Doctoral Degrees Conferred
2010–2011

ALABAMA
Auburn University (6)
DEPARTMENT OF MATHEMATICS AND STATISTICS
Alfonso, Paul, Jr., A generalization of special atom spaces with arbitrary measure
Back, Roxanne, K4-e designs with a hole
Boronski, Jan, Fixed points and periodic points of orientation reversing planar homeomorphisms
Gulderdek, Asli, On continuously Urysohn spaces
McCaulley, Laura, Hamiltonian decompositions of multi-partite graphs with specified leaves
Ngwane, Fidele, Integral closures

University of Alabama (1)
DEPARTMENT OF MATHEMATICS
Mahawanniarachchi, Padmal, P-algebras and Q-algebras

University of Alabama at Birmingham (7)
DEPARTMENT OF BIOSTATISTICS
Robertson, Henry, Analysis of survival data with censored outcomes
DEPARTMENT OF MATHEMATICS
Al-Sharadqah, Ali, Statistical analysis of curve fitting in errors-in-variables models
AlAhmad, Rami, On inverse problems for left-definite discrete Sturm-Liouville equations
Freiji, Abraham, The BCS gap equation for asymmetric fermionic systems
Larussa, Mary, Conditional well-posedness and error bounds for the ground water inverse problem
Mimbs, Debra, Laminations: A topological approach
Nichols, Roger, Spectral properties of structurally disordered media

University of Alabama-Huntsville (1)
DEPARTMENT OF MATHEMATICAL SCIENCES
Hughes, Jeremy, Hermite continuation and numerical bifurcation

University of Alabama-Tuscaloosa (3)
DEPARTMENT OF INFORMATION SYSTEMS
Boone, Jeffrey, Contributions to multivariate control charting: Studies of the Z chart and four nonparametric charts
Michaelson, Greg, On the identification of statistically significant network topology
Sasamoto, Mark, Model tree analysis with randomly generated and evolved trees

ARIZONA
Arizona State University (21)
MATHEMATICS, COMPUTATIONAL AND MODELING SCIENCES CENTER
Cordero-Soto, Ricardo J., Solvable time-dependent models in quantum mechanics
Diaz Herrera, Edgar, Diffusive instability and aggregation in epidemics
Urdapilleta, Alicia, Theoretical studies on a two strain model of drug resistance: Understand, predict, and control the emergence of drug resistance

SCHOOL OF MATHEMATICAL AND STATISTICAL SCIENCES
Castillo-Garsow, Carlos, Teaching the Verhulst model: A teaching experiment in covariational reasoning and exponential growth
Dhirasakdanon, Thanate, A model of infectious diseases in amphibian populations with ephemeral larval habitat
Eke, Burce, Statistical models for social network data
Franks, Chase, Classifying lambda modules up to isomorphism and applications to Iwasawa theory
Guevara, Cristi Darley, Global behavior of finite energy solutions to the focusing nonlinear Schrödinger equation in d-dimension
Jennings, Andrew, Monotonicity and manipulability of ordinal and cardinal social choice functions
Kamat, Vikram, Erdős-Ko-Rado theorems: New generalizations, stability analysis and Chvátal’s conjecture
Lage Ramirez, Ana Elisa, Mathematical knowledge for teaching: Exploring a teacher’s sources of effectiveness
Lin, Youzuo, Numerical issues from inverse problems in image processing: Parameter estimation, and parallel algorithms for a high performance computing environment
Manley, Michael, Saddle squares in random two person zero sum games with finitely many strategies
McCamy, Michael, The efficacy and contribution of microsaccades during visual fixation
Moore, Kevin, The role of quantitative reasoning in precalculus students learning central concepts of trigonometry
Patani, Nura, C*-correspondences and topological dynamical systems associated to generalizations of directed graphs
Shen, Wei, A sparsity enforcing framework with TV-L1 regularization and its application in MR imaging and source localization
Smith, David, The first-fit algorithm uses many colors on some interval graphs
White, Jacob, On the complement of r-disjoint k-parabolic subspace arrangements
Zuo, Miao, Gamma latent variable model for non-negative matrix factorization

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 2010, to June 30, 2011) reported in the 2011 Annual Survey of the Mathematical Sciences by 197 departments in 143 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.
University of Arizona (10)

