Doctoral Degrees Conferred

2005–2006

ALABAMA

Auburn University (4)

MATHEMATICS AND STATISTICS

Bailey, Bradley, Related covering properties

Sindelrova, Petra, An example on moveable approximations of a minimal set in a continuous flow.

Turner, David, Coefficient space properties and a Schur algebra generalization.

Yan, Wen, Generalization of Ky Fan-Amir-Moez-Horn-Mirsky's result on the eigenvalues and real singular values of a matrix.

University of Alabama, Birmingham (3)

MATHEMATICS

Brouwer, Gaston, Green's functions from a metric point of view.

Lian, Jinguo, Pattern formation for some systems of nonlinear differential equations.

Zhang, Hongkun, Statistical properties of chaotic billiards.

University of Alabama, Huntsville (1)

MATHEMATICS

Wang, Yan, Acquisition numbers and competition-acquisition number.

University of Alabama, Tuscaloosa (11)

INFORMATION SYSTEMS STATISTICS AND MANAGEMENT SCIENCE

Cai, Biao, Evaluation of Gini S mean difference, mean deviation, and quasi-range as estimators of sigma for the performance of Shewhart x-bar control charts.

Haynie, James Brandon, Progressively phased bridge inspection process.

Kim, Young-il, Multivariation SPC for batch processes.

Mysore, Shrikanth, Three essays in scheduling.

Saithanu, Kidakan, Neural networks and multivariate quality control.

Shaltayev, Dmitriy, The value of market information in serial supply chains with Markov-modulated demand.

Watkins, Wade, An efficient search for identifying unobservable factors.

MATHEMATICS

Gong, Minqing G., Waiting time in a combined FCFS and STF queue.

Jun, Younbai, Domain decomposition algorithms for solving parabolic partial differential equations.

Rogers, Frank D., Optimal choices in an LFR system.

Ryang, Dohyoung, Finitely generated groups acting eometrically on generalized hyperbolic spaces.

ARIZONA

Arizona State University (3)

MATHEMATICS AND STATISTICS

Al-Sulami, Hamed Hamdan, C^*-algebras for boundary actions of abelian-by-cyclic groups.

Clark, Phil, The emergence of a classroom community of practice into mathematical structures course.

Lopez-Cruz, Roxana, Structured SIS epidemic models with applications to HIV epidemic.

University of Arizona (11)

MATHEMATICS

Belnap, Jason, Putting TAs into context: Understanding the graduate mathematics teaching assistant.

Leitner, Frederick, Deformation theory of noncommutative formal group in positive characteristics.

Pawloski, Robert, Computing the cohomology ring and Ext-algebra of group algebras.

PROGRAM IN APPLIED MATHEMATICS

Chitnis, Nakul, Using mathematical models in controlling the spread of malaria.

Espinola-Rocha, Jesus Adrian, Short-time asymptotic analysis of the Manakov system.

Forgoston, Eric, Initial-value problem for perturbations in compressible boundary layers.

Kano, Patrick, Development and analysis of high accuracy numerical methods for computational optics.

Linfoot, Andy, A case study of multi-threaded Buchberger normal form algorithm.

Schofield, Samuel, Dynamics of laminar jets in stratified fluids.

Soneson, Joshua, Optical pulse dynamics in nonlinear and resonant noncomposite media.

Soterwood, Jeanine, Model and analysis of provider-user games.

CALIFORNIA

California Institute of Technology (9)

APPLIED AND COMPUTATIONAL MATHEMATICS

Demanet, Laurent, Curvelets, wave atoms and wave equations.

Goulet, David, Mathematical models of the developing *C. elegans* hermaphrodite gonad.

Luo, Wuan, Wiener chaos expansions and numerical solutions of stochastic partial differential equations.

Strinopoulos, Theofilos, Upscaling immiscible two-phase flows in an adaptive frame.

CONTROL AND DYNAMICAL SYSTEMS

Shadden, Shawn, A dynamical systems approach to unsteady systems.

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 2005, to June 30, 2006) reported in the 2006 Annual Survey of the Mathematical Sciences by 222 departments in 164 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 2007 issue of the *Notices*.

Doctoral Degrees Conferred

MATHEMATICS

Gealy, Matthew, On the Tamagawa number conjecture for motives attached to modular forms.

Liu, Xiaoyu, On divisible codes over finite fields.

Navilarekallu, Tejaswi, On the equivariant Tamagawa number conjecture.

Sorensen, Claus, Level-raising for GSp(4).

Claremont Graduate University (7)

SCHOOL OF MATHEMATICAL SCIENCES

Bui, Minh, Linear phase orthogonal filter bank construction with applications to image and geometric approximations.

Cepeda-Rizo, Juan, Solid and fluid mechanics: Case studies in electronic packaging.

De Pass, Monica, Wavelet feature extraction of high-range resolution radar profiles using generalized Gaussian distributions for automated target recognition.

Fedorchuk, Katherine, Condensed history methods for Monte Carlo solutions of photon transport problems.

Longhini, Patrick, Nonlinear dynamics design and operation of advanced magnetic sensors.

Teng, Ying, Modeling and simulation of aeroserroelastic control with multiple control surfaces using μ-method.

Wong, Chao-Jen, The embedding method for simulation for enzyme kinetics and transfer in sessile hydrogel drop.

Stanford University (6)

STATISTICS

Han, Jiarui, Dynamic portfolio management.

Li, Jingyang, Contributions to Bayesian survival analysis.

Schwartzman, Armin, Random ellipsoids and false discovery rates: Statistics for diffusion tensor imaging data.

Xing, Haipeng, Change-point stochastic regression models with applications to econometric time series.

Zhang, Nancy, Change-point models and sequence alignments: Statistical problems of genomics.

Zou, Hui, Some perspectives of sparse statistical modeling.

University of California, Berkeley (33)

BIOSTATISTICS

Birkner, Merrill, Statistical hypothesis testing and application to biological data.

Machekano, Rhoderick, Statistical complications of infectious disease data: Machine learning, causal inference and multiple testing.

Sinisi, Sandra, Data-adaptive prediction with the deletion/substitution/addition algorithm.

Wang, Yan, Statistical methods for evaluating linkage disequilibrium using length of haplotype sharing.

MATHEMATICS

Borooah, Gautam, Clean conditions and incidence rings.

Diesl, Alexander, Classes of strongly clean rings.

Dorsey, Thomas, Cleanness and strong cleanness of rings of matrices.

Dugas, Alexander, Stable equivalences of finite dimensional algebras: Relative homology and lifting problems.

Eriksson, Nicholas, Algebraic combinatorics for computational biology.

Farjoun, Yossi, Nucleation, growth, and coarsening: A global view on aggregation kinetics.

Fertig, Ron, Almost rational torsion points on Abelian varieties.

Gracia-Saz, Alfonso C., The symbol of a function of a pseudodifferential operator.

Grigsby, Elisenda, Knot floer homology in cyclic branched covers.

Grossman, Pinhas, Intermediate subfactors with small index.

Hough, J. Ben, Asymptotic results for zeros of diffusing Gaussian analytic functions.

Huggins, Bonnie, Fields of moduli and fields of definition of curves.

Kim, Walter, Ramification points on the eigencurve and the two variable symmetric square p-adic L-function.

Lim, Chu-Wee, Decomposition of spaces of cusp forms over Q and variants of Partial Nim.

Menta, Rajan, Supergroupoids, double structures, and equivariant cohomology.

Mesyan, Zachary, On endomorphism rings of infinite direct sums of modules.

Nielsen, Pace, The exchange property for modules and rings.

Okunev, Pavel, Renormalization methods with applications to spin systems and finance.

Palamarchuk, Konstantin, The 6-vertex model in statistical mechanics.

Rinker, Mark, Height functions, maps to the integers, and the Whitehead graph of a finite presentation.

Woo, Alexander, Ideals of the polynomial ring generated by irreducible symmetric group representations and Ellingsrud-Strømme.

Xia, Jianlin, Fast direct solvers for structured linear systems of equations.

STATISTICS

Chen, Chao, Topics on random forests.

Guha, Apratim, Analysis of dependence structures of hybrid stochastic processing using mutual information.

Hammond, Alan, Two models of probability theory: Brownian fluctuations and a kinetic limit.

Krishnapur, Manjunath, Zeros of random analytic functions.

McAuliffe, Jon, Statistical methods for comparing genomes.

Pete, Gábor, Dependent percolation critical exponents, anchored isoperimetry and random walks.

Zhao, Peng, Regularization: Sparsity, structure and computation.

University of California, Davis (9)

MATHEMATICS

Cheng, Ching-hsiao, Navier-Stokes equations interacting with a nonlinear elastic shell.

Deka, Lipika, Fermionic formulas for unrestricted Kostka polynomials and superconformal characters.

Johnson, Jesse, Heegaard splittings, the curve complex and the points complex.

Larripa, Kamila, Mathematical models of the cytoskeleton.

McAllister, Tyrrell, Applications of polyhedral geometry to computational representation theory.

Safnuk, Bradley, Intersection theory on the moduli space of curves.

Smith, Noel, Boundary interpolating trigonometric transforms and applications.

Wilson, Robin, Knots with infinitely incompressible Seifert surfaces.

Zhao, Jucheng, Efficient approximations: Overcome boundary effects.

University of California, Los Angeles (34)

BIOSTATISTICS

Comulada, Warren, Two-part longitudinal multivariate models for sex, drugs, and teratology.

Gadallah, May Mokhtar Aly, Combing aggregated and individual level data to estimate individual level parameters variance, covariance, and slope coefficient.

Lemus, Hector, Bayesian state space modeling of heterogeneous multivariate longitudinal data.

Li, Ning, Joint analysis of longitudinal measurements and competing risk failure time data.

Siddique, Juned, Multiple imputation using an iterative hot-deck with distance based donor selection.

Wu, Tongtong, A partial linear semiparametric additive risks model for two-stage design survival studies.

Zhao, Yu, Additive risk regression for survival data from two-stage designs.

Zhou, Kefei, A unified approach to nonparametric comparisons of receiver operating characteristics curves for longitudinal and clustered data.

MATHEMATICS

Bueti, John, A bound for the (n, k) maximal function via incidence combinatorics.

Cai, Shuang, Algebraic connective K-theory: A simple definition and its consequences.

Feigon, Brooke, Periods and relative trace formulas for GL(2) in the local setting.

Folsom, Amanda, Modular units.

Gilette, Alan, Image inpainting using phase-field method.

