority queues.*

Wojcieszyk, Boguslaw, *Polynomials with some extreme properties.*

Kent State University (5)

MATHEMATICS AND COMPUTER SCIENCE

Bachmann, Olaf, *Chains of recurrences.*

Gocal, Beverly, *On routing Clos networks.*

McConnell, Michael, *Localization in left Noetherian rings.*

Scott, Stephen, *A distributed heterogeneous computing environment.*

Spalsbury, Angela, *Cyclic vectors and extremal vectors of linear operators.*

Ohio State University (26)

MATHEMATICS

Altobelli, Joseph Anthony, *The word problem for some Artin groups of infinite type.*

Bagdasarov, Sergey Konstantinov, *Maximization of functionals in $H^w[a, b]$.*

Chan, Shing-Wai, *On the Chern-Connes pairing for pseudomanifolds and Lie groups.*

Chan, Wai Kiu, *Spinor genera under Zp-extensions.*

Das, Manabendra, *Pointwise local dimensions.*

Degenhardt, Sheldon Lockwood, *Weighted-inversion statistics and their symmetry groups.*

Galup, Luis, *A new approach to ergodic maximal inequalities.*

Hlavacek, Amy, *q-vertex irreducible graphs on the torus.*

Johnson, Bryan Robert, *Unconditional convergence of differences in ergodic theory.*

Lame, John, *p-adic finite difference equations.*

Leininger, Verne Edward, *Multiple basic hypergeometric series and an infinite family of identities for integral powers of the classical eta-function.*

Major, Imre, *On equivariant Morse theory.*

Mullins, Edmond, *Derivation bases, interval functions, and fractal measures.*

Nance, Anthony Charles, *On the independence numbers for the cycle matroid of a wheel: Unimodality and bounds supporting log-concavity.*

Popescu, Cristian Dumitru, *On a refined Stark conjecture for function fields.*

Rosenberg, Steven Jay, *On some conjectures in Mazur's deformation theory with supplementary results on p-adic L-functions.*

Shalack, Julie Lynne, *Galois representations and the Hecke action on the mod p cohomology of GLN a in the range $p - 1 \le= n < 2p - 2$.*

Tungol, Ronald Manuel, *The size of the reflexive, transitive closure in an evolving random directed acyclic graph.*

Wong, Chi-Kun Jimmy, *Spherical projections and cat(1) spaces.*

Zinoviev, Dmitrii, *Relation of orbital integrals on $SO(5)$ and $PGH(2)$.*

STATISTICS

An, Baoshe, *Poisson approximation in the context of file-merging technology.*

Hwang, Peggy May T., *Factor analysis of time series.*

Lawrence, John, *Interpoint distance methods for the analysis of high dimensional data.*

Li, Shuying, *Phylogenetic tree construction using Markov chain Monte Carlo.*

Nourijelyani, Keramat, *Generalized correlation coefficients for phylogenetic trees.*

Pultz, Joseph, *A stochastic model for growth hormone concentration.*

Ohio University (5)

MATHEMATICS

Friedman, Boris, *Prime divisors of Schur indices and degrees of Brauer characters in finite solvable groups.*

Lei, Yansong, *Regularized functional calculi for pseudo-differential operators, integro-differential equations and integrated semigroups.*

Puin, Christopher, *Character correspondences and subgroups of operator groups.*

Yan, Qingyin, *Doubly nonlinear evolution equations in Banach spaces.*

Yao, Fuyuan, *C-regularized semigroups, C-existence families, differential operators and abstract Cauchy problems.*

University of Cincinnati (6)

MATHEMATICAL SCIENCES

Howison, Ruth Clarissa, *Doubly symmetric periodic solution to the three dimensional restricted problem.*

McDonough, Michelle R., *Strong C-orders and Witt rings of *-fields.*

Zhang, Qin, *Non-linear reaction-diffusion equations and systems.*

Zhang, Xiujun, *Stability of skew dynamical systems.*

QUANTITATIVE ANALYSIS AND OPERATIONS MANAGEMENT

Byczkowski, Terri, *Conducting sample surveys using frames with a many-to-many structure.*

Watson, Fred, *The uncapacitated facility location problem: A comparison of decomposition methods.*

OKLAHOMA

Oklahoma State University (2)

MATHEMATICS

Kable, Anthony Charlton, *Exceptional representations of the metaplectic double cover of the general linear group.*

STATISTICS

Jeong, Dongbin, *Testing for a unit root in an AR(p) signal observed with MA(q) noise and model misspecification.*

University of Oklahoma (8)