Department of Mathematics

Champion, Daniel, Möbius structures, Einstein metrics, and conformal variations on piecewise flat two and three dimensional manifolds

Herzog, David, Ergodicity of certain degenerate complex diffusion processes

Shao, Yijian, A compactification of the space of algebraic maps from $P^1$ to a Grassmannian

Taft, Jefferson, Intrinsic geometric flows on manifolds of revolution

Weir, Brad, The transfer of momentum from waves to currents due to wave breaking

Yin, Mei, Spectral properties of the renormalization group

Program in Applied Mathematics

Diniegla, Serina, Modeling aedolian dune and dune field evolution

Jimenez, Edward, Simulation and estimation of organ uptake in a digital mouse phantom

Pittman-Polletta, Benjamin, Factorization in unitary loop groups and reduced words in affine Weyl groups

Robertson-Tessi, Mark, Mathematical models of tumor growth and treatment

Arkansas

University of Arkansas at Fayetteville (1)

Mathematical Sciences Department

Stovall, Jessica, Nonlinear functionals on Banach lattices and their support sets

California

California Institute of Technology (9)

Department of Applied and Computational Mathematics

Becker, Stephen, Practical compressed sensing: Modern data acquisition and signal processing

Betti, Catherine E., Simulation capabilities for challenging medical imaging and treatment planning problems

Flan, Yaniv, Compressed sensing, sparse approximation, and low-rank matrix recovery

Vytetenko, Svitlana, Network coding for error correction

Department of Mathematics

Louwsma, Joel, Extremality of the rotation quasimorphism on the modular group

Lukic, Milivoje, Spectral theory for generalized bounded variation perturbations of orthogonal polynomials and Schrödinger operators

Nelson, Paul, Some new aspects of mass equidistribution

Wahl, Nahid, Supersingular distribution, congruence class bias and a refinement of strong multiplicity one

Zhang, Dapeng, Projective Dirac operators, twisted $K$-theory and local index formula

Claremont Graduate University (3)

School of Mathematical Sciences

Sepikas, John, Enhanced lattice methods for high dimensional quadrature applications

Vu, Hun, A coupled vibratory gyroscope network with bi-directional unidirectional, and direct coupling

Wang, Hsi-Ching, $Z^2$ of gauged baryon and lepton numbers at the large hadronic collider

Stanford University (26)

Department of Mathematics

Baskin, Dean, Wave equations on asymptotically de Sitter spaces

Chan, Ken Yin Kwan, Moduli spaces of pseudo-holomorphic disks and Floer theory of cleanly intersecting immersed Lagrangians

Chandee, Vorrapan, Upper bounds and moments of $L$-functions

Danciger, Jeffrey, Geometric transitions: From hyperbolic to AdS geometry

Gell-Redman, Jesse, On harmonic maps into conic surfaces

Hall, Jack, General existence theorems in moduli theory

Ivanov, Dmiirty, Part I: Symplectic ice; Part II: Global and local Kubota symbols

Lahtinen, Anssi, String topology and twisted $K$-theory

Malms, Eric James, String topology and the based loop space

Miller, Jason Peter, Limit theorems for Ginzburg-Landau random surfaces

Perea Benitez, Jose Andres, Topology of spaces of micro-images, and an application to texture discrimination

Vacarescu, Anca, Filtering and parameter estimation for partially observed generalized Hawkes processes

Williams, Thomas Benedict, The equivariant motivic cohomology of varieties of long exact sequences

Department of Statistics

Ahmed, Murat, Topics in unsupervised learning: Feature selection and multimodality

Chen, Ling, Option pricing and hedging with transaction costs

Chen, Yi Fang, Statistical combination of climate models

Deng, Shaojie, Sequential methods for rare event simulations: Theory and applications

Dyer, Justin, Visualizing and modeling joint behavior of categorical variables with a large number of levels

Hiller, David, Alternative splicing analysis using RNA-seq data

Johnson, Nicholas, Efficient models and algorithms for problems in genomics

Ma, Li, Coupling optional Polya trees and the two sample problem

Muralidharan, Omkar, A mixture model approach to empirical Bayes testing and estimation

Pong, Chung Kwan, Interest rate modeling and a time series model for functional data