He, Lin, Applications and generalizations of the iterative refinement method.

Khamsemanan, Nirattaya, Estimation of Nielsen numbers.

Kim, Yon Seo, Localization method as a universal approach to the Gromov-Witten theory.

Klein, Silvius, Spectral theory for discrete, quasi-periodic Schrödinger operators.

Le, Triet, A study of image segmentation and decomposition in a variational approach.

Lee, Catherine, The effect of smoothness and derivative conditions on the fixed point sets of smooth maps.

Leung, Shing-Yu, Applications of the level set method to geometrical optics, transmission tomography, image processing and crystal growth modeling.

Lieu, Linh, Contribution to problems in image restoration, decomposition, and segmentation by variational methods and PDEs.

Ouellette, Keith, On the Fourier inversion formula for reductive adèlic groups.

Park, Frederick, Total variation and duality for blind image.

Peterson, Jesse, 1-cohomology and rigidity in Π_1 factors.

Schubert, Claus, New u-invariants of quadratic forms and function fields of good forms of height two.

Sze, Nang Keung, Multilevel optimization for VLSI circuit placement.

Thiyanaratnam, Pradeep, Modeling and simulation of electrodisposition in 2 and 3 dimensions.

Visan, Monica, The defocusing energy-critical nonlinear Schrödinger equation in dimensions five and higher.

Xu, Jinjun, Iterative regularization and nonlinear inverse scale space methods in image restoration—interactive regularization and nonlinear inverse scale space methods in image restoration.

STATISTICS

He, Yan, Missing data imputation for tree-based models.

Huang, Wehua, Methods to extract rare events.

Maciuca, Romeo, MCMC analysis: First hitting times, visiting scheme, and auxiliary variables.

Veen, Alejandro, Some methods of assessing and estimating point processes models for earthquake occurrences.

Zheng, Ming, ChIP-chip: Data, model and analysis.

University of California, Riverside (3)

MATHEMATICS

Bartels, Tobias, Higher gauge theory, 2-bundles.

Hernandez, Lisa, On the girth of a knot.

Pearse, Erin, Complex dimensions of self-similar systems.

University of California, San Diego (13)

MATHEMATICS

Cecil, Mathew S., The Taylor map on complex path groups.

Emmons, Caleb J., Higher order integral Stark-type conjectures.

Fenwick, Jennifer E., A survey of meshing algorithms and a multi-purpose mesh generator.

Fleming, Thomas R., Generalized link homotopy invariants.

Horton, Matthew D., Ihara zeta functions of irregular graphs.

Kang, Weining, An invariance principle for semimartingale reflecting Brownian motions (SRBMs) in domains with piecewise smooth boundaries.

Lee, Jason, Topics in combinatorial game theory: Partizan versions of Nim, the hypercube description and results on computation in the field of numbers.

Lim, Poon Chuan Adrian, Path integrals on a compact manifold with non-negative curvature.

Miceli, Brian, A rook theory model for product formulas and poly-Stirling numbers.

Newland, Derek, Kernels in the Selberg trace formula on $\mathbb{T}_k$ and distributions of the zeroes of the Ihara-zeta function.

Pendergrass, Cayley, Just-infinite algebras and an extension of a theorem of Herstein.

Winkelmann, Beate M., Finite dimensional optimization methods and their application to optimal control with PDE constraints.

Wu, Lei, Random inscribed polytopes.

University of California, Santa Barbara (13)

MATHEMATICS

Ham, Ji-Young, The minimal dilatations of 4 and 5 braids.

Lichtenstein, Eric, Divisors for elliptic curves satisfying Zagier's conjecture.

Pavone, Christopher, The spectral scale of a self-adjoint operator in a semifinite von Neumann algebra.

Roybal, Roger, A reproducing kernel condition for indeterminacy in the multidimensional moment problem.

Sittinger, Brian, Recurrence formulae for the coefficients of modular forms and functions.

Tomova, Madlena, Compressing thin spheres in the complement of a link.

Wylie, William, On the fundamental group of noncompact manifolds with nonnegative Ricci curvature.

STATISTICS AND APPLIED PROBABILITY

Chernobai, Anna, Contributions to modeling of operational risk in banks.

Frame, Samuel, Some contributions to semi-supervised learning.

Grebeck, Michael, Application of stochastic programming and stable distributions to asset liability management.

Lei, Xiaofang, Bayes nets: A generalized variable elimination algorithm and applications to classification.

Tong, Tiejun, On variances estimation with application to microarray data analysis.

Yuan, Jiacheng, Bootstrap resampling in wavelet analysis and statistical methods in ecological research.

University of California, Santa Cruz (5)

MATHEMATICS

Bonini, Vincent, Negatively small perturbations of the Laplacian on asymptotically flat manifolds.

Glesser, Adam, Refinements of Dade's projective conjecture.

Jordan, Leif, Classification of irreducible vi modules for a negative definite rank one even lattice L.

Niche, Cesar, On the topological entropy and periodic orbits of optical and magnetic flows.

Rosen, Oren, Sturm Liouville extensions: Applications in plate vibration.

University of Southern California (7)

MATHEMATICS

Cetin, Coskun, Backward stochastic differential equations with quadratic growth and their applications.

Dong, Huamei, Critical region for droplet formation/dissolution.

Li, Ming, Statistical models of sequencing error and algorithms of polymorphism detection.

Liu, Xiaobo, The quantum Teichmüller space as a noncommutative algebraic object.

Shamam, Asher, Modeling and deconvolution of alcohol transport through human skin employing a new fully-discrete parameters estimation framework for parabolic and hyperbolic distributed parameter systems.

Torres, Juan, Space-time decay of solutions of the Navier-Stokes equations.

Yang, Yi, Computational genome analysis by alignment.

COLORADO

Colorado School of Mines (3)

MATHEMATICS AND COMPUTER SCIENCE

Al-Ramouni, Suad, Efficient algorithms for association rules from transactional databases.

Gao, Kun, Attribute based modeling: An interpolation approach to design.

Idwan, Sahar, Algorithms for discrete geometric and graph theoretic pursuit problems.

Colorado State University (6)

MATHEMATICS

Eastman, Sean, Analysis and application of the nonlinear power method.

Hacioglu, Ilhan, The integral structure of Hecke algebras for finite generalized polygons.

Neckels, David, Variational methods for uncertainty quantification.

STATISTICS

Abd El-Fattah, Ehab, Saddlepoint approximations for linear rank models.

Abdel Karim, Amany, Applications of generalized inference.

Storlie, Curtis, Tracking of multiple merging and splitting targets with application to convective systems.

University of Colorado at Boulder (9)

APPLIED MATHEMATICS

Brannick, James, Adaptive algebraic multi grid coarsening strategies.

Cooley, Daniel, Statistical analysis of extremes motived by weather and climate studies: Applied and theoretical advances.

Hoefer, Mark, Dispersive shock waves in Bose-Einstein condensates and nonlinear nano-oscillators in ferromagnetic thin films.

Lee, Eunjung, FOSLL* for eddy current problems with three-dimensional edge singularities.

Suwannajan, Pakinee, Evaluating the performance of latent semantic indexing.

Wysham, Derin, Reducibility, manifolds, and bifurcations of invariant tori in dynamical systems.

MATHEMATICS

Chambers, Amy, Certain subalgebras of the tensor product of graph algebras.

Massman, John, Applications of algebraic geometry to error-correcting codes.

Smith, Becker Sidney, The Hilbert e-operator and its significance for metamathematics.

University of Colorado at Denver (3)

MATHEMATICS

JuJunanashvili, Abram, Angles between infinite-dimensional subspaces.

Rostermundt, Robert, A description of all elation groups of the Hermitian surface in 3-dimensional projective space over a finite field of characteristic 2.

Weinstein, Tessa, Three-phase hybrid mixture theory for swelling drug delivery systems.

University of Colorado at Denver and Health Sciences Center (1)

PREVENTIVE MEDICINE AND BIOMETRICS

Bjork, Kathe, Robust identification of differential gene expression and discrimination.

University of Northern Colorado (3)

SCHOOL OF MATHEMATICAL SCIENCES

Banks, Clare, Preservice teachers' personal epistemological beliefs in relation to their beliefs in the National Council of Teachers of Mathematics' principles and standards for school mathematics.

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

Tsay, David, Pedagogical content knowledge in prospective elementary teachers: The schema of multiplication.

CONNECTICUT

University of Connecticut, Storrs (5)

MATHEMATICS

Catral, Minerva, Group inverses and mean first passage matrices in finite ergodic Markov chains.

O'Neill, Krista, High frequency response to low frequency forcing in a non-linear mechanical model.

Speicher, Regina, Numerical solutions to an Allen-Chan type equation.

STATISTICS

Song, Seongho, Hierarchical Bayesian analysis of genetic diversity in geographically structured populations.

Zhang, Zhenkui, Variable window scan statistics.

Wesleyan University (1)

MATHEMATICS AND COMPUTER SCIENCE

Cane, Ilirjan, Shellability properties on planar graded posets and higher order complexes.

Yale University (7)

MATHEMATICS

Armstrong, John, Extensions of classical knot invariants to categories of tangles.

Duncan, John F., Vertex operators, and three sporadic groups.

Lim, Seonhee, Enumeration of lattices and entropy rigidity of group actions on trees and buildings.

Mallahi-Karai, Keivan, Relative growth and Kazhdan property for arithmetic groups.

Poznansky, Tal, Existence of simultaneous Ping-Pong partners in linear groups.

Salehi-Golsefidy, Alireza, Lattices of minimum covolume in Chevalley groups over positive characteristic local fields.

Szlam, Arthur D., Non-stationary analysis on data sets and applications.

DELAWARE

University of Delaware (2)

MATHEMATICAL SCIENCE

Platte, Radrigo, Accuracy and stability of global radial basis function methods for the numerical solution of partial differential equations.

Sun, Jiguang, Numerical analysis of nonlinear ferromagnetic materials.

DISTRICT OF COLUMBIA

American University (3)

MATHEMATICS AND STATISTICS

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

Gochenaur, Deborah, African Americans and STEM: An examination of one intervention program.

Pascal, Matthew, No Child Left Behind in the mathematics classroom: A regional assessment of the impacts that the No Child Left Behind Act of 2001 has had on the mathematics classroom learning environment.

George Washington University (3)

MATHEMATICS

Helme-Guizon, Laure, A categorification for the chromatic polynomial.

STATISTICS

Gartvig, Konstantin, Asset pricing under parameter uncertainty.