BIOSTATISTICS AND EPIDEMIOLOGY

Williams, D. Keith, *A comparative study of analysis methods for longitudinal studies with missing values.*

MATHEMATICS

Chen, Chi, *Topics in feedback control stabilization.*

Chen, Xitai, *A generalization of the deformations of the enveloping algebra of $s\ell_2$: Construction and representation theory.*

Li, Hong, *Mathematical models of flow of fluids in porous media.*

Strickland, Debra Ann Mullins, *Building fences around the chromatic coefficients.*

Vasilev, Stanislav, *Tau functions for matrix hierarchies.*

Wang, Yuxing, *Finite groups of outer automorphisms of free groups of finite rank.*

Xia, Renlong, *The p-harmonic Gauss maps.*

OREGON

Oregon State University (5)

MATHEMATICS

Hale, Patricia L., *Building conceptions and repairing misconceptions in student understanding of kinematic graphs—using student discourse in calculator based laboratories.*

Plaehn, David C., *One-dimensional Kohenen maps are super-stable with exponential rate.*

Utter, Fred, *Associations among teachers' pedagogical content beliefs, classroom practice, and their students' achievement.*

Zandieh, Michelle J., *The evolution of student understanding of the concept of derivative.*

STATISTICS

Weaver, George, *Model based estimation of parameters of spatial populations from probability samples.*

University of Oregon (7)

MATHEMATICS

Barrera-Yanez, Egidio, *The eta invariant, equivariant bordism, connective K-theory and manifolds with positive scalar curvature.*

Bradley, Sean, *The Jacobson radical and reflexive subspace lattices of a Banach space.*

Cooper, Allison, *Structural results for some noncommutative quadratic algebras.*

Hitchman, Michael, *A relative identity property for two-complexes.*

Imig, Scott, *Logarithmic forms induced by syzygies of syzygies of linear functionals.*

Parr, Adam, *Signed hypergroups.*

Ritchey, Ann M., *The structure and cohomology of Poisson and Jacobi manifolds.*

PENNSYLVANIA

Bryn Mawr College (2)

MATHEMATICS

Mastrangeli, Jean, *Symplectic packings of cotangent bundles of toric.*

Meda, Gowri, *Sewn up and surgered sewn up link exteriors: Surgery presentations and formulas for Lescop's invariant.*

Carnegie Mellon University (5)

MATHEMATICAL SCIENCES

Chen, Hui, *Combinatorial optimizations of hypergraphs.*

Gutierrez, Sergio Enrique, *Laminations in linearized elasticity and a Lusin type theorem for Sobolev spaces.*

Wang, Da-Qing, *Applications and analysis of covolume schemes in computational electromagnetics.*

Wang, Han, *Numerical solution of a nonconvex optimization problem modeling Martensitic microstructure.*

Weiske, Gregor, *On some problems related to linear elasticity, optimal design and homogenization.*

Lehigh University (2)

MATHEMATICS

Karaca, Ismet, *Nilpotence in the mod p Steenrod algebra.*

Sullivan, Rosemary, *Crofton's theorem for parametrized families of convex polygons.*

Pennsylvania State University (15)

MATHEMATICS

Bloy, Greg, *Waring's problem for forms over fields of nonzero characteristic.*

Borisov, Alexandr, *Boundedness problems for Fano varieties with singularities.*

Caragiu, Mihai, *Patterns, codes, and quasi-randomness.*

Humphreys, Alan James, *On the necessary use of strong set existence axioms in analysis and functional analysis.*

Kononenko, Alexey, *Duality method for cohomologies of dynamical systems: Differential and cohomological rigidity of lattice actions.*

Lee, Woo, *Representations of the braid group B_4.*

Mukherjee, Arup, *An adaptive finite element code for elliptic boundary value problems.*

Tanumihardjo, Amin, *Primitive representations of Hermitian forms.*

Wheland, Ethel, *Matrix factorization.*

STATISTICS

Lin, Yong, *The likelihood ratio test of mixture hypotheses and the tube volume problem.*

Pulkstenis, Eric, *A random effects model for the analysis of categorical longitudinal data subject to informative dropout.*

Sanchez, Matilde, *Nonparametric analysis of repeated measures.*

Suryawanshi, Shailaja, *Analysis of high-dimensional data in problems of regression and discrimination with applications to size and shape analysis.*

Xi, Li-Wen, *Measuring goodness-of-fit in the analysis of contingency tables with mixture-based indices: Algorithms, asymptotics and inference.*

Zuo, Yunling, *Development of the likelihood ratio test in the cancer risk model: Limiting distributions, testing theory.*

Temple University (3)

