Doctoral Degrees Conferred

2004–2005

ALABAMA

Auburn University (2)

MATHEMATICS AND STATISTICS

Das, Kumer, Ruin estimates under interest force.

Granado, Michael, On the moving off property and weak additivity of local connectedness and metrizability.

University of Alabama, Birmingham (3)

BIOSTATISTICS

Richman, Joshua S., Sample entropy statistics.

MATHEMATICS

Lee, Young-Ran, Spectral properties of a polyharmonic operator with limit-periodic potential in dimension two.

Lesort, Claire, Statistical efficiency and complexity of curve fitting algorithms.

University of Alabama, Tuscaloosa (10)

INFORMATION SYSTEMS, STATISTICS AND MANAGEMENT SCIENCE

Fan, Guangzhe, Regression and survival tree analysis using TARGET.

Hong, Bo, Multivariate surveillance schemes for infectious diseases on multiple locations.

Howington, Eric, A genetic algorithm for computing the minimum volume ellipsoid estimates.

Yadav, Prashant, Collaborative forecasting and supply chain coordination.

Yu, Jing, Space-time interaction models for mortality data.

MATHEMATICS

Eddins, Melanie, Variation of M/G/1 queues with batch services.

Gong, Minqing, Waiting time in a combined first-come-first-served and shortest-time-first queue.

Kwon, Miyeon, A class of operation on Hardy space in Schatten-von Neumann class and its properties.

Simmons, Carolyn, A comparison of polynomial preconditioners for solving linear systems.

Zhang, Xinjun, A matrix version of corona theorem for algebras of functions on reproducing kernel Hilbert spaces.

ARIZONA

Arizona State University (6)

MATHEMATICS AND STATISTICS

Dueck, Amylou, Robust imputation in multivariate hierarchical data.

Gordillo, Luis, Q-Hausdorff summability.

Lant, Timothy, Transition kernels, integral semigroups on spaces of measures, and perturbation by cumulative outputs.

Li, Jiaxu, The dynamics of glucose-insulin endocrine metabolic regulatory system.

Murakami, Junko, Parameter estimate of a hidden Markov chain.

Rahman, Mohammad Mahbuber, Numerical approximations to stochastic differential equations with applications to mathematical neurosciences.

University of Arizona (11)

MATHEMATICS

Lozano, Guadalupe, Poisson geometry of the Ablowitz-Ladik equations.

Perlis, Alexander, The projective geometry of curves of genus one, and an algorithm for the jacobian of such a curve.

Shipmar, Patrick, Plant patterns.

PROGRAM IN APPLIED MATHEMATICS

Alvarez-Sierra, Oliverio, Acoustic resonance in a cavity under a subsonic flow.

Frey, Sarah, Characterization of instabilities in the problem of elastic planetary tides.

Kim, Sangil, Ensemble filtering methods for nonlinear dynamics.

Kondrashov, Dmitry, Protein control of a ligand: Modeling nitric oxide release in nitrophorin 4.

Lehovich, Andre, List-mode SPECT reconstruction using empirical likelihood.

Lu, Yixia, The integrability of second order nonlinear ordinary differential equations with Painlevé properties and Lie symmetries.

Park, Subok, Signal detection with random backgrounds and random signals.

Sviercoski, Rosangela, Multiscale analytical solutions and homogenization of n-dimensional generalized elliptic equations.

ARKANSAS

University of Arkansas, Fayetteville (3)

MATHEMATICAL SCIENCES

Karber, Kristen, Star-shift invariant subspaces of $H^2(\mathbb{D})$.

Shores, Emily, Regularity theory for weak solutions of systems in Carnot groups.

Singh, Pramod, Decomposition of nonlinear operators on Banach lattices.

CALIFORNIA

California Institute of Technology (13)

APPLIED AND COMPUTATIONAL MATHEMATICS

Stredie, Valentin Gabriel, Mathematical modeling and simulation of aquatic and aerial animal locomotion.

Westhead, Andrew, Upscaling for two-phase flows in porous media.

Yu, Xinwei, Localized non-blowup conditions for 3D incompressible Euler flows and related equations.

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 2004, to June 30, 2005) reported in the 2005 Annual Survey of the Mathematical Sciences by 215 departments in 152 universities in the United States. Each entry contains the name of the recipient and the thesis title. The number in parentheses following the name of the university is the number of degrees listed for that university. A supplementary list containing names received since compilation of this list will appear in a summer 2006 issue of the *Notices*.

CONTROL AND DYNAMICAL SYSTEMS

Bhat, Harish S., Lagrangian averaging, nonlinear waves, and shock capturing.

Del Vecchio, Domitilla, State estimation in multi-agent decision and control systems.

Gregory, Irene, Design and stability analysis of an integrated controller for highly flexible advanced aircraft utilizing the novel nonlinear dynamic inversion.

Papachristodoulou, Antonis, Scalable analysis of nonlinear systems using convex optimization.

Prajna, Stephen, Optimization-based methods for nonlinear and hybrid systems verification.

MATHEMATICS

Cai, Kaihua, Dispersive property of Schrödinger operators.

Johnson, Jennifer, Artin L-functions for abelian extensions of imaginary quadratic fields.

Katz, Daniel, On p-adic estimates of weights in Abelian codes over Galois rings.

Nenciu, Irina, Lax pairs for the Ablowitz-Ladik system via orthogonal polynomials on the unit circle.

Whitehouse, David, The twisted weighted fundamental lemma for the transfer of automorphic forms from GSp(4) to GL(4).

Claremont Graduate University (1)

SCHOOL OF MATHEMATICAL SCIENCES

Le, Hieu, Delamination detection in composite laminates using genetic algorithm optimization.

Stanford University (14)

STATISTICS

Arias-Castro, Ery, Graphical structures for geometric detection.

Bair, Eric, Methods of predicting patient survival based on DNA microarray data.

Chatterjee, Sourav, Concentration inequalities with exchangeable pairs.

Elkaroui, Noureddine, Extended validity of Tracy-Widom limiting law, with statistical application.

Finkelman, Matthew, Statistical issues in computerized adaptive testing.

Hooker, Giles, Diagnostics and extrapolation in machine learning.

Liu, Ruixue, New findings of functional ANOVA with applications to computational finance and statistics.

Paul, Debashis, Nonparametric estimation of principal components.

Peng, Jie, Score statistics to map genes in humans.

Qing Feng, Zhang, A basis function approach to interest rate derivative valuation.

Stone, Eric, Statistical advances in interspecific data analysis.

Terentyev, Sergiy, Asymmetric counterparty relations in default modeling.

Wang, Pei, Statistical methods for CGH array analysis.

Xiaohu, Zhang, Thin blue noise sampling and its application to antialiasing in computer graphics.

University of California, Berkeley (37)

BIOSTATISTICS

Neugebauer, Romain, Double robust estimation of causal parameters in marginal structural models.

Tai, Yu Chuan, Multivariate empirical Bayes models for replicated microarray time course data.

Xing, Biao, Statistical methods for detecting cis-regulatory motifs and constructing transcriptional regulatory networks.

MATHEMATICS

Bejenaru, Ioan, Quadratic derivative nonlinear Schrödinger equation.

Corn, Patrick, Del Pezzo surfaces and the Braner-Manin obstruction.

Ealy, Clifton, Thorn forking in simple theories and a Manin-Mumford theorem for T-modules.

Esty, Norah, Orbit structures of groups of homeomorphisms on S_1.

Ghioca, Dragos, The arithmetic of Drinfeld modules.

Hall, H. Tracy, Counterexamples in discrete geometry.

Hogan, Apollo, General topology under the axiom of determinacy: The beauty of topology without choice.

Kamnitzer, Joel, Mirkovic-Vilonen cycles and polytopes.

Kirkup, George, Examples of decomposition of ideals.

Levin, Aaron, Generalizations of Siegel's and Picard's theorems.

Levy, Dan, Applications of graph theory to chromosome rearrangements and phylogenetics.

Milanov, Todor, Singularity theory and integrable hierarchies.

Miranian, Luisa, Matrix valued orthogonal polynomials.

Nguyen, Nghi, Whitney theorems and Lefschetz pencils over finite fields.

Pribik, Peter, Integrable soliton hierarchies for $so\&d14, 2n$ via intertwining operators.

Roberts, Lawrence, Heegaard-Floer homology and d-based links in three manifolds.

Shvets, Yelena, Problems of flooding in porous and fissured porous rock.

Siegel, Aaron, Loopy games and computation.

Sinton, Andrew, The spherical transform on projective limits of symmetric spaces.

Speyer, David, Tropical geometry.

Sullivant, Seth, Toric ideals in algebraic statistics.

Tseng, Hsian-Hua, Quantum Riemann-Rock, Lefschetz and Serre theorems for orbifold Gromov-Witten theory.

Van Luijk, Ronald, Rational points on $K3$ surfaces.

Villareal, Oscar, Countable unions of subvarieties of semiabelian varieties.

Voight, John, Quadratic forms and quaternion algebras: Algorithms and arithmetic.

Yu, Yifeng, $L\infty$ variational problems, Aronsson equations and weak KAM theory.

STATISTICS

Chen, Aiyou, Semiparametric inference for independent component analysis.

Collin, Francois, Analysis of oligonucleotide data with a view to data quality assessment.

Hallgrimsdottir, Ingileif, Statistical methods for gene mapping in complex diseases.

Liang, Gang, Statistical inference in network tomography.

Ng, Vivian, Univariate and bivariate variable selection in high dimensional data.

Roginsky, Michael, Modeling of transient processes in Markov chains with an application to the Internet traffic description.

Shi, Tao, Polar cloud detection using satellite data with analysis and applications of kernel learning algorithms.

Zhao, Xiaoyue, Statistical methods for elucidating DNA motifs and modules.

University of California, Davis (9)

MATHEMATICS

Dieng, Momar, Distribution functions for edge eigenvalues in orthogonal and symplectic ensembles: Painlevé representations.

Jerdonek, Christopher, The girth of a Heegaard splitting.

Tamaresis, John, Mathematical modeling of arterial endothelial cell responsiveness to flow.

STATISTICS

Branscum, Adam, Bayesian nonparametric and semiparametric inferences for disease risk and ROC curves.

Gui, Jiang, Regularized estimation in the high-dimension and low-sample size settings with applications to genomic data.

Last, Michael, Detecting abrupt changes in time-varying power spectra.

Tseng, Yi-Kuan, Joint modelling of time-to-event and longitudinal data.

Wai, Newton, Change trees and mutagrams for the visualization of local changes in sequence data.

Zhou, Lei, A new expression index based on the generalized logarithm and differential expression analysis of affymetrix GeneChip arrays.

University of California, Los Angeles (24)

MATHEMATICS

Bene, Alex, Intersections of cycles in the combinatorial moduli space.

Biswas, Kingshook, On the geometry of hedgehogs and log-Riemann surfaces.

Caston, Laurent, Super Lie groups, their actions and applications.

Chung, Tsz Shun Eric, Finite volume and discontinuous Galerkin methods for the numerical approximation of wave propagation problems.

Cotta, Brian, Numerical methods for stiff reaction-diffusion equations with applications to cardiological modeling.

Garibaldi, Julia, Erdös distance problem in other convex metrics.

Jones, Nathan, Almost all elliptic curves are Serre curves.

Kostadinov, Boyan, The Picard-Fuchs equation and its monodromy for a family of Calabi-Yau hypersurfaces in CP^{N-1}.

Lee, Sunmi, Artificial boundary conditions for linear elasticity and atomistic strain models.

Li, Xiaosheng, Inverse scattering problem for system of differential operators.

Mocanasu, Mona, Borel-Moore homology and algebraic oriented theories.

Molnar, Stephanie, Sharp growth estimates for $T(b)$ theorems.

Nguyen, Lan, The Ramanujan conjecture for Hilbert modular forms.

Peng, Pan, Integrality structure in the Gromov-Witten theory.

Soderlund, Christina, Characterizing fixed point sets of maps homotopic to a given map.

Somogyi, Zoltan, Stability of an imploding spherical wave in a van der Waals gas.

Staecker, Peter Christopher, The Reidemeister trace: Computation by nilpotentization and extension to coincidence theory.

Tornquist, Asger, The Borel complexity of orbit equivalence.

Virdol, Cristian, Zeta functions of twisted quaternionic Shimura varieties.

Weisbart, David, Schrödinger operators with matrix potentials and convergence of quantum systems on grids.

Yakes, Christopher, Composition operators on L-domains.

Yip, Andy Ming Ham, Mathematical models for data clustering.

STATISTICS

Tranbarger, Katherine, Point process prototypes and other applications of point processes distance metrics.

Yu, Tianwei, Study of the transcription regulation in Saccharomyces cerevisiae.

University of California, Riverside (5)

MATHEMATICS

Carrion-Alvarez, Miguel, Loop quantization versus Fock quantization of p-form electromagnetism on static spacetimes.

Chung, Jae-Wook, The algebraic structure of n-punctured ball tangles.

Culhan, Dustin, Associated primes and primal decomposition in modules and lattice modules, and their duals.

Overholser, Eric, Boundary behavior of an infinitesimal metric and intrinsic measure on domains and moduli space.