Sun, Kevin, Dynamic empirical Bayes models and their applications to longitudinal data

Witten, Daniela, A penalized matrix decomposition and its applications

Xu, Ya, Semi-supervised learning on graphs—a statistical approach

University of California, Berkeley (26)

Department of Mathematics

Anderson, Meghan, Solution spaces for linear equations in valued $D$-fields

Canez, Santiago, Double groupoids, orbifolds, and the symplectic category

Cartwright, Dustin, Application of nonlinear algebra to biology

Choi, Ka Lun, Constructing a broken Lefschetz fibration of $S^4$ with a spin or twist-spun torus knot fiber

Cueto, Maria Angelica, Tropical implicitization

Farris, David, The embedded contract homology of circle bundles over Riemannian surfaces

Geraschenko, Anton, Toric stacks

Hill, Cameron, The formation and evolution of giant molecular clouds

Huang, An, On conformal field theory and number theory

Li, Qin, Prontrjagin forms on certain string homogeneous spaces

Lin, Shaowei, Algebraic methods for evaluating integrals in Bayesian statistics

McMillan, Aaron, On embedding singular Poisson spaces

Pavlov, Dmitri, A decomposition theorem for noncommutative $L_p$-spaces and a new symmetric monoidal bicategory of von Neumann algebras

Peterka, Mira Alexander, Finitely generated projective modules over theta deformed spheres

Raiciu, Claudiu, Secant varieties of Segre-Veronese varieties

Scow, Lynn Cho, Characterization theorems by generalized indiscernibles

Tonita, Valentin, Twisted Gromov-Witten invariants and applications to quantum $K$-theory

Vinzant, Cynthia, Real algebraic geometry in convex optimization
Zhu, John, Sticky incentives and dynamic agency: Optimal contracting with perks and shirking

GROUP IN BIOSTATISTICS

Aguilar-Schall, Raul, Semi-parametric graphical computation approach using loss-based estimation to estimate exposure effects: Applications on infant developmental outcomes

Goldstein, Benjamin, Finding genes related to disease using statistical learning

Gruber, Susan, Collaborative targeted maximum likelihood estimation

Porter, Kristin, The relative performance of targeted maximum likelihood estimators under violations of the positivity assumption

Rose, Sherri, Causal inference for case-control studies

Stitelman, Ori, Targeted maximum likelihood estimation techniques for time to event data and the implications of coarsening an explanatory variable of interest via dichotomization in the context of causal inference in semiparametric models

Tuglus, Catherine, Robust semiparametric regression estimation using targeted maximum likelihood with application to biomarker discovery and epidemiology

University of California, Davis (21)

DEPARTMENT OF MATHEMATICS

Denton, Tom, Excursions into algebra and combinatorics at q equals zero

Dragan, Patrick, Integrity theorems in Lie groups and quantum mechanics

Hunter, Blake, Data mining compressed, incomplete and inaccurate high dimensional data

Mohammadzadeh, Sonny, Results on the Euler characteristic and cohomology of Hamiltonian vector fields in the plane and its maximal nilpotent subalgebra

Ng, Stephen, Ordering of energy levels of $U(3|2)$ invariant Hamiltonians

Omar, Mohamed, Applications of convex and algebraic geometry to graphs and polytopes

O’Roarke, Sean, Spectral properties of random matrices with independent entries

Pan, Steven, Affine Stanley symmetric functions for the classical groups

Raymer, Anastasia, Mixing time of the 15 puzzle

Reintjes, Moritz, Shock wave interactions in general relativity and the emergence of regularity singularities

Schlichter, Tamara, Modeling the dynamics of central pattern generators and anesthetic action

Schwemmer, Michael, Influence of dendritic properties on the dynamics of oscillatory neurons

Shott, Martha, Traffic oscillations due to topology and route choice in elemental freeway networks

University of California, Los Angeles (41)

DEPARTMENT OF BIOSTATISTICS

Chen, Dong, Manifold models for functional data

Chen, Rongqi, Asymptotic distribution for the plug-in estimation of level sets

Greasy, Tamara, Powering the future: Wind power forecasts for Solano, California

Hagai, Yolanda, Estimating colorectal cancer screening in the presence of missing data in a population with a resistant subset and multiple observations