MATHEMATICS

Hassen, Abdulkaolir, *Log-polynomial period functions for the Hecke groups.*

Majewicz, John, *WZ-certification for Abel-type identities and Askey's positivity conjecture.*

Wang, Wenrui, *Global formulation and solution of some selection problems.*

University of Pennsylvania (7)

MATHEMATICS

Jiang, Shenjun, *Torus fibered knots.*

Mikovsky, Anthony, *Convex polyominoes, general polyominoes, and self-avoiding walks using algebraic languages.*

Movshev, Michael, *Translation principle in the category 0 for the Virasoro algebra.*

Price, Alkes, *Packing densities of layered patterns.*

Xiao, Caiqun, *Galois module structure of elliptic curves over number fields.*

STATISTICS

Kang, Yung-Gyung, *A study on adaptive function estimation.*

Yu, Jingchun, *Analyzing sequences of categorical data with applications.*

University of Pittsburgh (3)

MATHEMATICS

Brodzik, Monica L., *Numerical approximation of manifolds, and applications.*

Kicey, Charles John, *Irregular sampling of wavelet transforms and reconstruction.*

Ren, Liwei, *Phase-locking in chains and arrays of coupled oscillators.*

RHODE ISLAND
Brown University (8)

APPLIED MATHEMATICS

Bukowski, John, *The Boussinesq limit of the Fermi-Pasta-Ulam equation.*

Kruse, Gerald W., *Parallel nonconforming spectral element solution of the incompressible Navier-Stokes equations.*

Matejic, Larisa, *Group cascades for representing biological variability in medical images.*

MATHEMATICS

Levandosky, Steven, *Stability and asymptotic behavior of higher order nonlinear waves.*

Luo, Chenghui, *Numerical invariants and classification of smooth and polygonal curves.*

Rizzo, Ottavio Giulio, *On the variation of root numbers in families of elliptic curves.*

Whittlesey, Marshall Andrew, *Analytic structure in polynomial hulls and singularity sets fibered over the ball in complex 2-space.*

Yang, Seong-Deog, *On a connected sum construction for complete minimal surfaces of finite total curvature.*

University of Rhode Island (2)

MATHEMATICS

Fuller, Kelly, *Characterization of blow-up solutions to certain nonlinear Volterra integral equations.*

Hull, Thomas C., *Some problems in List coloring bipartite graphs.*

SOUTH CAROLINA
Clemson University (4)

MATHEMATICAL SCIENCES

Carpenter, Laurel L., *Designs and codes from hyperovals.*

Pillone, Daniel J., *Rankings and minimal rankings of graphs.*

Shobe, Franklin D., *On a class of Steiner systems and their codes.*

Vorwerk, Karin E., *Frequency domain methods for distributed parameter systems.*

University of South Carolina (10)

MATHEMATICS

Chen, Anping, *Compactly supported bidimensional biorthogonal wavelet bases with globally invariant by a θ rotation.*

Dubinin, Vladimir, *Greedy algorithms and applications.*

Lengvarszky, Zsolt, *Independent subsets in lattices.*

Sandberg, Peter L., *Finding independent sets in connected graphs without large complete subgraphs.*

Shao, Wei, *Image processing and neural networks.*

Solan, Junior, *Norms of factors of polynomials, an extension of a theorem of Ljunggren, and the distribution of k-free numbers.*

Wang, Pinghua, *Wavelet characterizations of Besov spaces in $L^p(\Omega), 0 < p \le 1$.*

Zheng, Weimin, *Signal processing and numerical PDE.*

Zhu, Chuanzhong, *Results on intersecting families of subsets of a finite set.*

STATISTICS

Dasgupta, Nairanjana, *Comparison to control in logistic regression.*

TENNESSEE
University of Memphis (6)

MATHEMATICAL SCIENCES

Katirtzoglou, Eleni, *Geometric properties of Banach spaces.*

Li, Yusheng, *Asymptotic behavior of some Ramsey functions.*

Zhang, Hongyuan (Jane), *Some stochastic models and data analysis of animal carcinogenicity.*

Zhao, Jiaxiang (Joshua), *Instability and stability for functional differential equations.*

Zhou, Lijia, *Character recognition agents.*

Zhou, Mi, *On the study of probabilistic approximation processes.*

University of Tennessee (6)

MATHEMATICS

Feldman, Nathan, *The self-commutator of a sub-normal operator.*

Funasaki, Eric, *Examinations of dynamical behavior and estimations of toxicant levels in chemically stressed population models.*

Lika, Konstadia, *Interactions of predator-prey ecological processes and advective movement in a spatially heterogeneous environment.*