STATISTICS

Chu, Li Ping, Robustness of the respondents-generated interval.

University of California, San Diego (8)

MATHEMATICS

Donohue, Michael, Rank regression and synergy assessment.

Ericksen, Stefan, New settings of the first order Stark conjectures.

Griffin, Joshua D., Interior-point methods for large-scale nonconvex optimization.

Hazel, Graham P., Triangulating Teichmüller spaces using the Ricci flow.

Juhlin, Robert, Normal forms and convergence of formal CR mappings.

Shaheen, Anthony M., Finite planes and finite upper half planes: Their geometry, a trace formula, modular forms, and Eisenstein series.

Suaray, Kagba, On kernel density estimation for censored data.

Yu, Li, Superalgebraic interpretation of quantization maps of Weil algebras.

University of California, Santa Barbara (5)

MATHEMATICS

Delp, Kelly, Almost periodic flows on 3-manifolds.

Lyons, William, Fast algorithms with applications to PDEs.

Miller, Jeffrey, A 3rd order accurate positive scheme for hyperbolic systems of conservation laws in multi-dimensions.

Wills, Michael, Extension of spectral scales to unbounded operators.

STATISTICS AND APPLIED PROBABILITY

Kulkarni, Priya, Bootstrap methods for time series.

University of Southern California (2)

MATHEMATICS

Wan, Xuhu, Dynamic principal-agent problem in continuous time.

Zhang, Yu, Global and local multiple sequence alignment by an Eulerian path approach.

COLORADO

Colorado School of Mines (3)

MATHEMATICS AND COMPUTER SCIENCES

Abushama, Abeer, Modified nodal cubic spline collocation for Poisson's and biharmonic equations in the unit square.

Feng, Yan, Interactive floorplanning in VLSI.

Hayes, Timothy, Multiple choice programming.

Colorado State University (3)

MATHEMATICS

Grande, Beau, Time-stepper based numerical bifurcation analysis: An application to the Taylor-Couette problem.

STATISTICS

Gilleland, Eric, Statistical models for quantifying the spatial distribution of seasonally derived ozone standards.

Hess, Ann, Models and methods for the analysis of microarray data: Before and after the fold change calculation.

University of Colorado, Boulder (15)

APPLIED MATHEMATICS

Burrell, Neil, Merger and alignment of three-dimensional quasigeostrophic vortices.

Carvalho, Marcio, Applying perfect simulation to solve stochastic difference equations that arise from certain time series models.

Hwang, Feng-Nan, Some parallel linear and nonlinear Schwarz methods and applications in computational fluid dynamics.

Maclachlan, Scott, Improving robustness in multiscale methods.

Mullowney, Paul, Lagrangian particle transport/mixing in roll switching systems.

Petersen, Mark, A study of geophysical and astrophysical turbulence using reduced equations.

Roehrle, Oliver, Multilevel first order system least squares for quasi-linear elliptic partial differential equations.

Tearle, Matthew, Optimal perturbation analysis of stratified shear flow.

Thaler, Eric, An evaluation of the operational use of numerical solutions to the quasigeostrophic diagnostic equations by weather forecasters.

Vadlamani, Srinath, An algorithmic unification of particle-in-cell and continuum methods and a wave particle description for the electron temperature gradient (ETG) instability saturation.

Westphal, Chad, First-order system least squares for geometrically-nonlinear elasticity in nonsmooth domains.

MATHEMATICS

Brown, Christopher, Connectedness and reflections in symmetry algebras of differential equations.

Cohen, Robert, Construction of an order theoretic duality for certain groups.

Horne, Jennifer Anne, Cardinal functions on pseudo-tree algebras, and a generalization of homogeneous weak density.

McAlister, Erich, Noncommutative CW-complexes arising from crystallographic groups and their K-theory.

University of Colorado, Denver (2)

MATHEMATICS

Busch, Arthur, III, Arc-traceable tournaments.

Stewart, Dustin, Domination and matrix properties in tournaments and generalized tournaments.

University of Northern Colorado (1)

MATHEMATICAL SCIENCES

Duvall, Sally, Students' concept images of parameters in a multi-representational differential equations course.

CONNECTICUT

University of Connecticut (7)

MATHEMATICS

Lavrentier, Alexander, Uniqueness of the martingale problem for some degenerate elliptic operators.

Nurkhaidarov, Ermek, On automorphisms of models of Peano arithmetic.

STATISTICS

Huang, Lan, Bayesian methods for analyzing missing covariates data.

Majumdar, Anandamayee, Some problems in multivariate spatial and spatio-temporal modeling.

Mallick, Madhuja, Stable random family effects models for multivariate times to effects analysis.

Paliwal, Prashni, Chronological event modeling and computation of conditional rates.

Wu, Shanshan, Statistical model development toward explaining species diversity.

Wesleyan University (5)

MATHEMATICS AND COMPUTER SCIENCE

Coe, Russell, Variational principles for relative d-bar pressure.

Krishnan, Ayalur, Universal quantifiers in logic programming via indexed categories.

Rokicki, Anna, Finiteness results for definite η-regular and almost η-regular Hermitian forms.

Roychowdhury, Mrinal, Finitary orbit equivalence.

Wynne, Brian, Continuous functions on essential P-spaces: A model-theoretic analysis of some non-projectable lattice-ordered groups.

Yale University (6)

BIOSTATISTICS DIVISION

Buenconsejo-Sinfuego, Joan, A Bayesian hierarchical model for estimation of disease incidence using two surveillance datasets.

Duan, Fenghai, Analysis of microarray data.

Feng, Rui, A latent variable model for ordinal traits.

Liu, Nianjun, Statistical methods for haplotype analysis in genetic studies.

Wu, Yu-Te, Detecting rare adverse events in post-marketing studies: Sample size considerations.

STATISTICS

Valaitis, Eduardas, Testing the biomodality of normal mixtures.

DELAWARE

University of Delaware (5)

MATHEMATICAL SCIENCES

Chandler, David, The Smith normal forms of designs with classical parameters.

Dmytrenko, Vasyl, Classes of polynomial graphs.

Muniz, Wagner, A modified linear sampling method valid for all frequencies.

Tourrucoo, Fabricio, Perturbation methods in mathematical finance: Zero coupon bonds and bond options.

Williford, Jason, Constructions in finite geometry with applications to graphs.

DISTRICT OF COLUMBIA

American University (5)

MATHEMATICS AND STATISTICS

Begleri, Valbona, Prediction intervals for the Poisson model with applications to Atlantic storms data.

Jalali, Behzad, An investigation of the relationship between the ability to read and comprehend and mathematical skills.

Makhlouf, Fairouz, Regional scores for localizing genes.

Rishmawi, Shireen, Fitting concentration data with stable distributions.

Safi, Samir, The efficiency of OLS in the presence of auto-correlated disturbances in regression models.

George Washington University (2)

MATHEMATICS

Togha, Ataollah, On automorphisms of structures in logic and orderability of groups in topology.

STATISTICS

George, Barbara Jane, Bayesian regression for circular data.

Howard University (3)

MATHEMATICS

Farrier, Sandra, Fixed point and ergodic theorems for nonexpansive mappings on ultrametric Banach spaces.

Syafrida, An approach to approximation of $(0, q)$ meromorphic forms on a stem manifold.

Tankersley, Barbara, Some algebraic and combinatorial interpretations of lower triangular matrices from the Hankelization of sequences.

FLORIDA

Florida Institute of Technology (1)

MATHEMATICAL SCIENCES

Shaikh, Shoaib, Design optimization using statistical techniques.

Florida State University (4)

MATHEMATICS

Ibrahim Boulis, Caroline, Finite abelian group actions on orientable circle bundles over surfaces.

STATISTICS

Chaimongkol, Saengla, Modeling differential item functioning (DIF) using multilevel logistic regression models: A Bayesian perspective.

Neher, Robert, Jr., A Bayesian MRF framework for labeling terrain using hyperspectral images.

Ye, Gang, Nonparametric estimation for general time-varying covariate effect regression models.

University of Central Florida (4)

MATHEMATICS

Amezziane, Mohamed, Smoothing parameter selection in nonparametric functional estimation.

Edwards, Heather, Measures of concordance of polynomial type.

Masino, Aaron, Wave structure function and temporal frequency in weak to strong optical turbulence.

Salman-Mohamed, Mohamed, Utilization of total mass as a control in diffusion processes.

University of Florida (10)

MATHEMATICS

Huang, Feng, Applications of variational PDE models in medical image processing.

Huang, Shu-Jen, Multiscale discretization of electric-field equations.

Sheu, Yuan-Chyuan, Partition properties and Halpern-Lauchli theorem on the $C_{\min}$ forcing.

Smith, Rebecca, Combinatorial algorithms involving pattern containing and avoiding permutations.

Warren, Daniel, Optimizing the packing behavior of layered permutation patterns.

STATISTICS

Hitchcock, David, Smoothing functional data for cluster analysis.

Klingenberg, Bernhard, Regression models for discrete time series data.

Marchev, Dobrin, Monte Carlo methods for posterior distributions associated with multivariate student's t data.

Sinha, Karabi, Some contributions to small area estimation.

Sinha, Samiran, Bayesian inference for matched case-control studies.

University of South Florida (3)

MATHEMATICS

Chen, Zhao, Bayesian and empirical Bayes on power law process and microarray analysis.

Mahalingam, Kalpana, Involution codes: With application to DNA strand design.

Tookos, Ferenc, Hölder continuity of Green's functions.

GEORGIA

Emory University (7)

BIOSTATISTICS

Chen, Ying, Evaluation of a diagnostic test with partially missing gold standard information based on the test ignorance region.

Guo, Ying, Assessing agreement for survival outcomes.

Yang, Yang, Design and analysis of infectious disease intervention trials.

MATHEMATICS AND COMPUTER SCIENCE

Garten, Heather, Satellite graphs.

Schmitt, John, On potentially P-graphic degree sequences and saturated graphs.

Siggers, Mark, Hypergraph packings and Galois cohomology.

Wilson, Ulrica, Cyclicity of division algebras over an arithmetically nice field.

Georgia Institute of Technology (2)

SCHOOL OF MATHEMATICS

Sammer, Marcus, A transportation approach to the concentration of measure.

Song, Zixia, The extremal function for K_9 minors.

University of Georgia (10)

MATHEMATICS

Almeida, Paulo, Sign changes of error terms related to certain arithmetic functions.

Blair, James, On the embedding of triangles into integer lattices.

Gwena, Tawanda, Degenerations of Prym varieties and cubic threefolds.

Matthews, Graham, Computing generators and relations for matrix algebras.

Nash, Milton, Special values of Hurwitz zeta functions and Dirichlet L-functions.

Pooh, Charles, Capacity theory and algebraic integers.

Shumbusho, Rene-Michel, Elliptic curves with prime conductor and a conjecture of Cremona.

STATISTICS

Jiang, Yan, Semiparametric ANCOVA using shape restrictions.

Yang, Ying, Nonparametric Bayesian inference in biostatistics.

Zhang, Zhengang, Marginal models for zero-inflated clustered data.

HAWAII

University of Hawaii (2)

MATHEMATICS

Seffrood, Jiajia, Non-Desarguesian planes.

Xiong, Jianfei, Some topics on geometry and singularities.

IDAHO

Idaho State University (1)

MATHEMATICS

Moon, Bonnie, Radius of injectivity for a quarter plane.

University of Idaho (2)

MATHEMATICS

Abdo, Zaid, Computationally intensive methods for choosing, assessing and validating statistical models describing polymorphism, with applications in population genetics, phylogenetics and microbial ecology.

Sampson, Koffi, Structured coalescent with nonconservative migration.

ILLINOIS

Illinois State University (5)

MATHEMATICS

Adeyemi, Cheryl, Semiotic chaining: Preservice teacher beliefs and instructional practices.

Carter, John, Effects of lesson study on the beliefs and practices of novice mathematics teachers.

Seidelmann, Antoinette, Students' conceptions of zero.

Tomás Ferreira, Rosa, Portuguese mathematics student teachers' evolving teaching models: A modified teacher development experiment.

Yu, Paul, Prototype development and discourse among middle school students in a dynamic geometry environment.

Northern Illinois University (2)

MATHEMATICAL SCIENCES

Fowler, Kari, Normal functions, the MacLane class and complex differential equations in the unit disc.

Haertzen, Kevin, Geometric aspects of Sturm-Liouville problems.

Northwestern University (9)

ENGINEERING SCIENCE AND APPLIED MATHEMATICS

Comissiong, Donna, A stability analysis of polymerization fronts.

Norman, Catherine, A level set method to numerically determine the dynamics of gas bubbles in inclined channels.

MATHEMATICS

Chen, Jun, Transonic shocks and gas dynamics.

Cheng, Xuezhi, Transferring C_∞-structures.

Clay, Lisa, Some conjectures about the slopes of modular forms.

Kim, Young-Heon, Holomorphic extensions of Laplacians and their determinants.

Saghin, Radu, Generic properties of Lagrangian systems and conservative diffeomorphisms.

Yang, Zaiyong, Laminations and connecting orbits on lattice.

Zhu, Dianwen, Euler equations and steady supersonic flows.