Hui, Terrence, Bootstrap and likelihood based inference for ranked set samples.

Howard University (3)

MATHEMATICS

Mohlala, Molobe, Enriched quantum Yang-Baxter geometry, quantum geometry.

Moshesh, Irene, Image partition regularity of affine transformations.

Rahman, Abdul, On the construction and cohomology of a self-dual perverse sheaf on simple stratified spaces motivated by string theory.

FLORIDA

Florida Atlantic University (2)

MATHEMATICAL SCIENCES

Humphreys, Katherine, Enumeration of lattice paths using finite operator calculus.

Mahalanobis, Ayan, Diffie-Hellman key exchange protocol, its generalization and nilpotent groups.

Florida Institute of Technology (5)

MATHEMATICAL SCIENCES

Liew, Agatha, Stochastic analysis of a multivariable random walk with applications to finance.

Lindsay, Rita, An analysis of the effects of a computer enhanced curriculum and learning style on student achievement in college algebra at a Florida community college.

Samanta, Tathagata, Comparing pseudo- and quasi-random number generators in multivariable integration and traveling salesman problem.

Shaikh, Shoaib, Design optimization using statistical techniques.

Smith, Timothy, On periodic solutions of nonlinear hyperbolic equations of the fourth order.

Florida State University (11)

MATHEMATICS

Akella, Santha, Deterministic and stochastic aspects of data assimilation.

Croicu, Ana-Maria, Single and multiple-objective stochastic programming with applications to aerodynamics.

Cui, Zhenlu, Rheology and mesoscale morphology of flows of cholesteric and nematic liquid crystal polymers.

Ganesan, Anand, Two part thesis: 1. A modified k-ϵ turbulence model of high speed jets at elevated temperatures. 2. Modeling and a computational study of spliced acoustic liners.

Goforth, Jacqueline, A description and analysis of a two variable version of the NTRU cryto system.

Hu, Wenbo, Calibration of generalized hyperbolic distributions using the EM algorithm, with applications in risk management, portfolio optimization, and portfolio credit risk.

Kadioglu, Samet, All speed multi-phase flow solvers.

Srinivasan, Parthasarathy, Applications of representation theory and higher-order perturbation theory in NMR.

STATISTICS

Franks, Billy, Investigating the categories for blood pressure for risk assessment of death due to coronary heart disease.

Kaziska, David, Statistics models on human shapes with applications to Bayesian image segmentation and gait recognition.

Munshi, Mahtab, Impact of missing data on building prognostic models across studies.

University of Central Florida (4)

MATHEMATICS

Bradshaw, David, Classification of high-dimensional vectors based on matrix-variate distributions.

Heard, Astrid, Applications of statistical methods for risk and reliability.

Qi, Limin, Phase synchronization in three-dimensional lattices and globally coupled populations of nonidentical Rossler oscillators.

Singh, Neeta, Epidemiological models for mutating pathogen with temporary immunity.

University of Florida (15)

MATHEMATICS

An, Jung-ha, Various methods in shape analysis and image segmentation and registration.

Bhat, Yermal Sujeet, A multiscale analysis of PDE modeling voltage potential.

Jakimovik, Slagjana, On the classification of inverse limit spaces of tent maps.

Kozinski, Jason, Abstract bilinear integration and applications.

Melikhov, Sergey, Geometry of link invariants.

Rojas-Rebolledo, Diego, Approximations to the strength of OD^A-determinacy and applying determinacy to porosity.

Sadykov, Rustam, Singularities of smooth maps.

Thiruvenkadam, Sheshadri, Partial differential equations (PDE) and variational methods applied to medical image analysis.

Tweddle, J. Christopher, Minimization of linear growh functionals of measure.

STATISTICS

Capanu, Marinela, Tests of misspecification for parametric models.

Chakraborty, Sounak, Bayesian machine learning.

Cui, Yuehua, Statistical functional mapping for genetic control of programmed cell death.

Min, Lin, Mathematical and statistical methods for identifying DNA sequence variants that encode drug response.

Rumcheva, Pavlina, Projected multivariate linear models for directional data.

Zhao, Wei, Statistical modeling for functional mapping of longitudinal and multiple longitudinal traits: Structured ante-dependance model and wavelet dimensionality reduction.

University of Miami (2)

MATHEMATICS

Anthappan, Paul, On trigonometric interpolation.

Solis, Didier, Global properties of asymptotically de Sitter and anti de Sitter spacetimes.

University of South Florida (4)

MATHEMATICS

Fall, Djiby, Longtime dynamics of hyperbolic evolutionary equations in unbounded domains and lattice systems.

Kephart, David, Topology, morphism, and randomness on the space of formal languages.

Rajaram, Lakshminarayan, Statistical models for environmental and life sciences.

Youmbi, Norbert, Contributions to harmonic analysis and probability theory on semihypergroups.

GEORGIA

Clark Atlanta University (1)

MATHEMATICS

Torain, David S., II, An analytical approach to the bio-economic dynamics of a fishery which includes simultaneous harvesting of other species.

Emory University (7)

BIOSTATISTICS

Hickson, DeMarc, Multilevel (hierarchical) analysis of the human immunodeficiency virus and high risk sexual behavior: Assessing model fit with the DIC generalized coefficient of determination.

Leong, Traci, First- and second-order properties of spatial point processes in biostatistics.

Lin, Carol, Evaluating and optimizing performance of diagnostic systems with multiple tests.

Patel, Rajan, Determining connectivity of the human brain with functional neuroimaging data.

Tassone, Eric, Small area estimation of health disparity via Bayesian hierarchical models.

MATHEMATICS AND COMPUTER SCIENCE

Crane, Brian, Forbidden subgraphs and (k, m)-pancyclic graphs.

Ferrara, Michael, The degree stripping method for potentially H-graphic sequences.

Georgia Institute of Technology (7)

SCHOOL OF MATHEMATICS

Chen, Jian, Bifurcations normal forms and their applications.

Gameiro, Marcio, Topological analysis of patterns.

Hegde, Rajneesh, New tools and results in graph structure theory.

Hohenegger, Christel, Small scale stochastic dynamics for particle image velocimetry applications.

Moeller, Todd K., Conley-Morse chain maps.

Norine, Serguei, Matching structure and Pfaffian orientations of graphs.

Wollen, Paul, Extremal functions for graph linkages and rooted minors.

University of Georgia (10)

MATHEMATICS

Baramidze, Victoria, Spherical splines for scattered data fitting.

Chang, Sungkon, On the arithmetic of twists of super elliptic curves.

Nam, Kyunglim, Tight wavelet frame construction and its application for image processing.

Pemy, Moustapha, Regime switching market models and applications.

STATISTICS

Bandyopadhyay, Dipankar, Novel nonparametric methods for event time data.

Habtzghi, Desale, Maximum likelihood based estimation of hazard function under shape restrictions and related statistical inference.

Shen, Jing, Robust estimation and inference in finite mixtures of generalized linear models.

Woo, Mi-Ja, Robust estimation in mixture models and small area estimation using cross-sectional time series models.

Zhao, Ying, Some stochastic shapes applications in time series and Markov chains.

Zheng, Haitao, Inference for time series models for count data.

HAWAII

University of Hawaii (1)

MATHEMATICS

Kalk, Jonathan, Sparse ordinary graphs.

IDAHO

Idaho State University (2)

MATHEMATICS

Earl, Katheryne, Remediation in American colleges: Its history and future.

Velásquez, Maria Elena, Wavelets: Theory and applications.

University of Idaho (3)

MATHEMATICS

Guan, Yongtao, Algorithms and Monte Carlo methods in computational biology.

Ponciano Castellanos, José Miguel, On the use of stochastic population models in microbial ecology.

Sprano, Timothy, Prime ideals of the infinite product ring of p-adic integers.

ILLINOIS

Illinois Institute of Technology (1)

APPLIED MATHEMATICS

Bongolan-Walsh, Vena Pearl, Nonautonomous and stochastic dynamics of oceanic gravity currents.

Illinois State University (2)

MATHEMATICS

Brown, Susan, The trigonometric connection: Students' understanding of sine and cosine.

Nenduradu, Rajeev, Characterizing preservice teachers' use of representations in solving algebraic problems involving exponential relationships.

Northern Illinois University (3)

MATHEMATICAL SCIENCES

Apel, Geoffrey, Quintuple product identities.

Kong, Ling Ju, Non-linear boundary problems of ordinary differential equations.

Peng, Wujian, On the Krylov subspace solutions of matrix equations in control theory.

Northwestern University (11)

ENGINEERING SCIENCE AND APPLIED MATHEMATICS

Catlla, Anne, Pattern formation in impulsively forced Faraday waves.

Singh, Gogi, Mathematical modeling of self-organized nano-scale porous structures in anodic aluminum oxide.

Spiller, Elaine, Computational studies of rate events in optical transmission systems.

MATHEMATICS

Carter, Andrea, The Brauer group of Del Pezzo surfaces.

Heller, Jeremiah, Semi-topological cobordism for complex varieties.

Joukhovitski, Valentina, Topological modular forms and p^n-level structures at the prime p.

McCarthy, Anne, Rigidity of solvable group actions.

Pearson, Paul, The $mod\, 2$ homology of the connective spectrum of topological modular forms.

Salomone, Matthew, Quasi-periodic continuation along a continuous symmetry.

Youngren, Drew, Microlocal analysis of the anharmonic oscillator with large potential.

Zhang, Hua, Symplectic partially hyperbolic diffeomorphisms.

Southern Illinois University, Carbondale (1)

MATHEMATICS

Huang, Zhongming, Multinomial change point problems.

University of Chicago (24)

MATHEMATICS

Athreya, Jayadev, Quantitative recurrence of Teichmüller geodesic flow.

Copeland, David, A definition of the global Weyl group and a simple example.

D'Costa, Sameer, Trace of Frobenius for an ordinary elliptic wave.

Gurshi, Michael, An algebraic theory of tricategories.

Haynes, Richard, Results concerning the G-signature.

Iyer, Gautam, A stochastic Lagrangian formulation of the incompressible Navier-Stokes and related transport equations.

Johns, Joseph, Complexification of Morse functions and the directed Fukoya category.

Khare, Apoorva, Category G over the symplectic oscillator algebra.

Melnick, Karin, Compact Lorentz manifolds with local symmetry.

Mulnix, James, L^p estimates for parabolic oblique derivative problems.

Park, Jinhyun, Infinitesimal and cyclic aspects of motives.