Perrine, Stanley O., *Sets of uniqueness for Vilenkin series of bounded types.*

Plexousakis, Michael, *An adaptive non-comforming finite element method for the nonlinear Schrödinger equation.*

Stallmann, Cornelius, *Infinite dimensional geometric groups.*

Vanderbilt University (2)

MATHEMATICS

Beshears, Aaron Christian, *G-isovariant structure sets and stratified structure sets.*

Roach, David William, *Multiwavelet prefilters: Orthogonal prefilters.*

TEXAS

Rice University (13)

COMPUTATIONAL AND APPLIED MATHEMATICS

Abd El-Mageed, Maissa, *3D First arrival traveltimes and amplitudes via eikonal and transport finite difference solvers.*

Argaez, Miguel, *Exact and inexact Newton linesearch interior-point algorithms for nonlinear programming problems.*

Butera, Gwyneth, *The solution of a class of limited diversification portfolio selection problems.*

Das, Indraneel, *Nonlinear multicriteria optimization and robust optimality.*

de Oliviera, Aurelio, *A class of preconditioners for large-scale linear systems for interior point methods for linear programming.*

Klie, Hector, *Krylov-secant methods for solving large-scale systems of coupled nonlinear parabolic equations.*

McCarthy, C. Maeve, *An investigation of the optimal design of the tallest unloaded column.*

Nolan, Cliff, *Global analysis of linearized inversion for the acoustic wave equation.*

Parada, Zeferino, *A modified augmented Tangrangian merit function, and Q-superlinear characterization results for primal-dual quasi-Newton interior-point methods for nonlinear programming.*

Saaf, Fredrik, *A study of reactive transport phenomena in porous media.*

MATHEMATICS

Gerges, Amir, *Surgery, bordism and equivalence of 3-manifolds.*

Prokhorenkov, Igor, *Morse-Bott functions and the Witten Laplacian.*

Uhlig, Paul X., *Shape optimization problems over quasidisks and chord-arc domains.*

Southern Methodist University (5)

MATHEMATICS

Napierala, Malgorzata, *Univariate and multivariate, sequential and parallel integration on finite ranges.*

STATISTICAL SCIENCE

Ernst, Michael, *Permutation tests of bivariate interchangeability.*

Tang, Liang-jun, *Censored data: A large sample study of CDF estimates under constraints.*

Wan, Ying, *Significance testing for the robust sib pair linkage method.*

Wang, Jinping, *Experimental design and statistical analysis in serial dilution assays.*

Texas A&M University (8)

MATHEMATICS

Gadidov, Anda, *Strong law of large numbers for a class of U-statistics.*

Speegle, Aletta, *Sandwich composition rings.*

Speegle, Darrin, *S-elementary wavelets and the into C(K) extension property.*

You, Puhong, *Analysis and computation of nonlinear boudary control for heat conduction in nonsmooth domains with point observations.*

STATISTICS

Jang, Don Sig, *Stability of variance estimators under complex sampling designs.*

Lee, Geung Hee, *A statistical wavelet approach to model selection and data driven Neyman smooth tests.*

Yi, Seongbaek, *An automatic bandwidth selector using one-sided cross-validation.*

Yue, Qinli, *Chemometric calibration and partial least squares.*

Texas Tech University (5)

MATHEMATICS

Agwu, Nwojo Nnanna, *Optimal control of dynamic systems and its application to spline approximation.*

Balogh, Andras, *Local feedback regularization of three dimensional Navier-Stokes equations on bounded domains.*

Lauko, Istvan, *Output regulation for linear distributed parameter systems.*

Pinter, Gabriella, *Global attractors for damped abstract nonlinear hyperbolic systems.*

Xu, Wen, *Two sample comparisons with mixed discrete and continuous variants.*

University of Houston (10)

MATHEMATICS

Abraham, Ross, *Automorphism groups of Abelian p-groups.*

Benningfield, Kirk, *Uniquely divisible topological semigroups.*

DeLaVina, Ermelinda, *Ramseyan properties and conjectures of graffiti.*

Gillis, David, *Symmetric ODE's and coupled systems.*

Juarez, Lorenzo-Hector, *Numerical simulation of time-dependent viscous flows in complex geometries.*

Lackey, Bradley, *A Weitzenbock formula for elliptic complices.*

Ruan, Guohua, *Numerical solutions of some type of slightly compressible flow.*

Sanchez, Francisco, *On some splitting methods for the numerical solutions of the Navier-Stokes equations.*