University of Chicago (16)

MATHEMATICS

Barakat, Aliaa, On the moduli space of deformations of bihamiltonian hierarchies of hydrodynamic type.

Cherkashin, Dmitriy, Perception game.

Dani, Pallavi, Statistical properties of elements in infinite groups.

Draganescu, Andrei, Two investigations in numerical analysis: Monotonicity preserving finite element methods and multigrid methods for inverse parabolic problems.

Duchin, Moon, Geodesics track random walks in Teichmüller space.

Fedorov, Roman, Algebraic and Hamiltonian approaches to isostokes deformations.

Leyenson, Maxim, On some questions of the Brill-Noether theory for $K3$ surfaces.

Ogilvie, David, Isomorphisms of Hecke algebras and deformation rings in the function field case.

Pereira, Rochelle, Higher order cohomology operations and minimal atomicity.

Spice, Loren, Supercuspidal characters of SL_l over a p-adic field, l a prime.

Toumpakari, Evelin, On the abelian sandpile model.

Winn, Brandy, Traveling fronts in a reactive Boussinesq system: Bounds and stability.

STATISTICS

Clifford, David, The nature of spatial variation in crop yields.

Min, Wanli, Inferences on time series driven by dependent innovations.

Sen, Rituparna, Modeling the stock price process as a continuous time jump process.

Tong, Liping, Statistical inference for multi-color optical mapping data.

University of Illinois, Chicago (10)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Booton, Barry, Norm inequalities for certain classes of functions and their Fourier transforms.

Chang, Li, Statistical analysis of high frequency intraday security prices.

Chen, Jian, Growth rates with paths, non-commuting loops and Thurston's compactness theorem.

Ding, Junfeng, Efficient association ruling mining among infrequent items.

Radin, Dale, Unidimensional Zariski-type structures and applications to the model theory of compact complex spaces.

Takata, Ken, Listing algorithms for combinatorial objects and related combinatorial problems.

Unlu, Fatih, On explicit representations of the Grothendieck fundamental class.

Wang, Yusong, Computing dynamic output feedback laws with Pieri homotopies on a parallel computer.

Yan, Xu, Optimal designs in stability studies.

Yao, Haishen, Asymptotic analysis of the infinite server shortest queue problems.

University of Illinois, Urbana-Champaign (22)

MATHEMATICS

Chan, Song Heng, On cranks partitions, generalized Lambert series, and basic hypergeometric series.

David, Murphy, Equivariant embeddings of algebraic groups.

Demeter, Ciprian, Qualitative and quantitative analysis of weighted ergodic theorems.

Galway, William Floyd, Analytic computation of the prime-counting function.

Giarlotta, Alfio, Lexiographic products of linear orderings.

Groisman, Pavel, New family of constant mean curvature surfaces with non-coplanar ends.

Hahn, Heekyoung, Einstein series, analogues of the Roger-Ramanujan functions, and partitions identities.

Jegdic, Katarina, Analysis of spacetime discontinuous Galerkin method for systems of conservation laws.

Kang, Jeong Hyun, Coloring of metric spaces and $L(2,1)$-labeling of graphs.

Kulosman, Hamid, Ideals of linear type and c-sequences.

Mileti, Joseph, Partition relations and computability theory.

Nakprasit, Kittikorn, Coloring and packing problems for d-degenerate graph.

Petracovici, Boris, Analysis of a spacetime discontinuous Galerkin method for elastodynamics.

Petrenko, Bogdan, Primitive elements in finite fields.

Sano, Akira, The geometry of finite lattice varieties over Witt vectors.

Selvakumaran, T. V., Morita stable equivalence of certain algebras.

Shebalov, Sergey, Polyhedra study of mixed integer programs with variable upper bounds.

Wong, Kittipat, Intrinsic ultracontractivity and other properties of mixed barrier Brownian motion.

Yesilyurt, Hamza, Contributions to theory of Q-series and mock theta functions.

STATISTICS

Georgescu, Constantin, Finite population quantile estimators.

Wei, Ying, Longitudinal growth charts based on the semiparametric quantile regression.

Xu, Xueli, Computerized adaptive testing and equating methods with nonparametric IRT models.

INDIANA

Indiana University, Bloomington (12)

MATHEMATICS

Carter, Nathan, Logics that prove their own completeness.

Cheskidov, Alexey, The Navier-Stokes-alpha model and boundary-layer turbulence.

Ellett, Andrew, Portfolio management toward optimal consumption and terminal wealth.

Gu, Wentao, Fixed design regression for associated random fields.

Himpel, Benjamin, A splitting formula for spectral flow on closed 3-manifolds.

Im, Bo-Hae, The rank of elliptic curves over large fields.

Kong, Maiying, Nonparametric statistical techniques in bioassay.

Kudzin, Matthew, Cohomogeneity one manifolds of non-negative curvature.

Martinez, Maricarmen, Common sense reasoning via product state spaces.

Mersch, John, Equational logic of recursive program schemes.

Qian, Lei, Message dependence and formal verification of authentication protocols.

Wen, Su-Chi, Hyperbolic extensions of algebras with involution.

Purdue University (20)

MATHEMATICS

Butske, William, Computational aspects of the endomorphism ring of the Jacobian of a curve of genus two.

Enoch, Ruth, Formal power series solutions for Schroeder's equation in several complex variables.

Glotov, Dmitry, Current and vortices in the three-dimensional thin-film Ginzburg-Landau model of superconductivity.

Gower, Jason, Square form factorization.

Mangasuli, Anandateertha, Eigenvalues of the Laplacian for certain Riemannian metrics on S^2 and S^3.

Oh, Byung-Geun, Curvature and hyperbolicity of surfaces.

Rogers, Mark, The index of reducibility of parameter ideals.

Sun, Jianzhong, Long-time limit for the Ginzburg-Landau system with pinning.

Veliche, Oana, Homological dimensions for modules and complexes.

Veliche, Razvan, Some results on fundamental groups of Kähler manifolds.

Ward, Mark, Analysis of an error resilient Lempel-Ziv algorithm via suffix trees.

STATISTICS

Chakrabarti, Arijit, Model selection for high dimensional problems with applications to function estimation.

Collevecchio, Andrea, Limit theorems for reinforced random walks on trees.

Florescu, Ionut, Stochastic volatility stock price–coefficient estimation and option pricing using a recombining tree and sharp estimation of the almost-sure Lyapunov exponent for the Anderson model in continuous space.

Jiang, Hongmei, A two-step procedure for multiple pairwise comparisons in microarray experiments.

Liu, Yali, Incorporating time-dependent covariate in the Cox proportional hazards models: The LVAR approach.

Qin, Yu, A study of random field models in fitting unspecified data generating processes: Theory and applications.

Seo, Jeonggang, Some classical and Bayesian nonparametric regression methods in a longitudinal marginal model.

Stevens, John, Meta-analytic approaches for microarray data.

Vitek, Olga, An inferential approach to protein backbone nuclear magnetic resonance assignment.

University of Notre Dame (7)

MATHEMATICS

Bergner, Julia, Three models for the homotopy theory of homotopy theories.

Calvert, Wesley, Algebraic structure and computable structure.

Heidenreich, Jacob, Stability theory modulo a predicate.

Hubbard, Keith, The notion of vertex operator coalgebra: A construction and geometric characterization.

Jackson, Daniel, Birational maps of surfaces with invariant curves.

Maican, Mario, Vector bundles of finite order on affine manifolds.

Markert, Elke, Connective 1-dimensional euclidean field theories.

IOWA

Iowa State University (14)

MATHEMATICS

Aydinyan, Ruben, Loop transversal codes over finite rings.

Babyonyshev, Sergei, Metatheories of deductive systems.

Bhatt, Ghan, Nonseparable multivariate wavelets.

Campbell, Jessie, Enumeration and symmetry of edit metric spaces.

Kim, Eun-Youn, Analysis of game playing agents with fingerprint.

Kiounge, Benard, Sedenion extension loops and frames of hypercomplex $2n$-ons.

Maxwell, Mandi, Almost perfect nonlinear functions and related combinatorial structures.

Mutungi, Patrick, Simple ternary complex Grassman algebras.

Wangsness, Amy, The matrix completion problem regarding various classes of $P_{0,1}$-matrices.

STATISTICS

Ferraz, Cristiano, Sample design for quality monitoring and measurement error evaluation of large-scale longitudinal surveys.

Furukawa, Kyoji, Development of Markov random field models based on exponential family conditional distributions.

Landes, Reid, Statistical methods for application to calibration problems.

Sun, Shuxia, Bootstrapping the sample quantile based on weakly dependent observations.

Zhang, Zhongqi, Statistical analysis of gene expression profiles.

University of Iowa (13)

APPLIED MATHEMATICAL AND COMPUTATIONAL SCIENCES

Boston, Viorel, A posteriori error analysis and adaptive finite element solution of variational inequalities of the second kind.

Del Valle, Sara, Effects of behavioral changes and mixing patterns in mathematical models for smallpox epidemics.

Han, Xiaoxu, Local Z buffer algorithms in real time rendering of large complex systems.

Zhang, Li, The P-hub center allocation problem and Q-upgrading arc problem.

BIOSTATISTICS

Yang, Xinqun, The posterior probability of linkage allowing for linkage disequilibrium and a new estimate of disequilibrium between a trait and a marker.

MATHEMATICS

Dutkay, Dorin, Wavelet representations.

Farthing, Cynthia, C^*-algebras of higher-rank graphs: Desingularization and groupoid methods.

Hong, Doojin, Spectra of higher spin operators.

Hou, Xiaojie, Traveling wave solutions of the nonlinear diffusion-reaction equation.

Marrero, Alberto, A groupoid approach to ultragraph C^*-algebras.

Stuffelbeam, Ryan, The theta correspondences for $U(1)$ and the quasi-split $U(2)$.

Winders, Michael, Idealization.

STATISTICS AND ACTUARIAL SCIENCE

Kim, Chulmin, Unconstrained models for the covariance structure of multivariate longitudinal data.

KANSAS

Kansas State University (3)

MATHEMATICS

Kim, Sang Hyun, On the structure of finite AW^*-algebras.

STATISTICS

Perrett, Jamis, Using information on the intra-class correlation coefficient for hypothesis testing in unreplicated and under-replicated experiments.

Sy, Oumar, Multilevel mediation analysis: Applications and estimation.

University of Kansas (2)

MATHEMATICS

Caviglia, Giulio, Koszul algebras, Castelnuovo-Mumford regularity and generic initial ideals.

Epstein, Neil, Closure operators in commutative algebra: Tight closure, phantom depth, and $*$-spread.

Wichita State University (2)

MATHEMATICS AND STATISTICS

Bunck, Benjamin, Fast pseudospectral algorithms for boundary value problems for the Laplace equation on a rectangle.

Treinen, Ray, A study of floating drops.

KENTUCKY

University of Kentucky (8)

MATHEMATICS

Dobranski, Michael, Construction of exponentially growing solutions to first-order systems with non-local potentials.

Elliott, Steve, Simple homotopy theory for cell complexes.

Hoffnung, Leonard, Subspace projection methods for the quadratic eigenvalue problem.

Noble, Leigh, Recovery of through-thickness texture profiles in orthorhombic sheets of cubic metals.

Ragland, Matthew, On generalizations of groups in which normality is a transitive position.

Sharrow Pinzon, Kathrine, Absolutely pure modules.

Stepp, Elizabeth, Large Whitney levels and finite antichains.

Wesley, Molly, Torsion free covers of graded and filtered modules.

LOUISIANA

Louisiana State University (7)

MATHEMATICS

Ionita, Costel, Class groups and norms of units.

Johansen, Troels, Orbit structure on the Silov boundary of a tube domain and the Plancherel decomposition of a causally compact symmetric space, with emphasis on the rank one case.

Kovacs, Mihaly, On qualitative properties and convergence of time-discretization methods for semigroups.

Mihai, Claudiu, Asymptotic Laplace transforms.

Mihai, Vochita, The Radon-Gauss transform.

Ortiz, Norma, Dynamical systems with time delay.

Rios, Vinicio, Dissipative Lipschitz dynamics.

Louisiana Technical University (8)

MATHEMATICS AND STATISTICS PROGRAM

Feng, Zongwen, Modeling of solid layer growth at a constant speed in a binary melt crystallization process.

Gao, Wenzhi, Intelligent control of nonlinear systems with actuator saturation using neural networks.

Hughes, Joshua, Obstruction sets for classes of cubic graphs.

Lan, Hong, Integrated modeling and parallel computation of laser-induced axisymmetric rod growth.

Su, Shengjun, Numerical simulation of nanapulse penetration of biological matter using the Z-transform.

Yu, Haofeng, A high-order finite difference method for solving bioheat transfer equations in three dimensional triple-layered skin structure.

Zhang, Le, A numerical method for obtaining an optimal temperature distribution on 3D triple-layered cylindrical skin structure.

Zheng, Bin, Computational approaches to the design and analysis of stability of polypeptide multilayer thin films.

Tulane University (6)

BIOSTATISTICS

Broyles, Stephanie, Addressing missing data in public health: An empirical comparison of strategies.