Pettet, Alexandra, Cohomology of some subgroups of the automorphism group of the free group.

Ramadoss, Ajay, On the nonexistence of certain morphisms from Grassmannian to Grassmannian in characteristic O.

Sen, Anindya, Investigating the limit order book.

Thomas, Joaquin Teruji, The Maslov index as a quadratic space.

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INDIANA

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University of Notre Dame (4)

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Iowa State University (11)

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McAtee, Jenelle, $C2$ smooth knots of constant curvature.

Picioroaga, Gabriel, Amenability properties of the von Neumann algebras associated with generalized Thompson groups.

Song, Myung-sin, Wavelet image compression.

KANSAS

Kansas State University (6)

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Li, Yiqiang, Affine canonical bases.

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KENTUCKY

University of Kentucky (3)

MATHEMATICS

Money, James, Variational methods for the image deblurring and discretized Picard's method.

Nedeva, Todorka, Rings of power series in the binomial polynomials.

Quillen, Patrick, Generalizations of an inverse free Krybu subspace method for the symmetric generalized eigenvalue problem.

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Louisiana State University (11)

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Louisiana Technology University (4)

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Tulane University (3)

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Morgan, Leslie Heard, An empirical study of the power and accuracy of three tests for specific clustering.

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Manna, Dante, An extension of Landen transformations.

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University of Louisiana at Lafayette (5)

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Dean, William M., Ray tracing by linear interval estimations.

Gorton, Christine, Generalized primary rings.

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Johns Hopkins University (10)

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Boston University (5)

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Li, Jiang, Modeling of silent events and evaluation of biomarkers in a prospective study with scheduled follow-up.

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Chu, Kevin, Asymptotic analysis of extreme electrochemical transport.

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University of Massachusetts, Amherst (2)

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Worcester Polytechnic Institute (1)

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MICHIGAN

Central Michigan University (2)

MATHEMATICS

Al-Sharawi, Ziyad, Periodic discrete dynamical systems.

Pararai, Mavis, Measurement errors in generalized Poisson regression model.

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Dai, Zhewei, Local regularization for the autoconvolution problem.

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Xia, Zhengzhi, Some contributions to multiple comparison methods for longitudinal data and general linear mixed effects models.

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Andrei, Adin-Cristian, Nonparametric and semiparametric censored survival analysis of correlated times to event and their sequelae.

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Chivoret, Sebastien, Properties of multiple stochastic integrals with respect to fractional Brownian motion and applications to nonlinear filtering.

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Fiore, Thomas, Pseudo limits, bi-adjoints, and pseudo algebras: Categorical foundations of conformal field theory.

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Hering, Milena, Syzygies of toric varieties.

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Lawrence, Earl, Flexicast network delay tomography.

Wang, Xiao, Nonparametric inference with applications to dark matter estimation in astronomy and degradation modeling in reliability.

Wayne State University (1)

MATHEMATICS

Song, Qingshuo, Numerical methods for control and games of regime-switching diffusion systems: Algorithms, analysis, and computations.

Western Michigan University (3)

MATHEMATICS

Escuadro, Henry, Detectable colorings of graphs.

Fox, Joseph, Nilpotent orbits on infinitesimal symmetric spaces.

Stockero, Shari, The effect of using video cases of mathematics teaching on preservice teachers' development of a reflective stance towards teaching.

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University of Minnesota-Twin Cities (25)

DIVISION OF BIOSTATISTICS, SCHOOL OF PUBLIC HEALTH

Li, Bingbing, Sample size calculation in survival trials accounting for time dependent dynamics of noncompliance and risk.

Liu, Xuan, Latent variable models for multivariate spatial data.

Lu, Haolan, Measuring the complexity of generalized linear hierarchical models and Bayesian areal wombling for boundary analysis.

Reich, Brian, Sample size calculations with correlated binary data and multiple treatments.

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Anand, Akash, An efficient high-order numerical algorithm for scattering by 3-dimensional "thin structures".

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Chen, Min-Hung, High order Runge-Kutta discontinuous Galerkin methods for computational electromagnetics.

Dong, Hongjie, On some problems related to the regularity theory for second-order elliptic-parabolic equations and their numerical approximations.

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Ecevit, Fatih, Integral equation formulations of acoustic and electromagnetic scattering problems: High-frequency asymptotic expansion and convergence of multiple scattering interations.

Hoft, Thomas, An inverse problem in nondestructive evaluation of spotwelds.

Kim, Dayoon, Partial differential equations in Sobolev spaces with or without weights.

Ponomarenko, Mariya, Error estimates and adaptivity in approximation of functions by artificial neural networks.

Rogness, Jonathan, Homological and homotopical algebra of exact couples.

Turc, Catalin, High-order integral equation methods for high-frequency rough surface scattering applications.

Weng, Pangyen, On Sobolev spaces of divergence-free vector fields and their applications.

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Bennie, Barbara, Optimal bidding strategies for a non-durable consumer good with cyclic production.

Gregas, Matthew, A semi-parametric approach to intensity curve estimation with applications to neuroscience.

Huang, Yu-Min, Hypotheses with multiple linear inequality constraints.

Sheng, Jun, Methods for comparing two crossing hazard functions.

Sun, Jingran, Image segmentation for cDNA microarray data based on local polynomial kernel smoothing.

Wang, Junhui, Topics in large margin supervised and semi-supervised learning.

Wang, Lifeng, On L 1-norm multi-class support vector machines: Methodology, theory and applications.

Yoo, Jae Keun, Optimal sufficient dimension reduction for the multivariate conditional mean in multivariate regression.

MISSISSIPPI

Mississippi State University (1)

MATHEMATICS AND STATISTICS

Wattanataweekul, Hathaikarn, Convex analysis and flows in infinite networks.

University of Mississippi (5)

MATHEMATICS

Anderson, Joe, Reconnected binary matroids and graphs.

Cotwright, Carla, Clones and minors in matroids.

Sanford, Alice, Cycle spectra, automorphic uniqueness, and isomorphism.

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MISSOURI

University of Missouri-Columbia (13)

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Arutyunyants, Georgiy, Combinatorial methods in harmonic analysis.

Brown, James (Ryan), Complex and almost-complex structures on six dimensional manifolds.

Diestel, Geoffrey, Bilinear Littlewood-Paley theory and square function estimates.

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Nguyen, Phuc, Potential theory and harmonic analysis methods for quasilinear and Hessian equations.

Sansing, Christopher, Directional time-frequency analysis with applications.

Yaskin, Vladyslav, Applications of the Fourier transform to convex geometry.

Yaskina, Maryna, Topics in functional analysis and convex geometry.

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Duty, Paul, Improving the delta method for nonlinear functions.

Park, Do Hwan, Semiparametric and nonparametric methods for the analysis of longitudinal data.

Sheng, Junfeng, Diagnosis, selection, and multiple comparisons in the mixed modeling framework.

Zhang, Song, Bayesian hierarchical models and applications in cancer analysis.

University of Missouri-Rolla (2)

MATHEMATICS AND STATISTICS

Rueck, Florian, Bootstrap prediction intervals for multivariate time series.

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University of Missouri-St. Louis (2)

MATHEMATICS AND COMPUTER SCIENCE

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Wurdack, Karen, Hierarchical Kalman filtering.

Washington University (9)

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Day, Theodore, Applications of operations research to medical informatics and systems.

Du, Xiuxia, Detection of visual input and control mechanism in the visual cortex of turtles.

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Traub, Cynthia, Topological effects related to minimum weight Steiner triangulations.

Zeng, Zemin, Set theoretic complete intersections and torsion cycles.

MONTANA

Montana State University-Bozeman (1)

MATHEMATICAL SCIENCES

Hasenbank, Jon, The effects of a framework for procedural understanding on college algebra students' procedural skill and understanding.

University of Montana - Missoula (2)

MATHEMATICAL SCIENCES

Luttman, Aaron, A three-dimensional variational approach to video segmentation.

Whitmire, Jane, The use of computer manipulatives in building integrated concrete understandings in secondary mathematics education.

NEBRASKA

University of Nebraska-Lincoln (4)

MATHEMATICS

Bartley, Katherine, Decoding algorithms for algebraic geometric codes over rings.

James, Justin, Some decision problems in group theory.

Langdon, Jennifer, Asymptotic behavior of linear dynamic equations on a time scale.

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Hooks, Tisha, Design and analysis of experiments in the presence of spatial correlation.

NEW HAMPSHIRE

Dartmouth College (1)

MATHEMATICS

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University of New Hampshire (1)

MATHEMATICS AND STATISTICS

Montiel, Mariana, The process of integration and the concept of integral: How does success with applications and comprehension of underlying notions such as accumulation relate to students' mathematical ability.

NEW JERSEY

New Jersey Institute of Technology (3)

MATHEMATICAL SCIENCES

Lahiri, Soumi, Linear and log-linear models based on generalized inverse sampling scheme.

Tseluiko, Dimitri, Mathematical problems arising in interfacial electrohydrodynamics.

Zorych, Ivan, A Bayesian approach to wireless location problems.

Princeton University (5)

MATHEMATICS

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Ciperiani, Mirela, Solvable points on genus one curves.

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Rutgers University, New Brunswick (11)

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Enciso, Germán, Monotone input/output systems and biological applications.

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Jin, Qinian, Curvature prescribing problems in hyperbolic space and conformal geometry.

Kong, Liang, A mathematical study of open-closed conformal field theories.

Mikula, Richard, The Weingarten curvature problem: Prescribing Gauss-Kronecker curvature on group invariant convex hypersurfaces.

Nacin, David, Structural properties of algebras arising from pseudoroots.

Radomirovic, Sasa, Cusp forms over function fields and modular symbols.

Vatter, Vincent, The enumeration and structure of permutation classes.

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Stevens Institute of Technology (3)

MATHEMATICAL SCIENCES

Cho, Hong-Ray, An introduction to counter groups.

Rekeda, Ludmyla, Statistical tests for stochastic dominance.

Von Dohlen, Paul, Novel approaches to particle-tracking simulations for time dependent velocity fields.

NEW MEXICO

New Mexico State University, Las Cruces (5)

MATHEMATICAL SCIENCES

Li, Baokun, Estimation on random set data and skew normal distribution.

Moyo, Lloyd, Codomains for the Cauchy-Riemann operator, Laplace operator and the product Laplace operator in the context of the S-convolution.

Obiedat, Hamed, Topological characterizations of the Schwartz space and the Beurling-Bjorck space.