Zafiris, Vasilis, *Constructs on manifolds applied to grid generation.*

Zhai, Canfang, *Computation of rotating wave solutions of reaction diffusion systems.*

University of North Texas (2)

MATHEMATICS

Kim, Jongchul, *Generalized function solutions to nonlinear wave equations with distribution initial data.*

Ochoa, James, *Tensor products of Banach spaces.*

University of Texas, Arlington (3)

MATHEMATICS

Bedivan, Dana, *Least-squares methods for optimal shape problems.*

Krueger, Carole, *Monotone functions of several variables.*

Yang, Haw-Dai, *Numerical construction of optimal adaptive grids in two special dimensions.*

University of Texas, Austin (17)

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Edwards, Harold Carter, *A parallel infrastructure for scalable adaptive finite element methods and its application to least squares C^∞ collocation.*

Zohdi, Tarek Ismail, *Analysis and adaptive modeling of highly heterogeneous elastic structures.*

MATHEMATICS

Androulakis, George, *Isomorphically polyhedral Banach spaces and mixed Tsirelson spaces of arbitrary distortion.*

Berg, Gary, *On James spaces.*

Chen, Jen-yuan, *Iterative solutions of large sparse nonsymmetric linear systems.*

Choi, Kwok Kwong Stephen, *Diophantine approximation on projective spaces over number fields.*

Cui, Xuewei, *Construction of time trend free run orders.*

Dworkin, Steven, *Ergodic theory, X-ray diffraction and tilings of Euclidean space.*

Epperson, James, *Percolation on the randomized Sierpiński carpet.*

Etnyre, John, *Symplectic constructions on 4-manifolds.*

Guilfoyle, Brendan, *The Cauchy initial value problem for Yang-Mills metrics.*

Hahm, Nahmwoo, *Degree of approximation by neural networks.*

Heinz, Martin, *Quasiconformal groups.*

Lee, Joongul, *On the refined class number formula.*

Lochhead Rock, Laura, *A coupled system of semilinear parabolic equations with hysteresis.*

Oh, Seungsang, *Exceptional manifolds after Dehn filling.*

Tandy, Brian, *Cantor sets and Lipschitz actions on circles and trees.*

University of Texas, Dallas (2)

MATHEMATICAL SCIENCES

Murphy, Craig, *Diophantine equations and the direction-of-arrival problem for phase interferometers.*

Zeng, Guoping, *Nonlinear observers for output tracking.*

UTAH
University of Utah (6)

MATHEMATICS

Chen, Shirnping, *Examples of n-step nilpotent 1-format 1-minimal models.*

Dallon, John C., *A mathematical study of chemotaxis in dictyostelium discoideum.*

Lee, Yongnam, *Degeneration of numerical Godeaux surfaces.*

Mayer, Richard A., *Coupled contact systems and rigidity of maximal dimensional variations of Hodge structure.*

Smithies, Laura, *Equivariant analytic localization for group representations.*

Wang, Nien-Tzu, *Computational methods for continuum models of platelet aggregation.*

Utah State University (2)

MATHEMATICS AND STATISTICS

Juras, Martin, *Geometric aspects of second-order scalar hyperbolic partial differential equations in the plane.*

Yang, Junming, *Properties of robust model selection.*

VERMONT
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MATHEMATICS AND STATISTICS

Zheng, Qifu, *Generalized Watson transforms and applications.*

VIRGINIA
University of Virginia (14)

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Bourn, Rebecca, *Temperature potential analysis of a compressible gas in a rapidly rotating cylinder.*

Marchand, Richard James, *Finite element approximations of control problems arising in nonlinear shell theory.*

McDevitt, Timothy John, *Whirling of elastic tubes.*

Qian, Zili, *Constructing exact time-dependent 3-dimensional solutions for elastic plates from classical 2-dimensional solutions.*

MATHEMATICS

Borzynski, Daniel, *Applications of Jordan algebras to the normal subgroup structure of $SL_2(R)$.*

Chen, Xiao, *Unit groups of p-adic group rings.*

Hunter, David, *Stable homotopy groups of spheres and Brown-Gitler spectra.*

Hunter, Patti, *The formation of a discipline: Mathematical statistics in the United States in the nineteenth and twentieth centuries.*

Robeva, Raina, *The sharp Markov property for Gaussian random fields and a problem of spectral synthesis in certain function spaces.*

Vance, Todd, *Missing weights in GRM codes.*

Weiss, Kevin, *Involutions with fixed set $RP^{2m} \times RP^{2n}$.*

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Tan, Xiaofeng (David), *Statistical inferences of parameters subject to order restrictions.*