Diaz, Rafael, Power and bias analyzing the logistic normal likelihood ratio test.

Lin, Hui-Yi, A comparison of goodness-of-fit tests for binomial generalized estimating equations models.

Sabel-Soteres, Allison, Missing data techniques with Likert scales: An imputation study.

Shafer, Leigh Anne, Comparison of methods in regression analysis with longitudinal data: A simulation study.

Xin, Xue, Performance assessment of shrinkage estimators for prediction in multiple regression with future random X.

University of Louisiana at Lafayette (8)

MATHEMATICS

Cai, Yong, Improved inferential methods for some discrete distributions.

Hu, Shuhua, Structured population models: Well-posedness, approximation and parameter estimation.

Jiang, Xiaoou, Single-point and complete quenching for degenerate semilinear parabolic first initial-boundary value problems.

Kim, Mihye, Hybrid interval marching/branch and bound method for parametrized nonlinear systems.

Melton, Tanya, The generalized quasilinearization method and higher order of convergence for nonlinear problems.

West, Ianna, Monotone iterative method for nonlinear problems.

Yang, Jie, Generalized iterative and faster convergence methods for nonlinear dynamical systems.

Yu, JianQi, Inference on the difference between two normal means vectors: Complete and missing data cases.

MARYLAND

Johns Hopkins University (16)

APPLIED MATHEMATICS AND STATISTICS

Castello, Beryl, Semi-obnoxious multi-facility location problems: Models and methods.

Ceyhan, Elvan, An investigation of proximity catch digraphs in Delaunay tessellations.

John, Majnu, A data-adaptive methodology for finding the optimal weighted generalized Mann-Whitney-Wilcoxon statistic.

May, William, Computational improvements in the substitution method for bounding percolation thresholds.

Wu, Xiaoling, Some statistical and computational problems in pedigree linkage.

BIOSTATISTICS

Choi, Leena, Modeling biomedical data and the foundations of bioequivalence.

Griswold, Michael, Complex distributions, hmmmm... hierarchical mixtures of marginalized multilevel models.

Liu, Dongmei, Application of hierarchical models in microarray data analysis.

Robinson, John, A hierarchical multivariate two-part model for profiling providers' effects on healthcare charges.

Shardell, Michelle, The analysis of informatively coarsened discrete time-to-event data.

Varadhan, Ravi, The role of the design, analysis, and computation in addressing aetiology in three types of studies in public health.

Wu, Zhijin, Probe level models for DNA microarrays.

Zhou, Hongling, Change point problems in generalized linear models.

MATHEMATICS

Krebs, Michael, Toledo invariants in 2-orbifolds.

Lee, Eun K., On certain cohomological invariants of algebraic number fields.

Tinaglia, Giuseppe, Multi-valued graphs in embedded constant mean curvature disks.

University of Maryland, Baltimore County (8)

MATHEMATICS AND STATISTICS

Hang, Yaming, Statistical analysis of two-dimensional electrophoresis gel images.

Korostyshevskiy, Valeriy, A Hermite spectral approach to homoclinic solutions of ODEs.

Liu, Xing, Interior point methods for sufficient LCPs and their applications in bioinformatics.

Paul, Gitanjali, P-values for testing individual bioequivalence and variance bioequivalence.

Tao, Jiyuan, Some P-properties for linear transformations on the Lorentz cone.

Tymofyeyev, Yevgen, Optimal allocation for multiarmed clinical trials.

Zhang, Jialu, Prediction model selection: Correlated data and CART.

Zhang, Yanqiong, Sequential monitoring for randomization tests.

University of Maryland, College Park (21)

MATHEMATICS

Abbiw-Jackson, Roselyn, Discrete optimization models in data visualization.

Al-Khal, Jawad, New examples of S unimodal maps with a sigma-finite absolutely continuous invariant measure.

Cheng, Yang, Maximum likelihood estimation and computation in a random effect factor model.

Cohen Freue, Gabriela, On robustness in some extended regression models.

Dai, Shibin, Universal bounds on coarsening rates for some models of phase transitions.

Frommer, Ian, Modeling and optimization of transmission networks.

Gagnon, Richard, Certain computational aspects of power efficiency and of state space models.

Gomez, Hector, Binormal motion of curves and surfaces in a manifold.

Jiang, Xiaoping, Nonparametric quasi-likelihood in longitudinal data.

Kalb, Virginia, Low-dimensional models for fluid flow.

Kebo, Andrew, Quantum detection and finite frames.

Lance, Ryan, Network state estimation via passive traffic marketing.

Liu, Kexue, Nonlinear evolutionary PDEs in image processing and computer vision.

Malekpour, Shirin, Predicate product logic and embeddings of ordered abelian group.

Rapatski, Brandy, The non-linear transmission dynamics of HIV/AIDS.

Ren, Huaizhong, Autonomous stochastic perturbations of Hamiltonian systems.

Restrepo, Juan, Synchronization in networks of coupled oscillators.

Schofer, Jarad, Borcherds forms and generalizations of singular moduli.

Trehan, Amit, Lifting of characters and orbital integrals on metaplectic groups.

Yang, Zhihui, Exit problems and stochastic resonance for a class of random perturbations.

Yen, Ju-Yi, Multivariate Levy processes for financial returns.

MASSACHUSETTS

Boston University (8)

MATHEMATICS AND STATISTICS

Kary, Michael, Evenness and its applications.

Look, Daniel, Singular perturbations of complex polynomials and circle inversion maps.

Lozano-Robledo, Alvaro, On elliptic units and p-adic Galois representations attached to elliptic curves.

Mencattini, Igor, The structures of insertion elimination Lie algebra.

Pasol, Vicentiu, p-adic modular symbols attached to C.M. forms.

Shor, Caleb, On towers of function fields and the construction of the corresponding Goppa codes.

Stoev, Stilian, Stable self-similar and locally self-similar random processes: Stochastic properties, parameter estimation and simulation.

Zagaris, Antonios, Analysis of reduction methods for multiscale problems.

Boston University School of Public Health (2)

BIOSTATISTICS

Leip, Eric, Adapting a method for applying the Cox proportional hazards model when the change time of a binary time-varying covariate is interval censored.

Zhang, Fang, Age dependent QTL analysis using Gibbs sampling for random effects models.

Brandeis University (2)

MATHEMATICS

Linshow, Andrew, Vertex algebras and invariant theory.

Paksoy, Vehbi Emrah, The A-series of the tangent bundles of flag manifolds and a generalization of Hori-Vata conjecture.

Harvard University (26)

BIOSTATISTICS

Christensen, Jared, Likelihood methods for clustered discrete and continuous outcomes in developmental toxicology.

Cook, Andrea, Detecting spatial clustering for discrete, censored, or longitudinal outcomes.

Fang, Xuemin, Probe-level microarray analyses: A random effect model to estimate cross-hybridization in expression index computation.

Graham, Dionne, Statistical methods for the analysis of HIV drug-resistance data.

Jemiai, Yannis, Semiparametric methods for inferring treatment effects on outcomes defined only if a post-randomization event occurs.

Kao, Ming-Chih, Computational and statistical approaches to the study of the genetic bases of human diseases.

Kim, Ryung Suk, Microarray analysis: Choice of metric, new clustering algorithm and identification of transcription factors.

Leon, Larry, Robust inference and model checking techniques for censored linear regression models.

Lin, Ming, Statistical methods in SNP-array-based loss-of-heterozygosity studies.

Litman, Heather, Estimation of marginal regression models with multiple source predictors.

Loecke, David, Mixed effects mean score method, optimal design for two-stage longitudinal studies in a GEE framework, and addition of covariates to a Markov model approach for characterizing progression of HIV genetic mutations.

Martin, Emily, Survival analysis under dependent truncation of failure time.

Matthews, Abigail, Analysis of family studies of disease.

Page, John, Doubly robust estimation: Structural nested cumulative failure time models, correction of the diagnostic likelihood ratio for verification bias.

Shubina, Maria, On maximum attainable correlation for the Sarmanov family of bivariate distributions, Bayesian analysis for markers and degradation, and threshold models with markers measured before observed event times.

Wager, Carrie, Mixed-model smoothing for replicated spatial point patterns in brain microscopy.

Wruck, Lisa, Statistical issues in the evaluation of tests for diagnosing disease and monitoring disease progression.

Zhang, Bin, Statistical methods with unrecognized heterogeneity in survival data analysis, identifying family relationships in genetic studies, and response-related incomplete data.

Zheng, Lu (Summer), Contributions to analysis of randomized multi-center clinical trials: The role of conditioning.

Zhong, Sheng (Richard), Computational and statistical approaches to study gene regulation and gene function.

ENGINEERING AND APPLIED SCIENCES

Kirsanov, Danil, Minimal discrete curves and surfaces.

Lauga, Eric, Slip, swim, mix, pack: Fluid mechanics at the micron scale.

Nickerson, Jill, Reference specification in multilingual document production.

Rusnak, John, Jr., The design structure analysis system: A tool to analyze software architecture.

Volpe, Anthony, Modeling flexible supply options for risk-adjusted performance evaluation.

Weber, Griffin, Data representation and algorithms for biomedical informatics applications.

Massachusetts Institute of Technology (30)

MATHEMATICS

Boulet, Cilanne, Partition identity bijections related to sign-balance and rank.

Caines, Ian, New examples of four dimensional AS-regular algebras.

Charbonneau, Benoit, Analytic aspects of periodic instantons.

Ching, Michael, Bar constructions for topological operads and the Goodwillie derivatives of the identity.

Choi, Jaehyuk, Transport-limited aggregation and dense granular flow.

De Silva, Daniela, Existence and regularity of monotone solutions to a free boundary problem.

Dolgushev, Vasilly, A proof of Tsygan's formality conjecture for an arbitrary smooth manifold.

Dong, Yu-An, Statistical analysis of protein interaction network topology.

Douglas, Christopher, Twisted stable homotopy theory.

Francisco, Sandra, Symplectic isotopy for cuspidal curves.

Guth, Lawrence, Area-contracting maps between rectangles.

Hajiaghayi, Mohammad Taghi, The bidimensionality theory and its algorithmic applications.

He, Xuhua, Some subvarieties of the De Concini-Procesi compactification.

Henriques, Andre, Orbispaces.

Honsen, Morten, A compact moduli space for Cohen-Macaulay curves in projective space.

Kleinberg, Robert, Online decision problems with large strategy sets.

Lam, Thomas, Combinatorics of ribbon tableaux.

Mirrokni, Vahab, Approximation algorithms for distributed and selfish agents.

Oblomkov, Alexei, Double affine Hecke algebras and noncommutative geometry.

Oprea, Dragos, The tautological classes of the moduli spaces of stable maps to flag varieties.

Persson, Per-Olof, Mesh generation for implicit geometries.

Robinson, Hugh, Maps and localizations in the category of Segal spaces.

Rochon, Frédéric, Bott periodicity for fibred cusp operators.

Rosenblum, Michael Aaron, Approximating fluid schedules in packet-switched networks.

Sutton, Brian, The stochastic operator approach to random matrix theory.

Testa, Damiano, The Severi problem for rational curves on del Pezzo surfaces.

Vondrak, Jan, Probabilistic methods in combinatorial and stochastic optimization.

Williams, Lauren, Combinatorial aspects of total positivity.

Wu, Damin, Higher canonical asymptotics of Kähler-Einstein metrics on quasi-projective manifolds.

Wu, Hao, Tight contact structures on small Seifert spaces.

Northeastern University (1)

MATHEMATICS

Seven, Ahmet, Combinatorial aspects of double Bruhat cells and cluster algebras.

Tufts University (1)

MATHEMATICS

Beltukov, Aleksei, Sonar transforms.

University of Massachusetts, Amherst (7)

BIOSTATISTICS AND EPIDEMIOLOGY

Sturdivant, Rod, Goodness-of-fit in hierarchical logistic regression models.

MATHEMATICS AND STATISTICS

Cullinan, John, Local global properties of torsion points on three-dimensional Abelian varieties.

Curran, Raymond, Toric ideals and discriminants in codimensions greater than two.

Eisner, Adam, A numerical exploration of the statistical behavior of the discretized nonlinear Schrödinger equation.

Hattaway, Amanda, Modelling tubuloglomerular feedback in coupled nephrons.

Rapti, Zoi, Modular instabilities of perturbed Schrödinger-type equations.

Tzirakis, Nikolaos, Global well-posedness for some dispersive partial differential equations.

MICHIGAN

Central Michigan University (2)

MATHEMATICS

Abu Ghneim, Omar, Nonabelian McFarland and Menon-Hadamard difference sets.

Kong, Lingji, A study of the properties, estimations and applications for the beta-gamma distribution.

Michigan State University (15)

MATHEMATICS

Alpay, Nimet, Global existence of solutions to nonlinear wave equations by weighted Strichartz inequalities.

Buyukbozkirli, Bulent, Modeling dynamics of genetic algorithms for one max and deceptive functions.

Cui, Changjun, Local regularization methods for n-dimensional first-kind integral equations.

Freidovich, Leonid, Logic-based switching control of nonlinear systems using high-gain observers.

Go, Jaegwi, Bucking arch under normal pressure.