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University of New Mexico (3)

MATHEMATICS AND STATISTICS

Marquez-Lago, Tatiana, Numerical estimation of progesterone transcription in the EGFR pathway.

Vlaicu, Irina, Weak turbulence theory for coasting beams with Schottky noise.

Xu, Ling, Bayesian methods for computing populations with multimodal distributions.

NEW YORK

City University of New York, Graduate Center (8)

MATHEMATICS

Allen, David, On the homotopy of toric spaces with applications to the homotopy groups of certain manifolds.

Bocchi, Timothy, Prescribed mean curvature graphs in hyperbolic space.

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Clarkson University (1)

MATHEMATICS AND COMPUTER SCIENCE

Vasileva, Irina, Force inversion in floating plate dynamics.

Columbia University (21)

BIOSTATISTICS

Chen, Mei-Yin, Two stage stepwise procedures for dose finding in clinical trials with a biological endpoint.

Tian, Hong, Variance estimation of the cross validation estimator of the generalization error.

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Phan, Jeffrey, Order properties of monomial ideals and their free resolutions.

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Kardaras, Konstantinos, The numeraire portfolio and arbitrage in semimartingale models of financial markets.

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Liang, Yu, Joint modeling and analysis of longitudinal observations and observation times.

Pal, Soumik, On capital requirements and optimal strategies to achieve acceptability.

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CENTER FOR APPLIED MATHEMATICS

Blais, Marcel, Liquidity and modelling the stochastic supply curve for a stock price.

Boyle, Katharyn, Risk minimization hedging methods using options.

Carey, Varis, A posteriori error estimation for the finite element method via local averaging.

Franco, Maria Mercedes, Existence and regularity of minimizers for a one-dimensional elasticity problem without convexity.

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Morris, Steve, Four- and six-dimensional nilmanifolds and symplectic forms.

Roeder, Roland, Topology for the basins of attraction of Newton's method in two complex variables.

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Courant Institute, New York University (11)

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Walker, Ryan, A two-dimensional coupled model for ice shelf-ocean interaction.

Rensselaer Polytechnic Institute (11)

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Banks, Jeffrey, A high resolution Godurov method for high-speed mutli-material flows.

Castronovo, Emilio, A comparative study of Lagrangian stochastic models for oceanic transport.

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Farwell, Kristin, Gomory cutting planes using exact arithmetic.

Glackin, James, Solving bi-level linear programs using multiple objective linear programming.

Koch, Gretchen, Simulating the min system in Escherichia coli: Two models of oscillating polymer chains.

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State University of New York, Albany (1)

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McCollum, Joseph, Random walks on the dihedral group and abelian groups.

State University of New York, Binghamton (4)

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Florez, Rigoberto, Four studies in the geometry of biased graphs.

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State University of New York, Buffalo (2)

MATHEMATICS

Cheon, Younhwan, Some enumeration problems for cryptographic Boolean functions.

Mohammed-Awel, Jemal Said, Deterministic and stochastic models of development of resistance to genetically modified pesticidal crops.

State University of New York, Stony Brook (32)

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Ahn, Kwangmi, Quantifying the percent increase in minimum sample size of linear trend tests resulting from SNP genotyping errors in genetic association studies.

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Genethliou, Dora, Statistical approaches to electric load forecasting.

Han, Guowen, Analysis of multiscale molecular dynamics algorithms for simulating biomolecules.

Heller, Jason, Automatic recognition of harmonic bird sounds.

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Cabrera Ocanas, Carlos, Towards classification of laminations associated to quadratic polynomials.

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Van Coevering, Craig, Toric surfaces and Sasakian-Einstein 5-manifolds.

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Syracuse University (2)

MATHEMATICS

Gao, Yunchuan, Multi-category support vector machines.

Gogus, Nihat, Continuity of plurisubharmonic and Perron-Bremermann envelopes.

University of Rochester (2)

MATHEMATICS

Chen, Rui, Heat equation with white or fractional noise potentials.

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NORTH CAROLINA

Duke University (10)

INSTITUTE OF STATISTICS AND DECISION SCIENCE

Carvalho, Carlos, Structure and sparsity in high-dimensional multivariate analysis.

Duan, Jun (Jason), Spatio-temporal modeling using nonparametric and stochastic differential equation approaches.

Hans, Christopher, Regression model search and uncertainty with many variables.

Kohnen, Christine, Using multiply imputed, synthetic data to facilitate data sharing.

Liao, Ming, Bayesian models and machine learning with gene expression and analysis applications.

Tu, Chong, Bayesian nonparametric modeling using Levy process priors with applications for function estimation, time series modeling and spatio-temporal modeling.

Xia, Gangqiang, Large sample size issues in spatial statistics.

MATHEMATICS

Anderson, David, Stochastic perturbations of biochemical reaction systems.

Deering, Ryan, Fine scale analysis of speech using empirical mode decomposition: Insight and applications.

Laurent, Thomas, New phenomena in non-local partial differential equations.

North Carolina State University (29)

MATHEMATICS

Adams, Brian, Non-parametric parameter estimation and clinical data fitting with a model of HIV infection.

Cabbage, Brian, The Stone-Čech compactification of the plane.

Cicco, Tracey, Algorithms for computing restricted root systems and Weyl groups.

Gao, Jining, The algebraic structure of BRST operators and their applications.

Glotov, Petr, Time reversal of electromagnetic waves in randomly layered media.

Hood, Jeffrey, Molecular-based models for viscoelasticity of polymers.

Ingram, Frank, III, On the wreath product of Schur functions.

Lasater, Matthew, Numerical methods for the Wigner-Poisson equations.

May, John, Approximate factorization of polynomials in many variables and other problems in approximate algebra via singular value decomposition methods.

Ray, Robert, Quantum symmetric spaces and quantum symplectic invariants.

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Zhou, Xianwen, Application of perturbation methods to modeling correlated defaults in financial markets.

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Gao, Guozhi, Semiparametric estimators for the regression coefficients in the linear transformation competing risks models with missing cause of failure.

Goyal, Lovely, Statistical inference for non-linear mixed effects models involving ordinary differential equations.

Guo, Xiang, Statistical analysis in two stage randomization designs in clinical trials.

Han, Sanggohn, Inference regarding multiple structural changes in linear models estimated via two stage least squares.

Heo, Tae-Young, Spatial modeling for capturing the effects of point sources.

Hepler, Amanda, Improving forensic identification using Bayesian networks and relatedness estimation: Allowing for population substructure.

Jiang, Honghua, Age-dependent tag return models for estimating fishing mortality, natural mortality and selectivity.

Kang, Changku, Regression via clustering using Dirichlet mixtures.

Lee, Hyeyoung, Reparametrized dynamic space-time models and spatial model selection.

Liu, Feng, Elliptical copulate with dynamic conditional correlation.

Park, Jungwook, Statistical inference for correlated data based on censored observations.

Park, Mansik, Symmetry and separability in spatial-temporal processes.

Song, Hae-Ryoung, Associations between Gaussian Markov random fields and Gaussian geostatistical models with an application to model the impact of air pollution on human health.

Wang, Qiong, Robust estimation via measurement error modeling.

Webster, Raymond, Spatial modeling of detection and abundance from count surveys of animal populations.

University of North Carolina at Chapel Hill (20)

BIOSTATISTICS

Bigelow, Jamie, Semiparametric Bayesian methods for hierarchical functional data.

Chen, Qingxia, Theory and inference for parametric and semiparametric methods in missing data problems.

Chi, Yueh Yun, Bayesian methods for longitudinal and survival data with application to clinical trials and genomics.

Diao, Guoqing, Semiparametric models for mapping quantitative trait loci in experimental design and human pedigrees.

Kistner, Emily, A method for using nuclear families to test linkage and association, maternal effects, and parent-of-origin effects between marker and quantitative trait.

Pennell, Michael, Bayesian semiparametric methods for longitudinal, multivariate and survival data.

Sterrett, Andrew, Hidden Markov models and sequential imputation to infer the location of tumor loci.

MATHEMATICS

Bailey, Sarah E., Dynamical properties of some non-stationary non-simple Bratteli-Vershik systems.

Boysal, Arzu, Picard group of moduli spaces of semistable principal G-bundles over algebraic curves.

Gamber, Emily Brown, A topological classification of D-dimensional cellular automata.

Zheng, Xiaoyu, The effective properties of nematic polymer nano-composites.

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Chamú Morales, Francisco, Estimation of max-stable processes using Monte Carlo methods with applications to financial risk assessment.

Chen, Feng, Admission control and routing in multi-priority systems.

Ghosh, Arka, Controlled stochastic networks in heavy traffic.

Huang, Tao, Dynamic revenue management of flexible capacity.

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Pacheco-Soto, Ivan, Cyclical time series with squeezed time.

Ross, Kevin, Convergent numerical schemes for stochastic singular control problems with state constraints.

Wu, Yichao, Probability approximation with application in computational finance and computational biology.

University of North Carolina at Charlotte (2)

MATHEMATICS AND STATISTICS

Taylor, John, Arithmetic properties of pullback domains.

Techanie, Geta, Images of two to one continuous maps.

OHIO

Air Force Institute of Technology (2)

MATHEMATICS AND STATISTICS

Schubert, Christine, Quantifying correlation and its effects on system performance in classifier fusion.

Thorsen, Steven, The application of category theory and analysis of receiver operating characteristics to information fusion.

Bowling Green State University (6)

MATHEMATICS AND STATISTICS

Dunlap, Jonathan, Uniqueness of Curtis-Phan-Tits amalgams.

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Knox, Michelle, Algebraic and lattice theoretic properties of density continuous functions.

Marin, Juan, Dense sets of common cyclic vectors for Jordan operators.

Melnykov, Igor, Simultaneous inference in the analysis of gene expression data.

Roberts, Adam, A Phan-type theorem for orthogonal groups.

Case Western Reserve University (1)

MATHEMATICS

Feng, Qingfu, On pre-image topological pressures.

Ohio State University, Columbus (27)

MATHEMATICS

Chan, Ping-Shun, Invariant representations of GSp(2).

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Guler, Dincer, Chern forms of positive vector bundles.

Kane, Abdoul, Activity propagation in two-dimensional neuroray networks.

Kennell, Lauren, Boundary behavior of the Bergman kernel on locally strongly pseudoconvex domains with respect to weighted Lebesgue measure.

Lee, Seung Youn, Reflected Rouse model.

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Salminen, Adam, On the sources of simple modules in nilpotent blocks.