Yang, Ronghua, *MLE asymptotics for parameter-dependent random effects with applications to hormone modeling.*

Zhang, Juan, *Analysis of nonlinear random effects models with applications to linear growth and hormonal changes in boys at puberty.*

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Dixon, Cheryl A., *Power analysis for the mixed linear model.*

Farina, Dianne, *The development of D-optimal designs for exponential survival models.*

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Appel, Justin, *Sensitivity calculations for conservation laws with application to discontinuous fluid flows.*

Borisuk, Mark, *Bifurcation analysis of a model of the frog egg cell cycle.*

Cerezo, Graciela, *Solution representation and identification for singular neutral functional differential equations.*

Deang, Jennifer, *A study of inhomogeneities and anisotropies in superconductors via Ginzburg-Landau type models.*

Mohammed, Salem, *Mixed-integer mathematical programming optimization models and algorithms for an oil tanker routing and scheduling program.*

Mulzet, Ken, *Exponential stability for a diffusion equation in polymer kinetic theory.*

Rubio, Aurora, *Distributed parameter control of thermal fluids.*

Zhu, Jinghao, *Some results on nonlinear optimal control.*

STATISTICS

Assaid, Christopher, *Outlier resistant model robust regression.*

Chiacchierini, Lisa, *Experimental design issues in impaired reproduction applications.*

Jia, Yan, *Optimal experimental design for two-variable logistic regression models.*

McMahan, Angela, *Measurement error in designed experiments for second order models.*

Neff, Angela, *Bayesian two stage design under model uncertainty.*

Robinson, Timothy, *Dual model robust regression.*

Rotelli, Matthew, *Neural networks as a tool for statistical modeling.*

WASHINGTON
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Salinger, David H., *A splitting algorithm for multistage stochastic programming with application to hydropower scheduling.*

Stern, L. G. (Ted), *An explicitly conservative method for time-accurate solution of hyperbolic partial differential equations on embedded Chimera grids.*

Welch, Wendell T., *Nonlinear baroclinic adjustmnet and wavenumber selection as a mechanism for atmospheric heat transport.*

Yang, Zhiyun, *A Cartesian grid method for elliptic boundary value problems in irregular regions.*

BIOSTATISTICS

Fan, Juanjuan, *Dependency estimation over a finite bivariate failure time region.*

Gilbert, Peter, *Sieve analysis: Statistical methods for assessing differential protection of an HIV-1 vaccine.*

Jones, Rob, *A comparison of three trough to peak estimators derived from ambulatory blood pressure data.*

Lymp, James, *A statistical model for fluorescence image cytometry.*

Lynch, James, *A flexible class of models for regression modelling of multivariate failure time data.*

Olshen, Adam, *Modelling positron emission tomography blood curves.*

Platt, Robert, *An evaluation of saddle point approximations in the generalized linear model.*

MATHEMATICS

Adhikari, S. Prashanth, *Torsion in the homology of the general linear group for a ring of algebraic integers.*

Harris, Julianne, *On the mod 2 general linear group homology of totally real number rings.*

Hollander, Michael, *Linear numeration systems, finite beta expansions, and discrete spectrum of substitution dynamical systems.*

Holt, Fred B., *Linear algebra, polytopes and the Hirsch conjecture.*

Hopkins, Brian, *Domino tableaux and single-valued wall-crossing operators.*

Hubbard, David, *The nonexistence of certain free pro-p extensions and capitulation in a family of dihedral extensions of Q.*

Ingerman, David, *Discrete and continuous inverse boundary problems on a disc.*

Rachele, Lizabeth, *An inverse problem in elastodynamics.*

Solomyak, Margarita, *Essential spanning forests and electric networks in groups.*

Tolmasky, Carlos Fabian, *Inverse problems for PDE's with non-smooth coefficients.*

Wright, James M., *Stable processes with opposing drifts.*

STATISTICS

Volinsky, Christopher T., *Bayesian model averaging for censored survival models.*

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Alsaleh, Jamal, *Some selected notes on tests for parameter changes in nonlinear regression.*

Burke, Matthew, *A model of the initial stages of plant naturalizations.*

Chang, Ching Mo, *A study of convection-diffusion problems related to contaminant transport.*

Kerzel, Dorothy, *Combinatorial methods for splitting necklaces.*

Stephenson, Laura, *Weakly nonlinear stability analyses of Turing pattern formation in the chlorite-iodide-malonic acid/starch reaction-diffusion model system.*

Taylor, Mark O., *Epidemics and some early mathematical models.*

Wilde, Scott, *Study and characterization of the P-topological convergence space.*