Novozhilova, Lydia, Axisymmetric problems in nonlinear elasticity: Existence and global injectivity of energy minimizers and new classes of exact solutions.

Slavin, Leonid, Bellman function and BMO.

Sorto, Maria, Prospective middle school teachers' knowledge about data analysis and its application to teaching.

Vasiliu, Daniel, Constrained lower semicontinuity problems in the calculus of variations.

von Bergmann, Jens, Pseudo-holomorphic maps in folded symplectic manifolds.

Yu, Jui-Ling, A fully explicit optimal two-stage scheme to solve the reaction-diffusion-chemotaxis system.

Yuce, Huseyin, The fundamental frequencies of plates with a core.

STATISTICS AND PROBABILITY

Li, Fang, Testing for the equality of two autoregressive and regression functions.

Sirbu, Corina Mihaela, Assessing medical costs from a longitudinal model.

Sirbu, George, Adaptive designs with covariates.

Michigan Technological University (6)

MATHEMATICAL SCIENCES

Keranen, Melissa, Transverse Steiner quadruple systems.

Kodippli, Asitha, Analysis of intraday dynamics of options trading B.

Milanov, Valentin, Search procedure for identifying gene-gene interaction based on entropy measures.

Senaratne, Maddumage Dona, Development and analysis of a micro-macro simulation.

Sha, Qiuying, Multi-locus association test for detecting complex disease genes.

Yapa, Gaitri, Covariate measurement error in dual systems models.

Oakland University (1)

MATHEMATICS AND STATISTICS

Zhang, Racheal, Some analytical characteristics of the ridge regression trace.

University of Michigan, Ann Arbor (18)

BIOSTATISTICS

An, Hyonggin, Robust model-based analysis of multivariate data with missing values.

Liu, Lei, Modeling recurrent events and medical cost data in the presence of a correlated terminating event.

Luo, Wen-Lin, General linear model for FMRI time series data: Model formulation, covariance estimation, and model selection.

McClure, Leslie, Analysis of clinical trial data where treatments favor different outcomes.

Min, Sung-joon, Group sequential methods for nonlinear models in clinical trials.

Xie, Dawei, Combining information from multiple surveys for small-area estimation: Bayesian approaches.

MATHEMATICS

Chiang, Sylvia Pek-Yin, On vacuum problems for different systems of conservation.

Keen, Benjamin, A kinetic scheme for gas dynamics on arbitrary grids.

Kennedy, Christopher, An exploration of deep matrix algebras.

Kuronya, Alex, Asymptotic cohomological functions on projective varieties.

Lilov, Krastio, Fatou theory in two dimensions.

Mitavskiy, Boris, A mathematical model of evolutionary computation and some consequences.

Nguyen, Quang-Minh, Entropic graphs for image registration.

Tung, Yan-Chun James, Fock spaces.

Woods, Kevin, Rational generating functions and lattice point sets.

STATISTICS

Dyson, Gregory, New techniques in clustering and microarray data analysis.

Vartivarian, Sonya, For the formation of weighting class adjustments for unit nonresponse in sample surveys.

Xi, Bowei, Estimating internal link loss rates using active network tomography.

Wayne State University (7)

MATHEMATICS

Aouina, Mokhtar, The moduli space of thickenings.

Geremew, Wondimagegneau, Metric regularity in variational analysis.

Habte, Aychiluhim, Application of variational analysis to welfare economics.

Ion, Cristina, Recursive estimation algorithms using stochastic approximation methods.

Lin, Runchang, Natural superconvergence in two- and three-dimensional finite element methods.

Liu, Yuanjin, Two-time-scale systems with Markovian regime switching.

Wang, Dong, Optimal control of differential inclusions in infinite dimensional spaces and semilinear evolution inclusions.

MINNESOTA

University of Minnesota, Twin Cities (10)

DIVISION OF BIOSTATISTICS, SCHOOL OF PUBLIC HEALTH

Huang, Xiaohong, Statistical methods for sample classification with microarray gene expression data.

Jin, Xiaoping, Multivariate lattice models for areal data with application to multiple disease mapping.

Zhi, Xin, Likelihood ratio tests for correlated time-to-event data using gamma frailty.

SCHOOL OF STATISTICS

Chen, Chao-Yin, Improving the chemical mass balance model.

de la Vega Gongora, Jorge, A power study of inverse regression methods.

Lazar, Radu, Methods for implementing Bayesian inference for some problems involving linear constraints.

Pontiggia, Laura, Topics in stochastic games.

St. Clair, Katherine, Some objective Bayesian methods for finite population sampling.

Wen, Xuerong (Meggie), Optimal sufficient dimension reduction in regression with categorical predictors.

Yang, Rong, Statistical modeling of multivariate longitudinal binary data.

MISSISSIPPI

University of Mississippi (4)

MATHEMATICS

Kuhl, Jaromy, On completing and avoiding partial Latin squares.

Page, Robert, Jr., On bilinear maps of order bounded variation.

Rayner, Ellen Gibson Johnston, The exchangeable negative binomial distribution and its applications.

Tyler, Benton, Tilings and packings of n-dimensional cubes.

MISSOURI

St. Louis University (1)

MATHEMATICS AND COMPUTER SCIENCE

Ohashi, Ryo, The isometry groups on prism manifolds.

University of Missouri, Columbia (4)

STATISTICS

Nashimoto, Kane, Multiple comparison techniques for order restricted models.

Rabie, Huwaida, Optimal designs for dose-finding in contingent response models.

Zhang, Zhigang, Nonproportional hazards regression models for survival analysis.

Zhao, Qiang, Nonparametric treatment comparisons for interval-censored failure time data.

University of Missouri, Rolla (1)

MATHEMATICS AND STATISTICS

Kytmanov, Alexey, Integral representations and holomorphic extension on toric varieties.

MONTANA

Montana State University (3)

MATHEMATICAL SCIENCES

Graham, Kimberly, An examination of the integration of graphing calculators in formal assessments that accompany high school mathematics textbooks.

Hyde, Scott, Robust methods for multivariate linear models with spectral models for scatter matrices.

Kosiak, Jennifer, Using asynchronous discussions to facilitate collaborative problem solving in college algebra.

University of Montana (2)

MATHEMATICAL SCIENCES

Perkins, David, Investigations of a chip-firing game.

Sloan, Deborah, A conflict in values: The dilemma of equity, diversity, and participation in higher mathematics.

NEBRASKA

University of Nebraska, Lincoln (3)

MATHEMATICS

Baeth, Nicholas, Representation theory of one-dimensional local rings of finite Cohen-Macaulay type.

Duncan, Benton, Universal operator algebras of directed graphs.

Koetz, Matthew, Algebraic constructions of low-density parity check codes.

NEW HAMPSHIRE

Dartmouth College (3)

MATHEMATICS

Cole, Daniel, On minimal surfaces in Martinet-type spaces.

Ryan, Nathan, Satake parameters of Siegel modular forms.

Williams, B. Venus, The mathematics of the coordinated and precise dance that keeps us alive.

University of New Hampshire (4)

MATHEMATICS AND STATISTICS

Alghanem, Maher, Evaluating the middle school mathematics teacher preparation program at Riyadh Teachers' College.

Bannon, Jon, Burnside factors, amenability defects and transitive families of projections in factors in type III.

Gao, Ming Chu, Free products of operator spaces and free Markov processes.

Yousefi, Hassan, Stable invariant subspaces, reflexivity, and BMO.

NEW JERSEY

New Jersey Institute of Technology (7)

MATHEMATICAL SCIENCES

Ambrosio, Christina, The control of frequency of a conditional oscillator simultaneously subjected to multiple oscillating inputs.

Champanerkar, Jyoti, Pitchfork bifurcations of invariant manifolds.

Lukyanov, Valery, Scattering matrix analysis of photonic crystals.

Mileyko, Yuriy, Theory and algorithms for swept manifolds intersections.

Muhammed, Hameed, Influence of surfactant on the breakup of a fluid jet in viscous surrounding.

Tran, Hoa, Numerical simulation of microwave heating of a target with temperature dependent electrical properties in a single mode cavity.

Zhou, Lin, Perturbation analysis on dispersive properties of microstrip.

Princeton University (8)

APPLIED AND COMPUTATIONAL MATHEMATICS

Downs, Oliver B., Learning, adaptive and optimization: The nonnegative Boltzmann machine and the tunneling salesman algorithm.

Oum, Sang-il, Graphs of bounded rank-width.

MATHEMATICS

Alexakis, Spyros, Local and global aspects of conformal geometry.

Asok, Aravind, Geometry of simple G-varieties.

Brumley, Farrell, Distinguishing cusp forms on the general linear group.

Bufetov, Alexander, Decay of correlations for the Rauzy-Veech-Zorich induction map and the central limit theorem for the Teichmüller geodesic flow.

De Sanctis, Luca, Structural approaches to spin glasses and optimization problems.

Gressman, Philip, $L^p - L^q$ estimates for Radon-like operators.

Rutgers University, New Brunswick (14)

MATHEMATICS

Blue, Pieter, Decay estimates and phase space analysis for wave equations on some black hole metrics.

Burdges, Jeffrey, Simple groups of finite Morley rank of odd type: Toward an endgame.

Chelluri, Thyagaraju, Equidistribution of roots of quadratic congruences.

Ciobanu, Laura Ioana, On the complexity of the endomorphism problem in free groups.

Curry, Eva, Characterization of low-pass filters for multivariable wavelets and some related questions.

Dalili, Kia, Cohomological methods for determining numerical invariants of algebras and modules.

Hartke, Stephen, Graph-theoretic models of spread and competition.

Lauve, Aaron, A quasideterminantal approach to quantized flag varieties.

Li, Xiaoqing, The orthogonality of Hecke eigenvalues of automorphic forms.

Medville, Kai, Existence and blow up behavior of planar harmonic functions satisfying certain nonlinear Neumann boundary conditions.

Ponce, Augusto, Some elliptic problems with singularities.

Rios, Alfredo Jose, Some problems on the pointwise convergence of wavelet series and Riesz products.

Sundberg, Eric, Fair and biased positional games.

Xu, Yongzhong, On the Morse index of a functional arising in contact form geometry.

Stevens Institute of Technology (1)

MATHEMATICAL SCIENCES

Kahl, Nathan, Enumerator polynomials and the enumeration of subgraphs of multigraphs.

NEW MEXICO

New Mexico State University, Las Cruces (2)

MATHEMATICAL SCIENCES

Al-Ayyoub, Ibrahim, The Ratliff-Rush closure and a minimal Groebner basis for certain affine monomial curves.

Garcia, Rebecca, On the minors of catalecticant matrices and on the coadunation of generalized crowns.

University of New Mexico (9)

MATHEMATICS AND STATISTICS

Aden, James, Model selection in kernel machine classification with application in bioinformatics.

Andries, Erie, Regularized least square classifiers: Application to leukemia disease classification.

DeCastro, Manuela, Stability of parabolic systems on a half-space and theoretical aspects of radiation.

Degnan, James, Gene tree distributions under the coalescent process.

Dohnal, Tomas, Optical bullets in $(2+1)$ Bragg resonant periodic structures and their interaction.

Doliga, Stanislaw, Real algebraic geometry.

Glubokov, Andrey, Jet spaces of the quantum plane.

Justo, Dagoberto, High order mimetic methods and absorbing boundary conditions.

Nazarov, Igor, A mathematical analysis for sustainable management of ecosystems II. Perfectly matched layers for Euler's linearized equation.

NEW YORK

City University of New York, Graduate Center (8)

PROGRAM IN MATHEMATICS

Diop, Serigne, Non-Gaussian models of financial markets: Paths simulation via series representation.

Kahrobaei, Delaram, Residual solvability, generalized free products, finitely generated nilpotent groups, free groups, and one-relator groups.

La Luz, José, The Bousfield-Kan spectral sequence for Moravalk-theory.

Leibman, George, Consistency strengths of modified maximality principles.

Nouri, Fereydoun, Graph homology.

Pineiro, Jorge, Mahler formula for dynamical systems on p^n.

Ushakov, Alexander, Fundamental search problems in group theory.

Zucker, Marc, Studies in cryptological combinatorics.

Columbia University (20)

BIOSTATISTICS

Cheng, Jianfeng, Evaluating and correcting guess effect in not perfect double-blinded clinical trials.

Li, Huiling, Analysis of incomplete HRQoL data in the REMATCH trial.

Wang, Cuiling, Regression analysis with missing data.

Wong, Kam-Fai, Statistical analysis of current status data.

Wu, Songmei, Nonlinear modeling strategies for metabolism rate data in brain imaging studies.

Wu, Ya-Chi, Linear regression with incomplete dependent variable.

MATHEMATICS

Hedden, Matthew, Knot Floer homology and cabling.

McInroy, Adam, Orbifold mirror symmetry for complex tori.

Moser, Harriet, Proving a manifold to be hyperbolic once it has been approximated to be so.

Niccolai, John, Triple product L-functions.

Qiu, Yannan, Special cycles on Siegel 3-folds.

Sherman, Morgan, The infinitely near Borel-fixed points on the Hilbert scheme.

Van Steirteghem, Bart, A classification of affine smooth spherical varieties.