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Alexandridis, Roxana, Minimum disparity inference for discrete ranked set sampling data.

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Du, Juan, Judgment post-stratification for designed experiments.

Frey, Jesse, Inference procedures based on order statistics.

Huang, Yifan, Partition testing and maintenance gene solution.

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Li, Qianqiu, Bayesian inference on hepatotoxicity.

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Xu, Haiyan, Using the partitioning principle to control generalized familywise error rate.

Ohio University, Athens (1)

MATHEMATICS

Lee, Haewon, Nonlinear evolution equations and optimization problems in Banach spaces.

University of Cincinnati (1)

MATHEMATICAL SCIENCES

Diene, Adama, Structure of permutation polynomials.

University of Toledo (4)

MATHEMATICS

Hettiarachchi, Chamath, Representations for six dimensional Lie algebras with a codimension one nilradical.

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Wang, Shuwen, Statistical inferences for ROC curves under density ratio models.

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OKLAHOMA

Oklahoma State University, Stillwater (1)

MATHEMATICS

Zhu, Xinyun, Finite representations of a quiver arising from string theory.

University of Oklahoma (2)

MATHEMATICS

Stone, Andrea, A psychometric analysis of the statistics concept inventory.

Sulman, Robert, Affine group actions on Euclidean space.

OREGON

Oregon State University (3)

STATISTICS

Cooper, Cynthia, Developing a basis for characterizing precision of estimates produced from non-probability samples on continuous domains.

Monleon, Vicente, Regression calibration and maximum likelihood inference for measurement error.

Tsai, Guei-Feng, Semiparametric and mixed models for longitudinal data.

University of Oregon (5)

MATHEMATICS

Amende, Bonnie, G-irreducible subgroups of type A.

Dunn, Corey, Curvature homogeneous pseudo-Riemannian manifolds.

Montgomery, Martin, Global dimension of certain binomial rings.

Ruff, Oliver, Completely splittable representations of symmetric groups and affine Hecke algebras.

Wakefield, Max, On the derivation module and apolar algebra of a hyperplane arrangement.

PENNSYLVANIA

Bryn Mawr College (2)

MATHEMATICS

Campbell Hetrick, Beth, Continuous dependence results for inhomogeneous ill-posed problems.

Jordan, Jill, Generating family invariants for Legendrian links of unknots.

Carnegie Mellon University (16)

MATHEMATICAL SCIENCE

Andreev, Konstantin, Approximation algorithms for network design and graph partitioning problems.

Burgin, Kelley, Hamiltonian cycles in random graphs.

D'Silva, Stephen, Time consistent and currency invariant risk adjusted valuation.

Flaxman, Abraham, Average-case analysis for combinatorial problems.

Hilden, Sean, Allocation of risk capital via intra-firm trading.

Karolik, Anatoli, Modeling correlated credit rating migrations.

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Kravitz, David, Satisfiability and the giant component in online variants of the classical random models.

Speight, Adam, Multigrid methods for calibrating financial models.

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Buzoianu, Manuela, Bayesian decision making with application to a clinical trial.

Mitra, Sinjini, Efficient biometric authentication based on statistical models.

Myers, Kary, Developing models to reveal brain activation in massive neuroimaging datasets.

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Serban, Nicoleta, Analysis of multiple peaks and multiple curves with application to molecular biology.

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Lehigh University (4)

MATHEMATICS

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Muraleetharan, Murugiah, Evolution of curves by curvature flow.

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Pennsylvania State University, University Park (16)

MATHEMATICS

Chen, Long, Robust and accurate algorithms for solving anisotropic singularities.

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Genin, Daniel, Regular and chaotic dynamics of outer billiards.

Kim, Hyun Jeong, Coarse geometry of warped cones.

Lloyd, Kimberly, Two approaches to measures for algebraic independence.

Luu, Viet-Trung, A large-scale approach to K-homology.

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Tyurina, Yulia, Skew embeddings and immersions of manifolds into Euclidean spaces in codimension two.

Van Erp, Johannes H. A. M., The Atiyah-Singer index formula for subelliptic operators on contact manifolds.

Wang, Xiaoqiang, Phase field models and simulations of vesicle bio-membranes.

Temple University (7)

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Kahssay Abdulkadir, Mussa, Some limits of quantum walks on the hypercube and decoherence of Grover's search algorithm.

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University of Pennsylvania (8)

MATHEMATICS

Ben-Bassat, Oren, Twisting derived equivalences.

Can, Mahir, Nabla operator and combinatorial aspects of Atiyah-Bott Lefschetz theorem.

Dillies, Jimmy, Automorphisms and Calabi-Yau threefolds.

Mason, Sarah, Nonsymmetric Schur functions.

Perng, Cherng-tiao, Generalizations of Artin's conjecture for primitive roots.

Schoenenberger, Stephan, Planar open books and symplectic fillings.

Takeda, Shuichiro Takeda, Some local-global non-vanishing results for theta lifts from orthogonal groups.

Yuan, Haiping, Special value formulae of Rankin *L*-functions.

University of Pittsburgh (5)

MATHEMATICS

Cheng, Lan, Analysis and numerical solution of an inverse first passage problem from risk management.

Drover, Jonathan, The interplay of intrinsic dynamics and coupling in spatially distributed neuronal networks.

Jackson, Matthew, A sheaf theoretic approach to measure theory.

STATISTICS

Kim, Jeongeun, Parameter estimation in stochastic volatility models with missing data using particle methods and the EM algorithm.

Ren, Lulu, Parameter estimation for latent mixture models with applications to psychiatry.

RHODE ISLAND

Brown University (20)

APPLIED MATHEMATICS

Chou, Ching-Shan, High order residual distribution conservative finite difference WENO schemes for steady state problems on non-smooth meshes.

Costanzino, Nicola, Existence and stability of nonlinear wave structures in one and several space dimensions.

Elmoghraby, Amal, Capturing complex geophysical flows from Lagrangian dynamics.

Hoffman, Aaron, Crystallographic pinning for traveling waves in lattice differential equations: Generic properties and higher codimensional phenomena.

Jin, Ya, Probabilistic hierarchical image models.

Kanevsky, Alex, High order implicit-explicit Runge-Kutta time-integration methods and applications and time-consistent filtering in spectral methods.

Lurati, Laura, Topics in spectral methods: Coping with uncertainty and the Gibbs phenomenon.

Madiman, Mokshay, Topics in information theory, probability and statistics.

Redd, Thomas, Measures of ergodicity, mixing, and transport in 2D maps and flows.

Sendersky, Radislav, Advanced high order numerical methods for shock waves computations.

Sezer, Ali Devin, Dynamic importance sampling for queueing networks.

Symeonidis, Vasileios, Numerical methods for multi-scale simulation of non-Newtonian flows.

Wilcox, Lucas, High order accurate methods for solving the time-harmonic Maxwell's equations.

Yuan, Ling, Discontinuous Galerkin method based on non-polynomial spaces.

MATHEMATICS

Bucur, Alina Ioana, On the simultaneous nonvanishing of quadratic twists of GL(2) *L*-series over the rational function field.

Ha Quang, Minh, Reproducing kernel Hilbert spaces in learning theory.

Hur, Mikyoung Vera, Steady water waves with vorticity.

Jiang, Yongbin, Weil-étale topologies over local rings.

Wilkin, Graeme Peter, An analytic stratification of the space of Higgs bundles.

Xing, Yulong, High order well-balanced numerical schemes for hyperbolic systems with source terms.

University of Rhode Island (1)

MATHEMATICS

Quinn, Eugene, On the boundedness character of third-order rational difference equations.

SOUTH CAROLINA

Clemson University (5)

MATHEMATICAL SCIENCES

Lin, Wei, Statistical inference for single-index models.

Nimitkiatklai, Kanoktip, The lifetimes of random sets.

Szurley, David, Optimal control for polymer process modeling.

Thomas, Alan, Inverse problems for partial differential equations arising in optical imaging for highly scattered media.

Wlodarczyk, Dariusz, Synthesis dynamic multi-rigid-body contact problems with friction.

Medical University of South Carolina (3)

BIOSTATISTICS, BIOINFORMATICS, AND EPIDEMIOLOGY

Chen, Yian, Optimal DNA microarray design.

Jenkins, Ruth, Internet access of electronic medical record research data.

Travis, Penny, Drinking water source, sewage disposal, and risk of Helleobacter pylori in US/Mexico border children.

University of South Carolina (4)

MATHEMATICS

Ding, Yabin, Multiscale ELLAM methods for transient advection-diffusion equations with highly oscillatory coefficients.

Jin, Xiaohua (Teresa), Real number graph labelings with distance conditions.

Wang, Hua, Subtrees of trees, Wiener index and related problems.

Wu, Jianfeng, Connecting relation algebras to forcing.

TENNESSEE

University of Memphis (5)

MATHEMATICAL SCIENCES

Ke, Weiming, State space models in some medical problems.

Li, Huajiang, A system of efficient and portable multiple recursive generators of large order.

Liu, Henry, Recent extremal problems in combinatorics.

Morris, Robert D., Phase transitions in combinatorics.

Murdock, Julie Angela, Persistence and stability of spatial patterns in neural network models.

University of Tennessee, Knoxville (4)

MATHEMATICS

Cathey, Matthew, Packings of conformal preimages of circles.

Hrynkiv, Volodymyr, Optimal control of partial differential equations and variational inequalities.

Shattuck, Mark, Parity theorems for combinatorial statistics.

Szapiel, Marek, Hypersurfaces of prescribed hyperbolic curvature.

Vanderbilt University (3)

MATHEMATICS

Mirani, Mozhgan, Classical trees and ultrametric spaces.

Zhao, Yan, A model for strep throat infection: Dynamics of contingency gene selection in an infected host.

Zhong, Changyong, Multiplication operators and m-Berezin transforms.

TEXAS

Baylor University (5)

MATHEMATICS

Gray, Michael, Uniqueness implies uniqueness and existence for nonlocal boundary value problems for third order ordinary differential equations.

Ma, Ding, Uniqueness implies uniqueness and existence for nonlocal boundary value problems for fourth order differential equations.

STATISTICAL SCIENCES

Feng, Amy, Bayesian evaluation of surrogate endpoints.

McBride, John, Conjugate hierarchical models for spatial data: An application of an optimal selection procedure.

Spann, Melissa, Bayesian adaptive designs for non-inferiority and dose selection trials.

Rice University (19)

COMPUTATIONAL AND APPLIED MATHEMATICS

Comas, Agata, Time-domain decomposition preconditioners for the solution of discretized parabolic optimal control problems.