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Wu, Xing, *Dynamical systems in the modeling of lamprey fictive swimming.*

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Arratia-Quesada, Argimiro A., *On the existence of normal forms for logics that capture complexity classes.*

Benjamin, Diane Mullan, *Character degrees and structure of solvable and p-solvable groups.*

Berkove, Ethan J., *Cohomology of the Bianchi groups.*

Chen, Hsing-Hsia, *Preconditioning for regular elliptic systems.*

Chen, Ming-Li, *Cohomology representations.*

Collamore, Jeffrey F., *Large deviation techniques for the study of the hitting probabilities of rare sets.*

Collins, Benjamin V. C., *Some problems in the theory of distance-regular graphs.*

Curtin, Brian W., *Bipartite distance-regular graphs.*

Evans, Kellie M., *Larger than life; it's so nonlinear.*

Hart, Joan E., *Some results in set theory.*

Huang, Wenchao, *On the theory of inertia and stability of polytopes and cones of matrices.*

Kim, Yong Cheol, *On the maximal Bochner-Riesz operator.*

Kribs, Christopher M., *Core recruitment effects in modeling a sexually transmitted disease.*

Lee, Jaesung, *An invariant volume mean operator and its iteration in the bidisc.*

Milinkovic, Darko, *Floer homology and stable Morse homology in symplectic geometry.*

Ortiz, Carlos E., *Truth and approximate truth in metric spaces.*

Skarabot, Jure, *Bounds for the Besicovitch type maximal operator.*

Szydlik, Stephen D., *Milnor fiber complexes for rank 2 Shepherd groups and a note on the Poincaré polynomial of an arrangement.*

Varolin, Dror, *The density property.*

Villaveces, Andres, *Extensions of models of set theory: Height and large cardinals.*

Yoo, Jaechil, *Numerical solvers for the Galerkin least squares methods.*

STATISTICS

Chao, Wei-Hsiling, *Markov regression models for longitudinal categorical data in continuous time.*

Craig, Bruce, *Analysis of hidden Markov models via Markov chain Monte Carlo.*

Gong, Jianjian, *Adaptive model tuning in tynamical systems.*

Ko, Chia-wen, *Measure of association for survival time models.*

Li, Zhengqing, *Bias issue and sequential model checking in comparative clinical trials.*

Luo, Zhen, *Backfitting in smoothing spline ANOVA, and an application to historical global temperature data.*

Mau, Robert, *Bayesian phylogenetic inference using Markov chain Monte Carlo.*

Qui, Peihua, *Nonparametric estimation of discontinuous regression functions.*

Tam, Wing-Kuen, *Distinguishing stochastic from deterministic seasonality in time series analysis.*

Wu, Shuo-Jye, *Reliability analysis using the least squares method in nonlinear mixed-effect degradation models.*

Yang, Yonghong, *Two aspects of measurement error models: Generalizations of geometric mean functional relationship the effect of under- and over-fitting on measurement error models.*

University of Wisconsin, Milwaukee (4)

MATHEMATICAL SCIENCES

Cai, Luchuan, *Convergence and properties of wavelets on compact intervals.*

Kanta, Matthias, *Projective geometry and non-commutative algebra.*

Lukic, Milan, *Stochastic processess having sample paths in reproducing kernel Hilbert spaces with an application to white noise analysis.*

Redman, Irmgard, *The non-commutative algebraic geometry of some skew polynomial rings.*

WYOMING

University of Wyoming (5)

MATHEMATICS

Adams, Michael, *Generalized orthogonal arrays and related structures.*

Suchomel, Brian, *Network model of flow, transport and biofilm effects in porous media.*

STATISTICS

Charif, Husni, *Approximate prediction intervals for order statistics in time series.*

Park, Jong-Gak, *Studies for the extended bootstrap: Empirical simulation in one, two, and three dimensions.*

Price, Robert M., Jr., *Estimating the ratio of medians: Theory and applications.*

Jiang, Pelei, Interior point methods for stochastic programming and related problems.

Zhu, Min, Techniques for large-scale nonlinear optimization– principals and practice.

WEST VIRGINIA

West Virginia University, Morgantown (4)

MATHEMATICS

Buchanan, II, Hollie, Graph factors and Hamiltonian decompositions.

Cropper, Matthew, Hall's condition and list coloring.

Jordan, Francis, Cardinal numbers connected with adding Darboux-like functions.

Zhu, Chen, Asymptotics behaviors of solutions to some hydrodynamics models of semiconductors.

WISCONSIN

University of Wisconsin, Madison (35)

MATHEMATICS

Alrefaei, Mahmoud H., Discrete stochastic optimization using random search.