Wambach, Eric, Integral representations on $U(2) \times U(3)$ and geometric applications.

STATISTICS

Hadjiliadis, Olympia, Change-point direction of two-sided alternatives in the Brownian motion model and its connection to the gambler's ruin problem with relative wealth perception.

Hernandez del-valle, Gerardo, First passage time densities of Brownian motion and applications to credit risk.

Ruiz-Mata, Jesus, Modeling credit and market risk and validation of models.

Wang, Hui, A new approach of detecting influential markers for complex phenotypes with genotype data.

Wang, Yuanjia, Non-parametric estimation of distribution functions from Kin-Cohort data.

Yan, Xin, Discriminant analysis using multi-gene profiles in molecular classification of breast cancer.

Cornell University (18)

APPLIED MATHEMATICS

Grasso, Catherine, Partial order graphs for multiple sequence alignment.

Guzman, Johnny, Pointwise estimates for discontinuous Galerkin methods and for the standard finite method with numerical integration.

He, Changhong, Estimation of volatilities under a Merton's jump-diffusion model and an uncertain volatility model.

Henniger, Jay, Small portfolio selection for benchmark tracking and option hedging under basis risk.

Shontz, Suzanne, Numerical methods for problems with moving meshes.

Singer, Michael, Efficient time splitting methods for reacting flow calculations.

MATHEMATICS

Belk, James, Thompson's group F.

Charalambous, Nelia, On the LP spectrum of the Hodge Laplacian and logarithmic Sobolev inequalities on non-compact manifolds.

Ciubotaru, Dan, Unitary representations of exceptional p-adic groups.

Cortissoz, Jean, On the Ricci flow in rotationally symmetric manifolds with boundary.

Francisco, Christopher, Hilbert functions and graded free resolutions.

Gabay, Yuval, Double jump inversions and strong minimal covers in the Turing degrees.

Greenberg, Noam, The role of true finiteness in the admissible recursively enumerable degrees.

Ku, Ja Eun, Least-squares methods for second-order elliptic partial differential equations.

Leykekhman, Dmitriy, Pointwise weighted error estimates for parabolic finite element equations.

Lin, Yi, Equivariant symplectic Hodge theory and strong Lefschetz manifolds.

Schwartz, Fernando, Scalar curvature problems on manifolds with boundary.

Zhou, Hilibin, Minimax estimation with thresholding and asymptotic equivalence theory for Gaussian variance regression.

Rensselaer Polytechnic Institute (6)

MATHEMATICAL SCIENCES

Ji, Xiaoyun, Clique partition problem with minimum size requirement.

Peng, Jufeng, Multiple robot coordination: A mathematical programming approach.

Scherzer, David, Multi-dimensional cellular chords.

Thorp Kusel, Elizabeth, New parabolic equation solutions for high frequency and elastic media problems.

Xin, Jianguo, Aspects on discontinuous Galerkin solutions of hyperbolic conservation laws.

Xue, Yonggang, Hermite subdivision schemes and jet subdivision surfaces.

State University of New York, Albany (1)

MATHEMATICS AND STATISTICS

Kures, Osman, The Bergman projection and related integral operators on the unit ball in C^n.

State University of New York, Binghamton (4)

MATHEMATICAL SCIENCES

Koban, Lori Jean, Two generations of biased graphs: Circuit signatures and modular triples of matroids and biased expansions of biased graphs.

Palmatier, Joshua, M-zeroids: Structure and categorical equivalences.

Saldarriaga, Omar Daria, Fusion algebras, symmetric polynomials, orbits of N-groups and rank level duality.

Sperber, Ron, A comparison of assembly maps in algebraic K-theory.

State University of New York, Buffalo (9)

MATHEMATICS

Agarwal, Anurag, Some quartic Diophantine equations.

Blanariu, Mihaela, Asymptotic analysis of patterns and islands in strained alloy films.

Cheptea, Dorin, A topological quantum field theory for the Le-Murakami-Ohtsuki invariant of three-dimensional manifolds.

Fan, Jiangnan, Decorated link invariants.

Georgescu, Catalin, The boundary map and the connecting set in Conley index theory.

Huynh, Vu, Reidemeister torsion, twisted Alexander polynomial, the A-polynomial, and the colored Jones polynomial of some classes of knots.

Kuppum, Srikanth, Edge polynomials, Newton and norm polygons of a family of hyperbolic manifolds.

Li, Yuan, Symmetric Boolean functions and their extension to finite fields.

Tekalign, Wondimu, Evolution equation for a thin epitaxial film on a deformable substrate.

State University of New York, Stony Brook (20)

APPLIED MATHEMATICS AND STATISTICS

Curry, Michael, Applications of stochastic methods for periodic scheduling.

Greene, Nataniel, Reconstructing piecewise smooth functions from their spectral data.

Kim, Jieun, Path analysis of the visual attention network using fMRI data.

Kim, Youngeun, Bidomain simulation of spiral waves of cardiac tissue in electrical cardiology.

Lee, Taewon, Statistical error analysis in numerical solutions of shock physics problems.

Li, Juan, Longitudinal, survival and joint modeling analysis with Bayesian applications.

Tintle, Nathan, Reclassification as a cost effective sample design for estimation and testing association when misclassification errors are present.

Yu, Yan, Errors in numerical solutions of shock physics problems.

MATHEMATICS

Chiose, Ionut, On the embedding of q-complete manifolds.

Friedman, Joshua, The Selberg trace formula and Selberg zeta-function for cofinite Kleinian groups with finite-dimensional unitary.

Gonzalez, Eduardo, Quantum cohomology and symplectomorphism type of S^1-manifolds with isolated fixed point.

Janks, Gregory, Some remarks on local connectivity at the Feigenbaum point.

Javaheri, Mohammad, Conformally compact Einstein metrics with symmetry in dimension 5.

Kim, Young Deuk, The Thurston boundary of Teichmüller space and complex of curve.

Liu, Yuan, Einstein metrics of positive sectional curvature on weighted projective planes.

Moraru, Dan, A new construction of anti-self-dual 4-manifolds.

Namazi, Hossein, Heegaard splittings and hyperbolic geometry.

Radulescu, Anca, The connected isentropes conjecture in a space of quartic polynomials.

Valdez, Rogelio, Self-similarity of the Mandelbrot set and parabolic bifurcation.

Xu, Ming, Bauer-Furuta invariant and cohomotopy refined Ruberman invariant.

University of Rochester (2)

MATHEMATICS

Qiu, Xing, On stochastic flows and backward stochastic differential equations with reflections.

Tang, Wan, Decay rates of oscillatory integral operators.

NORTH CAROLINA

Duke University (11)

INSTITUTE OF STATISTICS AND DECISION SCIENCES

Gunn, Laura, Bayesian order restricted methods with biomedical applications.

Rappold, Ana, Using expert knowledge when the data model is not known in modeling the mixed layer of the Atlantic Ocean.

Rigat, Fabio, A beta-Stacy proportional hazards model and Bayesian Weibull survival trees.

MATHEMATICS

Buckingham, Robert, Long-time asymptotics of the nonlinear Schrödinger equation shock problem.

Cain, John, Issues in the one-dimensional dynamics of a paced cardiac fiber.

Curto, Carina, Matrix model superpotentials and Calabi-Yau spaces: An ADE classification.

Feist, Andrew, Two problems in delay differential equations.

Fox, Daniel, Second order families of coassociative 4-folds.

Yang, Guoqiang, Quantitative models for dorsal closure in drosophila embryos.

Yasaki, Dan, On the existence of spines for $\mathbb{Q}$-rank 1 groups.

Ying, Wenjun, A multilevel adaptive approach for computational cardiology.

North Carolina State University (27)

MATHEMATICS

Bidwell, John, Discrete nonautonomous dynamical systems, periodic dynamical systems.

Cook, William, Affine Lie algebras, vertex operator algebras and combinatorial identities.

Dozier, Richard, Existence and analysis of the limiting spectral distribution of large dimensional information-plus-noise.

Finkel, Daniel, Global optimization with the DIRECT algorithm.

Gibson, Nathan, Terahertz-based electromagnetic interrogation techniques for damage detection.

Hatch, Andrew, Model development and control design for high speed atomic force microscopy.

He, Taiping, Reaction-diffusion systems with discontinuous reaction functions.

Hillman, Rebecca, Relationship between symmetric brace algebras and pre-Lie algebras.

Jackson, Farrah, Characterization of involutions of $SP(2N, K)$.

Kyei, Yaw, Numerical method and control theory.

Levy, Rachel, Partial differential equations of thin liquid films: Analysis and numerical simulation.

Perry, John, Combinatorial criteria for Gröbner bases.

Taylor, Dewey, Fine Bruhat intersections for reductive monoids.

Wood, Lisa, Solvable length in Lie algebras, associative algebras and matrix groups.

Yang, Xingzhou, Immersed interface method for elasticity problems with interfaces.

STATISTICS

Chen, Li, Bayesian hierarchical spatial-temporal models for wind prediction.

Feng, Sheng, Statistical studies of genomics data.

Gosky, Ross, Bayesian analysis and matching errors in closed population capture recapture models.

Hwang, Sang Pil, Dynamic time series analysis using logistic function.

Li, Erning, Estimation for generalized linear models when covariates are subject specific parameterina mixed models with longitudinal measurements.

Lin, Jiang, Topics in application of nonparametric smoothing.

Lokhnygina, Yuliya, Topics in design and analysis of clinical trials.

Lu, Na, Statistical issues in coherent risk management.

Rao, Harshavardhana, Contagion in financial markets: Two statistical approaches.

Remlinger, Katja, Statistical design and analysis of high throughput screening data using pooling experiments and data mining techniques.

Wang, Jing, An optimization approach for the parameter estimation of the nonlinear mixed effects models.

Wu, Yujun, Controlling variable selection by the addition of pseudo-variables.

University of North Carolina at Chapel Hill (14)

BIOSTATISTICS

Ahn, Chaehyung, Detecting linked changes in fast evolving genomes.

Begum, Munni, Statistical TK/TK dose response modeling of toxicity.

Capuano, George, A joint latent autoregressive model for patient dropout and longitudinal health related quality of life subject to informative missingness.

Deng, Shibing, Some aspects on linear model analysis of microarray gene expression data.

Gurka, Matthew, The Box-Cox transformation in the general linear mixed model for longitudinal data.

Jung, Inkyung, Robust inference in unbalanced heteroscedastic one-way random effects models using rank-based methods.

Lu, Bing, Estimating correlation parameters in cluster intervention trials with binary responses using estimating equations.

Neelon, Brian, Bayesian order restricted inference.

Pan, Zhiying, Regression analysis for complex longitudinal survey data.

Robbins, Tania, Combining microarrays with QTL analysis.

Schwartz, Todd, A study of sample size recalculation with particular focus on active- and placebo-controlled non-inferiority trials.

Wang, Lily, Some statistical aspects of the analysis of genomic sequences.

MATHEMATICS

Chang, Soo-Ah, Factorizations in some special block monoids.

DiFranco, Jeffrey, Gibbs phenomenon for the defocusing nonlinear Schrödinger equation.

University of North Carolina at Charlotte (7)

MATHEMATICS AND STATISTICS

Guo, Xunxiang, On frame wavelets.

Herron, John, Weighted conditional expectation operators on L^p space.

Hill, David, Time delayed dynamical systems and the Duffing equation.

Hill, Jennifer, An inventory optimization model with Markov-modulated commodity prices.

Jang, Bong Soo, Homogenization of irregular shaped composite materials in periodic structures.

Jin, Xiaodong, Contributions to kernel methods and estimation of extreme value index.

Xiong, Huaiyu, Nonparametric and semiparametric functional coefficient instrumental variable models.

OHIO

Bowling Green State University (6)

MATHEMATICS AND STATISTICS

Grinevitch, Oxana, Student understanding of abstract algebra: A theoretical examination.

Harrar, Solomon, Linear models under non-normality.

Kerns, (Gary) Jay, Signed measures in exchangeability and infinite divisibility.

Rolli, William, Frames and operator decompositions in Hilbert spaces.

Sanders, Rebecca, Hypercyclic and supercyclic operators in the weak topology of Banach spaces.

Xu, Jin, Robustness study of some multivariate tests in generalized linear models.

Case Western Reserve University (12)

EPIDEMIOLOGY AND BIOSTATISTICS

Beaird, Heather, Putative DNRH agonist therapy and dementia: An application of medicare hospitalization claims data.

Kasehagen, Laurin, Duffy-negativity and vivax malaria epidemiology: A study of dual and multiple-record system estimation and patterns of association in Papua New Guinea.

Mascha, Edward, Assessing individual treatment effect heterogeneity for binary outcomes.

Nock, Nora, Development and application of DNA damage and DNA repair indices to prostate cancer.

Orloff, Mohammed, Analysis of genes associated with focal segmental glomerulosclerosis.

Stein, Catherine, Genetic and environmental influences on tuberculosis susceptibility.

Traore, Fatoumata, A conceptual model for understanding sexual risk among persons living with HIV/AIDS.

Zhu, Guohua, Ascertainment in two-phase sampling designs for segregation and linkage analysis.