Dussaud, Eric, Velocity analysis in the presence of uncertainty.

Hartsfield, Jane, A quantitative study of neuronal calcium signaling.

Merritt, Michael, A sensitivity-driven approach to fluence map optimization in intensity-modulated radiation therapy.

Ridzal, Denis, Trust-region SQP methods with inexact linear system solves for large-scale optimization.

Thornquist, Heidi, Fixed-polynomial approximate spectral transformations for preconditioning the eigenvalue problem.

MATHEMATICS

Peterson, James, Coordinate scans, compactness properties, and area minimization.

Wu, Yue, Applications of Rauzy induction on the generic ergodic theory of exchange transformations.

STATISTICS

Cong, Xiuyu (Julie), Some statistical issues in breast cancer screening studies and clustered failure times data.

Davis, Ginger, Examining some open problems in the wide spectrum of time series analysis.

Deng, Li, Modeling the carcinogenesis in lung cancer: Taking smoking and genetic susceptibility into account.

Ding, Meichun (Michelle), Bayesian optimal design for phase II screening trials.

Han, Shu, Modeling auxiliary information in clinical trials.

Lee, Jong Soo, Hypothesis testing with functional data.

Peng, Bo, A simulation-based study on the impact of population stratification on the allelic spectrum of human disease.

Rudnicki, Krzysztof, A dynamic model for survival data with longitudinal covariates.

Scott, Alena, Denoising by wavelet thresholding using multivariate minimum distance partial density estimation.

Yu, Zhaoxia, Haplotype blocks and association mapping.

Zhou, Xian (Nicole), Bayesian inference of ordinal data.

Southern Methodist University (2)

MATHEMATICS

Risser, Hilary, Computational methods for singularly perturbed two-point boundary value problems.

Wang, David, Parallel computation for reservoir thermal simulation: An overlapping domain decomposition approach.

Texas A&M University (22)

MATHEMATICS

Copeland, Dylan, Negative-norm least-squares methods for axisymmetric Maxwell equations.

Dascaliuc, Radu, Behavior of dissipative PDE's for negative times.

Fuselier, Edward, Refined error estimates for matrix-valued radial basis functions.

Henderson, Troy, Causal equivalence of frames.

Kim, Taejong, Mesh independent convergence of modified inexact Newton methods for second order nonlinear problems.

McDonald, Terry, Piecewise polynomial functions on a planar region: Boundary constraints and polyhedral subdivisions.

Onica, Constantin, Forced two-layer beta-plane quasigeostrophic flow.

Randrianarivony, Lovasoa, Nonlinear classification of Banach spaces.

Sahutoglu, Sonmez, Compactness of the d-bar Neumann problem and Stein neighborhood bases.

STATISTICS

Baladandayuthapani, Veerabhadran, Bayesian methods in bioinformatics.

Choi, Sujung, On two-sample data analysis by exponential model.

Hintze, Christopher, Modeling correlation in binary count data with application to fragile site identification.

Hintze, Eric, Small sample multiple testing with application to cDNA microarray data.

Kim, Kyong Ryun, Second order accurate variance estimation in poststratified two-stage sampling.

Kim, Myung Suk, Statistical testing and estimation in continuous time interest rate models.

Kim, Sinae, Bayesian variable selection in clustering via Dirichlet process mixture models.

Kwon, Deukwoo, Wavelet methods and statistical applications: Network security and bioinformatics.

Munoz Maldonado, Yolanda, Mixed models, posterior means and penalized least squares.

Qian, Yi, Topics in multiple hypotheses testing.

Ren, Haobo, Functional inverse regression and reproducing kernel Hilbert space.

Schumann, Keith, Resampling confidence regions and test procedures for second degree stochastic efficiency with respect to a function.

Shin, Hyejin, Infinite dimensional discrimination and classification.

Texas Tech University (12)

MATHEMATICS AND STATISTICS

Bandulasiri, Ananda, Statistical shape analysis in medical imaging.

Bumpus, J'Lee, Deformations on tori.

Chen, Baili, Mathematical models of motion detection in the fly's visual cortex.

Fernando, Pitipanage Harshini, Small sample inference in nonlinear regression models.

Holsapple, Raymond, Computational issues in autonomous control of unmanned air vehicles.

Hume, Casey, A sharp bound for the fourth coefficient for bounded convex functions.

Koskodan, Rachel, Extrapolation of implicit numerical methods for stochastic differential equations and stochastic models for multiple assets with application to options.

Martin, David, Maximizing the generalized Fekete-Szego functional over a class of hyperbolically convex functions.

McCormack, Robert, Multi-host and multi-patch mathematical epidemic models for disease emergence with applications to hantavirus in wild rodents.

Navaratna, Menaka, Statistics of random eigenvalues of large dynamical systems in biology and engineering.

Palamakumbura, Rathnamali, Control of solutions in MEMs actuator arrays.

Sugathadasa, Manjula, Affine and projective shape analysis with application.

University of Houston (7)

MATHEMATICS

Hay, Damon, Noncommutative topology and peak interpolation for operator algebras.

Leite, Maria, Homogeneous three-cell networks.

Muhm, Philip, Kuratowski's 14-set theorem—a model logic view.

Myers, Richard, Numerically consistent approximations for optimal control problems applied to stiff chemical systems.

Pacull, Francois, A numerical study of the immersed boundary method.

Pati, Arati, Numerical simulation of incompressible viscous flow with moving boundaries.

Svyatskiy, Daniil, Discretization methods and iterative solvers for diffusion equation on unstructured polyhedral meshes.

University of North Texas (4)

MATHEMATICS

Al-Haddad, Shemsi, Generic algebras and Kazhdan-Lusztig theory for monomial groups.

Bryant, Ross, A computation of partial isomorphism on ordinal structures.

Ghenciu, Andrei, Dimension spectrum and graph directed Markov systems.

Howard, Tamani, Hyperbolic Monge-Ampère equation.

University of Texas, Arlington (4)

MATHEMATICS

Deng, Shutian, Direct numerical simulation for flow transition over a flat plane.

Fleitas, Dionisio, The least-squares finite element method for grid deformation and mesh free application.

Grantz, Cynthia, Asymptotics of the diameter for large random graphs.

Liu, Jie, New developments of the deformation method.

University of Texas, Austin (16)

INSTITUTE FOR COMPUTER ENGINEERING AND SCIENCE

Branets, Larisa, A variational grid optimization method based on a local cell quality metric.

Eslinger, Owen, Discontinuous Galerkin finite element methods applied to two-phase, air-water flow problems.

Kolos, Sergey, Risk management in energy markets.

Phillips, Phillip J., Finite element methods in linear poroelasticity: Theoretical and computational results.

Zhang, Yongjie, Boundary/finite element meshing from volumetric data with applications.

MATHEMATICS

Brunson, Dana, Simulating fluid flow in vuggy porous media.

Chesebro, Eric, Undetected boundary slopes and roots of unity for the character variety of a 3-manifold.

Derby-Talbot, Ryan, Heegaard splittings of toroidal 3-manifolds.

Jedlicka, David, On the suitability of power functions as S-boxes for symmetric cryptosystems.

Kaplan, Jennifer, Factors in statistics learning: Developing a dispositional attribution model to describe the development of statistical proficiency.

Lalin, Matilde, Some relations of Mahler measure with hyperbolic volumes and special values of L-functions.

Macasieb, Melissa, Derived arithmetic Fuchsian groups of genus two.

Masri, Riad, Some applications of classical modular forms to number theory.

McKinnie, Kelly, Non-cyclic and indecomposable p-algebras.

McReynolds, David Ben, Cusps of arithmetic orbifolds.

Nolen, James, Reaction-diffusion fronts in inhomogeneous media.

University of Texas, Dallas (4)

MATHEMATICAL SCIENCES

Dang, Xin, Nonparametric multivariate outlier detection methods, with applications.

Lasater, Lena, Inverse problems of electromagnetic obstacle scattering and the method of lines.

Zheng, Hanzhe, Asymptotic distributions of similarity coefficients and similarity tests.

Zhou, Weihua, Generalized spatial U-quantiles: Theory and applications.

UTAH

Brigham Young University (1)

MATHEMATICS

Woodruff, Benjamin, Statistical properties of Thompson's group and random pseudo manifolds.

University of Utah (4)

MATHEMATICS

Caspers, Renate, Asymptotic theory for GARCH-M processes.

Chu, Kenneth, The moduli space of real binary octics.

Clay, Matthew, Deformation spaces of G-trees.

Shimomoto, Kazuma, Frobenius map in mixed characteristic.

VIRGINIA

Old Dominion University (2)

MATHEMATICS AND STATISTICS

Huabsomboon, Pallop, Implicit level set method for firespread model.

Samyono, Widodo, Hessian matrix-free Lagrange-Newton-Krylov-Schur-Schwarz methods for elliptic inverse problems.

University of Virginia (5)

MATHEMATICS

Higginbottom, Ryan, The nilpotent filtration in group cohomology.

Kent, Deborah, Benjamin Peirce and the promotion of research-level mathematics in America: 1830–1880.

Martini, Laura, Political and mathematical unification: Algebraic research in Italy, 1850–1914.

Valenti, Erin, On an infinite elastica: Local well-posedness of the initial value problem and stability of solitary waves.

Yang, Jack, A new approach to the modeling of correlation credit derivatives.

Virginia Polytechnic Institute and State University (3)

MATHEMATICS

Conrad, Emery, Bifurcation analysis and qualitative optimization of models of biochemical regulatory networks with applications to circadian rhythms.

Potter, Dustin, A combinatorial approach to scientific exploration of gene expression data: An integrative method using formal concept analysis for the comparative analysis of microarray data.

Stigler, Brandylin, An algebraic approach to reverse engineering with an application to biochemical networks.

WASHINGTON

University of Washington (21)

APPLIED MATHEMATICS

Gkioulekas, Elef, The Nastrom-Gage energy spectrum of the atmosphere, proposed theoretical explanations and the double cascade theory.

Heuett, Willie, New methods for modeling large-scale biochemical networks.

Meza, Rafael, Some extensions and applications of multistage carcinogenesis models.

Reluga, Timothy, Some results on temporal and spatial heterogeneity in theoretical ecology.

BIOSTATISTICS

Janes, Holly, Adjusting for covariate effects in biomarker studies using the subject-specific threshold ROC curve.

Qin, Li-Xuan, The clustering of regression models method with applications in gene expression data.