Andersson, Carl D., Bow and stern flows with gravity and surface tension.

Catoiu, Stefan, Ideals of enveloping algebras.

Caughman, John S., Bipartite P- and Q-polynomial association schemes.

Eisen, Nicolas L., Holomorphic sections of an orientable vector bundle.

Flores, Manuel T., L^2-theory for some rigid generalizations of the Heisenberg group.

Folch-Gabayet, Magali L., Boundedness of certain convolution operators.

Griffiths, Evan J., Completely mitotic Turing degrees, jump classes, and enumeration degrees.

Hermann, Paul D., Symmetric and unsymmetric buckling of circular arches.

Kim, Joonil, Hilbert transform and maximal function along curves in the Heisenberg group.

Lewis, Heather Ames, Homotopy and distance-regular graphs.

Lindhurst, Scott C., Computing roots in finite fields and groups, with a jaunt through sums of digits.

Logan, Mark J., Homology and invariants of reflection groups and Lie algebras.

Montgomery, Aaron G., Lusternik-Schnirelmann category and simplicial sets.

Moon, Dongho, Schur-Weyl duality for Lie super algebra and Lie color algebras.

Nam, Ki-Bong, Generalized Witt algebras over a field of characteristic zero.

Parker, Darren B., Hopf Galois extensions and forms of coalgebras and Hopf algebras.

Shaw, May Shu-Mei, Solution to the coagulation and fragmentation and partial differential equation.

Sneyd, Elizabeth S., Tolerance graphs and pseudo-interval graphs.

Strom, Jeffrey A., Category weight and essential category weight.

Torres-Gallardo, Evelyn, A FOSLS method for the overlapping grid problem.

Tsai, Tsung-Hsi, The uniform CLT and LIL for Markov chains.

Uen, Wuu-Nan, A descriptive study of mathematical teaching styles of junior high mathematics teachers in Taiwan.

Westlund, Eric R., The boundary manifold of an arrangement.

Yeh, Chien-ning, o-minimal expansions of ordered sets with unary functions.

Yeh, Nai-Sher, Contributions to forced capillary-gravity waves under Hocking's edge condition.

STATISTICS

Borghi, Elaine, Methods of inference in Strauss disc processes.

Chen, Yinzhong, Inference with complex survey data under random hot deck imputation.

Hsiao, Chin-Fu, Are sequential trial designs Bayes?.

Ladd, William, Two-dimensional self-modeling.

Martin, Sandra, Profiling methods in nonlinear models inverse prediction, and calibration.

Pan, Wei, Nonparametric and semiparametric survival analysis with left truncated and internal censored data.

Tao, Huageng, Estimation methods of statistical models for longitudinal data.

Yeo, In-Kwon, On alternative power transformation to handle skewness.

Zhang, Yunlei, Two new algorithms for nonparametric analysis given incomplete data.

University of Wisconsin, Milwaukee (9)

MATHEMATICAL SCIENCES

Abroell, Sigrid, Asymptotic behavior and design of a sieve estimator for a Gaussian mean function.

Balser, Tobias, New approximations for avoiding Gibbs phenomenon in wavelet subspaces.

Chen, Daning, Multipliers on certain function spaces.

Diestelkamp, Wiebke, Projections, decompositions and parameter inequalities for orthogonal arrays.

Fischer, Hanspeter, Visual boundaries of right angled Coxeter groups and reflection manifolds.

Nabhan, Maha, The weighted continuous Galerkin method for initial value problems.

Petersen, Hans-Juergen, A spline estimate of the score function in Adaptive L-estimation for linear regression.

Price, Kenneth, Enveloping algebras of Lie color algebras.

Shen, Xiaoping, Wavelet based numerical methods.

WYOMING

University of Wyoming (6)

MATHEMATICS

Bornholdt, Bryan, On isometries of Frechet spaces.

Desai, Alpana, Homogenization analysis applied to biofilm growth in porous media.

Lister, Lisa, Graph decomposition.

Liu, Mingjun, Mathematical theory and numerical methods for the valuation of American options.

Wo, Shaochang, The mathematical modeling and numerical approaches for microbial permeability modification of enhanced oil recovery processes.

STATISTICS

Seier, Edith, A family of skewness and Kurtosis measures.

Doctoral Degrees Conferred 1996–1997

Supplementary List

The following list supplements the list of thesis titles published in the January 1998 *Notices*, pages 45–63.

COLORADO

University of Colorado, Boulder (1)

MATHEMATICS

Azmi, Fatima Mohammad, Computation of the equivariant cocycle of the Dirac operator.