MATHEMATICS

Hahn, Philip, Origination and propagation of reaction diffusion waves in three spatial dimensions.

STATISTICS

Kitska, David, Simultaneous inference for functional linear models.

Piryatinska, Alexandra, Inference for the Lévy models and their applications in medicine and statistical physics.

Snyder, Scott, Evaluation of an implantable medical device: Design and modeling of a three dimensional workspace.

Kent State University (2)

MATHEMATICAL SCIENCES

Fontes, Natacha, Multi-dimensional polynomial inequalities; norms of interpolation operators.

Zeibig, Gerd, Categorical methods in functional analysis.

Ohio State University (15)

MATHEMATICS

Antal, Tamas, Cyclic homology and Hopf algebras.

Ghazaryan, Anna, Nonlinear convective instability of fronts: A case study.

Guloglu, Ahmet M., On low-lying zeros of automorphic L-functions.

Herbig, Anne-Katrin, A sufficient condition for subellipticity of the $\overline{\partial}$-Neumann problem.

Kaygun, Atabey, Bialgebra cyclic homology with coefficients.

Liu, Xing, Rigorous exponential asymptotics for a nonlinear third order difference equation.

Manukian, Vahagn, Existence and stability of multi-pulses with applications to nonlinear optics.

Roman, Cosmin, Baer and quasi-Baer modules.

Wang, Jin, A numerical approach for the interfacial motion between two immiscible incompressible fluids.

STATISTICS

Chen, Haiying, Ranked set sampling for binary and ordered categorical variables with applications in health survey data.

Duncan, Kristin, Case and covariate influence: Implications for model assessment.

Gibellato, Marilisa, Stochastic modeling of the sleep processes.

Pavlicova, Martina, Thresholding in fMRI images.

Sun, Junfeng, Stochastic models for compliance analysis and applications.

Wang, Tao, Statistical analysis of gene expression experiments.

Ohio University (4)

MATHEMATICS

Al-Hazmi, Husain, A study of CS and Σ-CS rings and modules.

Alsulami, Saud, On evolution in Banach spaces and commuting semigroups.

Castillo, Rene, Generalized non-autonomous Kato classes and nonlinear Bessel potentials.

Constantin, Elena, Optimization and flow invariance via high order tangent cones.

University of Akron (1)

THEORETICAL AND APPLIED MATHEMATICS

Kim, Shinuk, A numerical study of parameter identification in linear and nonlinear elastic and viscoelastic plates.

University of Cincinnati (4)

MATHEMATICAL SCIENCES

Galstyan, Anahit, Existence and number of global solutions to model nonlinear partial differential equations.

Oh, Jiyeon, Error analysis of the exponential Euler method and the mathematical modeling of the retinal waves in neuroscience.

Zhao, Shuhong, Statistical inference on binomial proportions.

Zhou, Rong, Bayesian analysis of log-binomial models.

OKLAHOMA

Oklahoma State University-Stillwater (1)

STATISTICS

Bagour, Ali, Probability proportional to size sampling.

University of Oklahoma (4)

MATHEMATICS

Borovikova, Marina, Partial regularity of weak solutions of quasilinear elliptic systems and weak Harnack inequalities.

Gomarteli, Mamouka, On the normal accessibility property of actions on manifolds: Ramifications in pseudo semigroups of local diffeomorphisms.

Ou, Ye-Lin, P-harmonic morphisms, minimal foliations, and conformal deformations of metrics.

Xu, Tao, Model-data synthesis in terrestrial ecosystem modeling: Inverse analysis and uncertainty analysis.

OREGON

Oregon State University (2)

STATISTICS

Amer, Safaa, Neural network imputation: A new fashion or a good tool.

Jia, Siwei, Optimization, conservation and valuation of contingent claims in economic resource management under uncertainty.

Portland State University (2)

MATHEMATICS AND STATISTICS

Fish, Daniel, Metriplectic systems.

Santoro, Emanuele, Thermodynamic metrics and the geometry of equilibrium surfaces.

University of Oregon (5)

MATHEMATICS

Harker, Hayden, Cohomology of a sub-Hopf algebra of a Steenrod algebra.

Loft, Brian, Connected components of the space of positive scalar curvature metrics on spheres.

Merchant, Eric, Structural properties of Hadamard designs.

Nordstrom, Hans, Associated primes over Ore extensions and generalized Weyl algebras.

Ruiz, Efren, A classification theorem for direct limits of extensions of circle algebras by purely infinite C^*-algebras.

PENNSYLVANIA

Carnegie Mellon University (14)

MATHEMATICAL SCIENCES

Baia, Margarida, Variational multiscale problems and applications to thin films.

Brown, Chad, Set comprehension in Church's type theory.

Janecek, Karel, Futures trading model with transaction costs.

Ojakian, Kerry, Combinatorics in bounded arithmetic.

Pankavich, Stephen, The Vlasov Poisson system with infinite mass and energy.

Petrelli, Luca, Variational principle for general diffusion problems.

Pirvu, Traian, Maximizing portfolios growth rate under risk constraints.

Popovici, Cristina, Coupled singular perturbations and homogenization.

Rivera, Juan, Portfolio choice under risk limits: A coherent approach.

Tudorascu, Adrian, Optimal mass transportation methods for gradient flows in the weak topology.

Winger, Aris, On pattern formation in a one dimensional viscoelastic system with numerical computation.

STATISTICS

Araneda, Anita, Statistical inference in mapping and localization for mobile robots.

Dunn, Michelle, Applying particle-filter and path-stack methods to detecting anomalies in network traffic volume.

Slavkovic, Aleksandra, Statistical disclosure limitation beyond the margins: Characterization of joint distributions for contingency tables.

Lehigh University (1)

MATHEMATICS

Moller, Trisha, t-Split interval orders.

Pennsylvania State University, University Park (18)

MATHEMATICS

Damjanovic, Danijela, Local rigidity of partially hyperbolic higher rank Abelian actions on the torus.

Gerenrot, Dmitry, Residue formulation of Chern character on smooth manifolds.

Handzy, Nestor, Experimental observations and mathematical description of micellar fluid flow.

Krat, Svetlana, Approximation problems in length geometry.

Lee, Young-Ju, Modelling and simulations of non-Newtonian fluid flows.

Raven, Jeffrey, An equivariant bivariant Chern character.

Saunders, Christopher, Floer homology for almost Hamiltonian isotopies.

Shoenthal, David, Several results concerning low-dimensional length spaces.

Sostarecz, Michael, Experiments and modeling in viscoelastic fluids: Dimpled drops and beaded filaments.

Ugarcovici, Ilie, Symbolic dynamics for geodesic flows, hyperbolic measures and periodic orbits.

STATISTICS

Antoniou, Efi, Nonparametric imputation and (mid-)rank test for mixed effects models with missing data.

Bai, Steven, Cluster analysis of high dimensional data and dimension reduction for regression.

Ding, Rui, Multiple response ridge analysis.

Kwanisai, Mike, Estimation in link-tracing designs with subsampling.

Wang, Haiyan, Testing in multifactor heteroscedastic anova and repeated measures design with large number of levels.

Wang, Shaoli, Dimension reduction in regression.

Yang, Ke, Using the Poisson kernel in model building and selection.

Zhan, Xiaojiang, Bayesian semiparametric inference based on ranks.

Temple University (8)

MATHEMATICS

Mammo, Behailu, A mean value theorem for discriminants of abelian extensions of a number field.

Nguyen, Truyen Van, On Monge-Ampère type equations arising in optimal transportation problems.

Tesemma, Mohammed Seid, Reflection groups and semigroup algebras in multiplicative invariant theory.

Wen, Xiangdong, Rigorous experimental mathematics applied to the Goulden-Jackson method, construction of symmetric chains and the Sprague-Grundy function.

STATISTICS

Cai, Gengqian, Further results on Simes test and Benjamin-Hochberg false discovery rate procedure.

Deng, Ling, Heterogeneous and space-dependence of substitution rates—an application of zero-inflated models GEE and composite likelihood methods.

Li, Li, Design and analysis of DNA microarray data—model validation and sensitivity analysis.

Zhang, Hongyan, A Cox proportional hazard model for monotonic severity marked failures.

University of Pennsylvania (14)

MATHEMATICS

Bana, Gergely, Soundness and completeness results for the formal model of symmetric encryption.

Barwick, Clark, (∞, n)-Cat as a closed model category.

Byun, Jungyoon, A generalization of Connes-Kreimer Hopf algebra.

Hindawi, Mohamad, Asymptotic invariants of Hadamard manifolds.

Lee, Dong Uk, p-Adic monodromy of the ordinary subscheme of Picard modular variety.

Maxim, Laurentiu, Alexander invariants of hypersurface complements.

Mehrotra, Sukhendu, Triangulated categories of singularities, matrix factorizations and LG-models.

Sabitova, Maria, Root numbers of Abelian varieties and representations of the Weil-Deligne group.

Tripp, James, Contact structures on open 3-manifolds.

Yap, Shirley, Prescribing curvature forms: Solvability and obstruction results.

STATISTICS

Greery, Robert Alan, Jr., Noncompliance, covariance adjustment, and matching in randomized controlled trials.

Liu, Naiping, Covariance selection and estimation through modified Cholesky decomposition and the value/growth spreads as predictors of returns.

Wang, Liang, A new adaptive variable selection criterion and its applications in financial markets.

Zhang, Liangyue, Efficient estimation in marginal partially linear models for longitudinal/clustered data using splines.

University of Pittsburgh (17)

BIOSTATISTICS

Dang, Qianyu, Using trajectories from a bivariate growth curve of covariates in a Cox model analysis.

He, Shui, Generalized additive models for data with concurvity: Statistical issues and a novel model fitting approach.

Sang, Weilian, Empirical comparison of U.S. Census Bureau population estimates used in morality and population data system of the University of Pittsburgh, Department of Biostatistics.

MATHEMATICS

Cross, Wesley, Principal value volumes of p-adic rational polyhedra.

Domokos, Andras, On the regularity of p-harmonic functions in the Heisenberg group.

Dunca, Argus Adrian, Space averaged Navier-Stokes equations in the presence of walls.

Grigoryan, Vahan, Multimodal biometric analysis for monitoring of wellness.

Kaya, Songul, Numerical analysis of a variational multiscale method for turbulence.

Krisner, Ed, Multi-bump solutions of a one dimensional Wilson-Cowan type model.

Merdan, Huseyin, Renormalization group methods in applied mathematical problems.

Pahlevani, Faranak, Sensitivity analysis of eddy viscosity models.

Scott-Pomerantz, Colleen, The k-epsilon model.

STATISTICS

Czanner, Gabriela, Applications of statistics in neuroscience.

Gogtas, Hakan, Improving coverage of rectangular confidence interval.

Jia, Gang, Use of simultaneous inference under order restriction, stepdown testing procedure and stage-wise sequential optimal design in clinical dose study.

Sengul, Tulay, The time varying autoregressive model with covariates to analyze longitudinal data with missing values.

Sun, Zhuoxin, Repeated measures mixture modeling with application to neuroscience.

RHODE ISLAND

Brown University (15)

APPLIED MATHEMATICS

Chen, Shanqin, The heterogeneous multiscale method based on the discontinuous Galerkin and finite volume schemes.

Chen, Ting-Li, On the statistics of natural images.

Curran, John, Adaptive learning among interacting agents: An analysis of the many-agent, long-term limit.

Gao, Yun, Statistical models in neural information processing.

Harrison, Matthew, Discovering compositional structure.

Sirisup, Sirod, Issues in low-dimensional modeling of unsteady flows: Convergence, asymptotic stability and reconstruction procedures.

Strain, Robert, Some applications of an energy method in collisional kinetic theory.

Xu, Jin, High Reynolds number simulation and drag reduction techniques.

Xu, Zhengfu, Anti-diffusive flux corrections for high order finite difference WENO schemes.

Zhang, Xiao, On large deviations approximations for occupancy models.

MATHEMATICS

Acquista, Karen, A generalization of class field theory using motivic complexes.

Jones, Rafe, Galois martingales and the hyperbolic subset of the p-adic Mandelbrot set.

Joyce, Michael, Rational points on the E_6 cubic surface.

Lauzon, Michael, Harmonic analysis for vector-valued functions with operator weights.

Wick, Brett, Analytic projections, the geometry of holomorphic vector bundles and applications to the corona problem.

University of Rhode Island (3)

MATHEMATICS

Chatterjee, Esha, Global behavior in rational difference equations.

Collins, Jarred, Moore-Greig designs.

Faubert, Glenn, Caterpillar tolerance representations of graphs.

SOUTH CAROLINA

Clemson University (4)

MATHEMATICAL SCIENCES

Hunt, Brian, Multiobjective programming with convex cones: Methodology and applications.

Limbupasiriporn, Jirapha, Partial permutation decoding for codes from designs and finite geometrics.

Limbupasiriporn, Prasit, Hidden subgroup problem in quantum computing.

Roop, John Paul, Variational solution of the fractional advection dispersion equation.

Medical University of South Carolina (1)

BIOSTATISTICS, BIOINFORMATICS AND EPIDEMIOLOGY

Yoo, Wonsuk, Bayesian hierarchical changepoint model for longitudinal biomarkers.