Shepherd, Bryan, Causal inference in HIV vaccine trials: Comparing outcomes in a subset chosen after randomization.

MATHEMATICS

Couperus, Peter, Combinatorial problems on abelian Cayley graphs.

Frigyik, Bela, Injectivity and stability of generalized X-ray transforms on curves.

Helliwell, Dylan, Boundary regularity for conformally compact Einstein metrics in even dimension.

Lind, Joan, The geometry of Loewner evolution.

Littig, Peter, Schubert varieties and the homology ring of the loop space of a compact Lie group.

O'Shea, Edwin, Toric algebra and the weak perfect graph theorem.

White, David, Processes with inert drift.

STATISTICS

Bailer, Heiko, Robust estimation of factor models in finance.

Basu, Saonli, Allele-sharing methods for linkage detection using extended pedigrees.

Chaudhuri, Sanjay, Using the structure of d-connecting paths as a qualitative measure of the strength of dependence.

Jager, Leah, Goodness-of-fit statistics based on phi-divergences.

Maathuis, Marloes, Nonparametric estimation for current status data with competing risks.

Scheet, Paul, An efficient and flexible model for patterns of population genetic variation.

Stewart, William, Alternative models for estimating genetic maps from pedigree data.

Washington State University (4)

MATHEMATICS

Alvarado, Francisco, A nonlinear stability analysis of rhombic optical pattern formation in an atomic sodium vapor ring cavity.

Griffin, Kent, Solving the principle minor assignment problem and related computations.

Loveless, Andrew, Extensions in the theory of Lucas and Lehmer pseudoprimes.

Zhou, Huajun, Multivariate compound point processes with drifts.

WEST VIRGINIA

West Virginia University (5)

MATHEMATICS

Millán Millán, Andrés, Applications of the covering property axiom.

Ou, Yongbin, Maximum size t-cross-intersecting families with degree conditions.

Shao, Yehong, Claw-free graphs and line graphs.

Simon Romero, Likin, Hyperspace graph of connected subgraphs.

Xue, Fei, Asymptotic solutions of almost diagonal differential and difference equations.

WISCONSIN

Marquette University (1)

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

Kirova Yordanova, Roumyana, Markov chain decomposition and characterization of hypertensive blood pressure with application to linkage analysis.

Medical College of Wisconsin (2)

BIOSTATISTICS

Lu, Leiyan, Explained variation in survival analysis and hypothesis testing for current leukemia-free survival.

Zhang, Xu, Inference for cumulative incidence function with right censored and/or left truncated competing risks data.

University of Wisconsin, Madison (15)

MATHEMATICS

Bisgard, James, Momoclinic and heteroclinic orbits for Hamiltonian systems.

Carracino, Christine, Estimates for the Szego kernel on a non-pseudoconvex domain.

Charalambides, Marios, Stable spectral methods with no spurious eigenvalues.

Davis, Joshua, Degenerate relative Gromov-Witten invariants and symplectic sums.

Dwyer, Chris, Twisted equivariant K-theory for proper actions of discrete groups.

Jenkins, Michael, Equivalences of holomorphic mappings in one and several complex variables.

Kent, Thomas, Decidability and definability in the σ_2^0-enumeration degrees.

McQuistan, Michael, Relativized character degree problems.

Ramsamooj, Neil, Gromov-Witten invariants of a $K3$ fibration.

Rushto, Joshua, Small-ball estimates and accompanying LIL for alpha-stable and related processes.

Swisher, Holly, Asymptotics and congruence properties for Stanley's partition function, and a note on a theorem of Koike.

Temple, Kathryn, Particle representations for measure-valued processes with interactions and exit measures.

Weinberg, Aaron, A framework for analyzing objects in mathematical discourse.

Wiesner, Emilie, Translation functors and the Shapovalov determinant.

Vega, Ramiro de la, Homogeneity properties on compact spaces.

WYOMING

University of Wyoming (2)

MATHEMATICS

Fleming, Patrick, Projective planes and related topics.

Kim, In-Jae, Spectral properties of combinatorial classes of matrices.

Doctoral Degrees Conferred 2005–2006

Supplementary List

The following list supplements the list of thesis titles published in the February 2007 *Notices*, pages 277–97.

CALIFORNIA

University of California, Davis (4)

STATISTICS

Kerr, Joshua, Signal extraction for seismic array data via partially linear least-squares.

Wu, Ping-Shi, Time-dynamic density estimation and functional discrimination for high-dimensional data.

Zhang, Ying, Time-varying functional regression models for time-to-event.

University of California, Irvine (4)

MATHEMATICS

Akhmedov, Anar, Smooth Structures on 4-manifolds with small Euler characteristics.

Beyaz, Ahmet, A new construction of spin smooth 6-manifolds.

Haessig, Douglas, On the symmetric power of the P-adic D-airy family.

Zhao, Rui, Computational studies of morphogen gradients.

University of California, Riverside (2)

STATISTICS

Kwon, Soonil, Spatial discrete choice models for multinomial respones.

Zainal, Mohammad, Skew-normal distribution with a cauchy skewing function.

IOWA

Iowa State University (4)

MATHEMATICS

Alm, Jeremy, Weak representation theory in the calculus of relations.

Kim, Joohyung, Classification of small class association schemes coming from certain combinatorial objects.

Meyer, Kristen, A new message authentication code based on the non-associativity of quasigroups.

Rajaram, Rajeev, Exact boundary controllability results for sandwich beam systems.

KENTUCKY

University of Kentucky (4)

STATISTICS

Bush, Heather, Khatri-Rao products and conditions for the uniqueness of PARAFAC solutions for 1xJxK arrays.

Chen, Min, Some contributions to the empirical likelihood method.

Tarima, Sergey, Consistency and generalization error bound of feed-forward neutral network trained with smoothing regularizer.

Liu, Chengan, Some sequential and two-stage procedures for selecting the best of treatments in clincial trials.

MARYLAND

University of Maryland, Baltimore County (6)

MATHEMATICS AND STATISTICS

Bebu, Ionut, Some statistical and probabilistic problems in Markov chains.

Gavrea, Bogdan, Simulation of rigid body system with joints, contact and friction.

Li, Cao, The assessment of multivariate bioequivalence.

Liu, Guohui, Sequential designs for logistic phase-I clinical trials.

Wu, Yanping, Topics in univariate bioequivalence testing.

Zhang, Lanju, Response-adaptive randomization in clinical trials with continuous and survival time outcomes.

MASSACHUSETTS

Tufts University (1)

MATHEMATICS

Finn, Lucas, A variational approach to vortex core identification.

MICHIGAN

Western Michigan University (2)

STATISTICS

Ratanaruamkarn, Sauwanit, New estimates of a circular median.

Scherzer, Rebecca, Testing procedures for group sequential clinical trials with multiple survial endpoints.

NEW JERSEY

Princeton University (8)

PROGRAM IN APPLIED COMPUTATIONAL MATHEMATICS

Anthoine, Sandrine, Different wavelet-based approaches for the separation of noisy and blurred mixtures of components. Application to Astrophyical data.

Frierson, Dargan, Studies of the moist general circulation with a simplified moist GCM.

Gerber, Edwin, A dynamical and statistical understanding of the North Atlantic oscillation and annual modes.

Golden, Cliona, Spatio-temporal methods in the analysis of fMRI data in neuroscience.

Leslie, Nandi, Spatial stochastic models for landscape degrading and deforestation in Bolivia and Brazil.

Rustamov, Raif, On Heegard Floer homology of three-manifolds.

Sharp, Richard, Computational methods inspired by chemistry: multiscale modeling and mechanics of control.

Zou, Jing, Sublinear algorithms for the Fourier transform of signals with very few Fourier modes: theory, implementations, and applications.

NEW York

Cornell University (2)

BIOMETRICS UNIT

Denogean, Lisa Renee, Improved approximations of the density functions of estimators in population genetics.

Long, Yu, Bayesian Analysis of Levy processes with financial applications.

OHIO

Case Western Reserve University (6)

EPIDEMIOLOGY AND BIOSTATISTICS

Campbell, Robert, Burden of disease amongst Carolina lupis patients: economic, humanistic, and clinical factors.

Davidson, Carrie, Efficiency, quality and costs in Ohio nursing homes.

Diggs, Jessica, The impact of medicaid outreach initiatives on the health and healthcare access of children in Ohio.

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

Schumacher, Fredrick Ray, Relation between selenoprotein gene, selenium, and prostate cancer.

Wang, Tao, Extensions of Haseman-Elstron regression for linkage analysis.

SOUTH CAROLINA

University of South Carolina (3)

STATISTICS

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

Parody, Robert, Simultaneous inference on the improvement in response surfaces.

Vera, Francisco, General convex stochastic orderings and related martingale-type structures.

VIRGINA

Virgina Tech (8)

STATISTICS

Chen, Younan, Bayesian hierarchical modeling on dual response surfaces.

Duan, Yuyan, A modified Bayesian power prior approach with applications in water quality evaluation.

Eisenbies, Penelop, Bayesian hierarchical methods and use of ecological thresholds and changepoints for habitat selection models.

Jensen, Willis, Profile monitoring for mixed model data.

Modarres-Mousavi, Shabnam, Monitoring Markov dependent binary observations with a log-likelihood ratio base CUSUM control chart.

Sego, Landon, Applications of control charts in medicine and epidemiology.

Yan, Mingjin, Methods of determining the number of clusters in a data set and a new clustering criterion.

Zhong, Xin, Efficient sampling plans for control charts when monitoring an autocorelated process.

WISCONSIN

University of Wisconsin, Madison (9)

STATISTICS

Lu, Yuefeng, Contributions to functional data analysis with biological applications.

Monuz, Alendro, On approximate p-values for time series outlier detection.

Peng, Limin, Contributions to semi-completing risks data.

Song, Qinghua, Contributions to regression and classification tree methods.

Wang, Lin, Imputation methods for non-monotone non-ignorable missing data in logitudinal studies.

Xie, Xianhong, Smoothing in magnetic resource image analysis and a hybrid loss for support vector machine.

Yang, Hyuna, Model-based clustering of genomic observations: generalizing the instability selection network model.

Yan, Ping, Bayesian cluster modeling for space-time disease counts.

Yue, Wei, Multi-resolution tree-structured spatial models.

University of Wisconsin, Milwaukee (3)

MATHEMATICAL SCIENCES

Liu, Zhiyuan, Vortices in deformation background flow-A sensitivity source of the atmosphere.