University of South Carolina, Columbia (9)

EPIDEMIOLOGY AND BIOSTATISTICS

Moran, Robert, Working and analyzing clinical data in a family practice.

Shoultz, Gerald, Sprawl, measures of sprawl and chronic obstructive pulmonary disease: A Bayesian spatial analysis.

Sutton, Shae, Modeling of spatially-referenced event data in a South Carolina population.

MATHEMATICS

Kidd, Travis, On the irreducibility of Laguerre polynomials of $L_m(m)(x)$.

Vatchev, Vesselin, Analysis of the intrinsic mode functions.

Zhao, Jie, Multigrid methods for fourth order problems.

STATISTICS

Hare, David, Simultaneous inference for ratios of linear combinations of general linear model parameters.

Han, Jun, Parametric latent class model for longitudinal markers and recurrent events.

Stocker, Russell, A general class of parametric models for recurrent event data.

TENNESSEE

University of Memphis (3)

MATHEMATICAL SCIENCES

Montagh, Balázs, Unavoidable substructures.

Schroeder, Jason, Estimation from response-biased incomplete data and supplementary information.

Zhong, Ping, Stochastic modeling of HIV pathogenesis under therapy and vaccine.

University of Tennessee, Knoxville (2)

MATHEMATICS

Iskra, John, Decidability in algebraic geometry.

Vasilevska, Violeta, Fibrator properties of PL manifolds.

Vanderbilt University (1)

MATHEMATICS

Sonkin, Dmitriy, On groups of large exponents n and n-periodic products.

TEXAS

Baylor University (3)

MATHEMATICS

Da Cunha, Jeffrey, Lyapunov stability and Floquet theory for nonautonomous linear dynamic systems on time scales.

Karna, Basant K., Comparison of smallest eigenvalues and extremal points.

STATISTICAL SCIENCE

Clark, Deeanna Antosh, Statistical issues concerning modeling and evaluating student achievement and school accountability.

Rice University (3)

MATHEMATICS

Meng, Zheng, Geometric variational problems with cross-sectional constraints.

Trout, Aaron, Spaces with positive combinatorial curvature.

Zhang, Jun, Geometric compactification of moduli space of cubic surfaces and Kirwan blowup.

Texas A&M University (24)

MATHEMATICS

Feng, Zhaosheng, Some results on the wave equation with Van der Pol type nonlinear boundary condition and the Burgers-Korteweg-de Vries equation.

Hamid, Sami, On the structure of a class of operators.

Hoang, Luan, Asymptotic expansions of the regular solutions to the 3D Navier-Stokes equations and applications to the analysis of the helicity.

Kolev, Tzanio, Dual least-squares methods for computational electromagnetics.

Ryan, John, Global existence of reaction diffusion equations over multiple domains.

Wang, Yanqiu, Preconditioning for the mixed formulation of linear plane elasticity.

Yao, Xudong, A min-max method for finding multiple critical points in Banach space.

STATISTICS

Apanasovich, Tatiyana, Testing for spatial correlation and semiparametric spatial modeling of binary outcomes with application in aberrant crypt foci in colon carcinogenesis experiments.

Bae, Kyounghwa, Bayesian model based approaches with MCMC computation to some bioinformatics problems.

Chang, Ilsung, Bayesian inference on mixture models and their applications.

Dunlap, Mickey, Using the bootstrap to analyze variable stars data.

Hu, Zonghui, Semiparametric functional data analysis for longitudinal/clustered data: Theory and application.

Ju, Hyunsu, Topics in analyzing longitudinal data.

Jung, Jeesun, High resolution linkage and association study of quantitative trait loci.

Kim, Hyun Sun, Topics in ordinal logistic regression and its applications.

Ko, Kyungduk, Bayesian wavelet approaches for parameter estimation and change point detection in long memory processes.

Lee, Ho-Jin, Functional data analysis classification and regression.

Leyk Williams, Malgorzata (Gosia), FLARE assay images in colon carcinogenesis.

Liu, Li-Yu Daisy, Coefficient of intrinsic dependence a new measure of association.

Pokta, Suriani, Bayesian model selection using exact and approximated posterior probabilities with applications to star data.

Ryu, Duchwan, Bayesian regression analysis with longitudinal measurements.

Song, Joon Jin, Bayesian multivariate spatial models and their applications.

Song, Juhee, Bootstrapping in a high dimensional but very low sample size problem.

Spinka Holan, Christine, Gene environment interactions in genetic epidemiology.

Texas Tech University (5)

MATHEMATICS AND STATISTICS

Franklin, Scott, A computational three-field methodology for non-conforming finite elements over partitioned domains.

Khoujmane, Ali, Improving regression function estimators.

Murphy, Eric, Complex variables and circle packing.

Swim, Edward, Non-conforming finite element methods for fluid-structure interaction.

Willis, Nicholas, Singular points of real sextic curves.

University of Houston (4)

MATHEMATICS

Boiarkine, Oleg, Mixed hybrid finite element methods for diffusion equations on nonmatching meshes.

Jacobs, Philip, Symmetric attractors with non-trivial isotropy.

Martynenko, Andrey, Numerical methods for advection-diffusion equations on locally refined meshes.

Pepper, Ryan, Binding independence.

University of North Texas (2)

MATHEMATICS

Coiculescu, Ion, Dynamics, thermodynamic formalism and perturbations of transcendental entire functions of finite singular type.

Ghenciv, Petre, Hamiltonian cycles in subset and subspace graphs.

University of Texas, Arlington (2)

MATHEMATICS

Dimitrov, Dobromir, Nonstandard finite difference methods for dynamical systems with applications in mathematical biology.

Zhu, Xiao Ping, Preliminary test and shrinkage estimators for the mean of bivariate normal distribution.

University of Texas, Austin (13)

MATHEMATICS

Baker, Kenneth, Knots on once-punctured torus fibers.

Condon, John, Mahler measure evaluations in terms of polylogarithms.

Fukshansky, Leonid, Algebraic points of small height with additional arithmetic conditions.

Kelliher, James, The vanishing viscosity limit for incompressible fluids in two dimensions.

LaMar, M. Drew, Human acoustics: From vocal chords to inner ear.

Lehr, Heather, Analysis of a Darcy-Stokes system modeling fluid flow in vuggy porous media.

Parker, Adam, An elementary construction of $M_{0,0}(\mathbb{P}^r, d)$.

Petersen, Kathleen, One-cusped congruence subgroups of $PSL_2(\mathcal{O}_K)$.

Portillo-Bobadilla, Francisco, Computations on an equation of the BSD type.

Silvestre, Luis, Regularity of the obstacle problem for a fractional power of the Laplace operator.

Sinclair, Christopher, Multiplicative distance functions.

Stoikov, Sasha, Optimal strategies in incomplete financial markets.

Teixeira, Eduardo, Regularity of free boundary in variational problems.

University of Texas, Dallas (5)

MATHEMATICAL SCIENCES

Banks, Troy, Invariant kernels and their orthogonal polynomials.

Barakat, Moe, Polynomials in several noncommuting variables and some of their asymptotic properties.

Costa, Fred, Structured matrix calculations via quaternions.

Navarra-Madsen, Junalyn, Colorability, tangles and quandles.

Odushkin, Taras, Mathematical models of atomic scale deformations and spatial nonuniformities in solid bodies.

UTAH

Brigham Young University (1)

MATHEMATICS

Brown, Sarah, A numerical scheme for Mullins-Sekerka flow in 3-space dimensions.

University of Utah (4)

MATHEMATICS

Cavaleri, Renzo, A topological quantum field theory of intersection numbers for moduli spaces of admissible covers.

Folias, Stefanos, Stimulus-induced waves and breathers in synaptically-coupled neural networks.

Le, An, Nonlinear eigenvalue problems.

Sato, Fumitoshi, Relations in tanto logical rings by localization.

VIRGINIA

Old Dominion University (2)

MATHEMATICS AND STATISTICS

Mav, Deepak, Statistical analysis of longitudinal and multivariate discrete data.

Walker, Steven, The straggling Green's function method for ion beam transport.

University of Virginia (6)

MATHEMATICS

Helmstutter, Randall, Quillen equivalent categories of functors.

Richardson, Pamela, Centroids of quadratic Jordan superalgebras.

Roche, Jennifer, Radices and matrix rings.

STATISTICS

Chan, Kuo-Chen, Proposal of a new semiparametric method that does not rely on the assumption of normality in the transformed data and is suitable for non-normally distributed transformed data.

Guise, Thomas, *D*-optimal biased coins for clinical trials.

Soukup, Matthew, Evaluating classification performance.

Virginia Polytechnic Institute and State University (9)

MATHEMATICS

Brunnhofer, Harald, Forced capillary-gravity waves in a 2D rectangular basin.

Chinyoka, Tirivanhu, Numerical simulation of stratified flows and droplet deformation in 2D shear flow of Newtonian and viscoelastic fluids.

Cline, Danny, On the computation of invariants in non-normal, non-pure cubic fields and in their normal closures.

Colon-Reyes, Omar, Monomials dynamical systems over finite fields.

Krueger, Denise, Stabilized finite element methods for feedback control of convection diffusion equations.

Pierson, Mark, Theory and application of a class of abstract differential-algebraic equations.

Rothstein, Ivan, Semiclassical scattering for two and three body problems.

Singler, John, Sensitivity analysis of partial differential equations with applications to fluid flow.

Vugrin, Kay, On the effects of noise on parameter identification optimization problems.

WASHINGTON

University of Washington (15)

APPLIED MATHEMATICS

Farnum, Edward, Stability and dynamics of solitary waves in nonlinear optical materials.

Hewitt, Sarah, Dynamics and stability of periodic spatial patterns in the optical parametric oscillator.

Komuro, Rie, Multi-objective evolutionary algorithms for ecological process methods.

Medlock, Jan, Integro-differential-equation models in ecology and epidemiology.

Pelanti, Marica, Wave propagation algorithms for multicomponent compression flow with applications to volcanic jets.

Peters, Matthew, Moist convection and the large scale tropical calculation.

Williams, David, Solving singular perturbation problems: An amplitude equation approach.

MATHEMATICS

Blair, Matthew, Strichartz estimates for wave equations with coefficients of Sobolev regularity.

Chebolu, Sunil, Refinements of chromatic towers and Krull-Schmidt decompositions in stable homotopy categories.

Hanusa, Christopher, A Gessel-Viennot-type method for cycle systems with applications to Aztec pillows.

Meyer, Daniel, Melting snowballs.

Nichifor, Alexandra, Iwasawa theory for elliptic curves with cyclic isogenies.

Skokan, Michael, Regularity of ghosts of geodesic X-ray transform.

Swanson, Jason, Topics in stochastic analysis.

STATISTICS

Gottardo, Raphael, Robust Bayesian analysis of gene expression microarray data.

Washington State University (5)

MATHEMATICS

Edmeade, Dean, Nonlinear stability analysis of hexagonal optical pattern formation in an atomic sodium vapor ring cavity.

Goff, Matthew, Multivariate discrete phase-type distributions.

Miller, James, Exon and intron detection in human genomic DNA.

Nag, Parthasarathi, Energy decay estimates for certain class of nonlinear systems arising in models of power systems.

Sasaki, Takashi, Maxwell's equations with temperature effect.

WEST VIRGINIA

West Virginia University (2)

MATHEMATICS

Martinez-Montejano, Jorge, Results on hyperspaces.

Niu, Jianbing, Graph minor.

WISCONSIN

Marquette University (1)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Luo, Jinghui, Construction and analysis of airway water clearance models.

Medical College of Wisconsin (1)

BIOSTATISTICS

Wong, Hong, Inference for the shared power variance function frailty model and correlated gamma frailty model.

University of Wisconsin, Madison (10)

STATISTICS

Barrios, Ernesto, Topics on engineering statistics.

Cheng, Bin, Some hypothesis testing results for two-way linear models in clinical trials.

Dahl, David, Conjugate Dirichlet process mixture models: Efficient sampling, gene expression and clustering.

Hong, Quan, A pseudo empirical likelihood approach to nonignorable nonresponse.

Jin, Chunfang, Contributions to the design and analysis of quantitative trait loci experiments.

Leng, Chenlei, Some problems in model selection.

Ma, Shuangge, Penalized *M*-estimation for partly linear transformation models with current status data.

Song, Yang, Two-way latent variable clustering.

Yuan, Ming, Automatic smoothing and variable selection.

Yuan, Zhilong, Designs for phase I cancer trials: Incorporation of grade information and multiple risk group studies.

University of Wisconsin, Milwaukee (2)

MATHEMATICAL SCIENCES

Bartl, Michael, On a hyper-Hilbert transform and singular integrals.

Yousuf, Muhammad, Smoothing schemes for inhomogenous linear and semilinear parabolic problems with nonsmooth data.

WYOMING

University of Wyoming (4)

MATHEMATICS

Christian, Justin, Three problems in combinatorial matrix theory.

Kim, In-Jae, Spectral properties of combinatorial classes.

STATISTICS

El-Houbi, Ashraf, Methods for resource selection studies using correlated data.

Greenwood, Mark, Functional data analysis for glaciated valley profile analysis.