Mao, Meng, Semiparametric efficient estimation for a class of generalized proportional odds cure models, and an extended hazard model with longitudinal covariates

McAssey, Michael, Topics on associations among random processes

Su, Yu-Ru, Survival analysis for incomplete data

Yang, Wenjing, Functional correlation and dynamic relations for sparsely sampled random processes

University of California, Irvine (13)

DEPARTMENT OF MATHEMATICS

Alexander, Nicholas, Point counting on reductions of CM abelian surfaces

Cox, Geoff, Multi-component vesicle modeling under the influence of spontaneous curvature

Di, Feiyue, Multiple time scales method in HJM model

Klaasen, Zev, Selmer ranks of quadratic twists of elliptic curves

Larios, Adam, Inviscid regularization for equations of hydrodynamic models: An analytical and computational study

Lo, Wing-Cheong, Growth and pattern controls by morphogen gradients

Longo, Kate, Fourth order partial differential equations for image processing

Tran, Khang, Regularity of solutions for quasilinear subelliptic equations on Hessenberg group

Urwin, Erin, Stochastic modeling of cellular cooperation: Applications to cancer and evolution

Welters, Aaron, On the mathematics of slow light

Whitney, Joshua, Minimum distance of 3D toric error correcting codes

Zhao, Su, Computational study of signalizing specificity and epigenetic regulation

University of California, Los Angeles (41)

DEPARTMENT OF BIOSTATISTICS, SCHOOL OF PUBLIC HEALTH

Childs, Erica, Statistical models of maternal and offspring genetic effects for risk of disease

Kovalchik, Stephanie, Individual patient data meta-analysis of intervention studies

Strejä, Leonne, Models for motorcycle Grand Prix racing

DEPARTMENT OF MATHEMATICS

Azzam, Jonas, Two applications of B-number techniques

Bedrossian, Jacob, Part I: A virtual node method for elliptic interface problems; Part II: Local and global theory of aggregation equations with nonlinear diffusion

Brakovec, Miljan, Anticyclicotomic $p$-adic $L$-function and non-vanishing modulo $p$ of special $L$-values

Chen, Alexander, Boundary tracking in large data sets and modeling the evolution of landscapes

Creutz, Darren, Compressed sensing for the plug-in estimation of level sets

Dabrowski, Yoan, Free entropies, free Fisher information, free stochastic differential equations, with applications to von Neumann algebras

Do, Quang Yen, A nonlinear stationary phase method for oscillatory Riemann-Hilbert problems

Gao, Wenhua, The Laplace-Beltrami operator in a level set framework and its applications

Guo, Zhaohui, Applications of fast $L_1$-minimization algorithms in high-dimensional hyperspectral imagery

Hani, Zaheer, Global and dynamical aspects of nonlinear Schrödinger equations on compact manifolds

Huang, Yanghong, Self-similar blowup solutions of the aggregation equation

Kwok, Stephen, Some results in supersymmetric algebraic geometry

Liu, Wangyi, Two dynamical system models based on real-world scenarios: A swarming control model and a surface tension model

Lou, Yifei, Local, non-local and global methods in image reconstruction

Ma, Wenye, Variational models in image and signal enhancement

Maples, Kenneth, Arithmetic properties of random matrices

Mata, Matthew, Particle-laden thin film flow: An alternating direction implicit scheme and comparison between theory, numerical simulation and experiments

McAdams, Aleka, Efficient solutions to voxelized discretizations of elliptic problems with applications to physical simulation in visual effects
Meshkat, Nicolette, A differential algebra method for eliminating unidentifiability.
Meyerson, William, Lipschitz and bi-Lipschitz maps on Carnot groups.
Peter, Tobias, Prime ideals of mixed Artin-Tate motives.
Pozar, Norbert, Free boundary problems.
Smith, Paul, Subthreshold geometric renormalization and energy-critical Schrödinger maps.
Takei, Ryo, Applications of Hamilton-Jacobi equations to homogenization, optimal control and differential games.
Tweedy, Eamonn, On the anti-diagonal filtration for the Heegaard Floer chain complex of a branched double-cover.
Vanderberg-Rodes, Alexander, Generating function zeros of Markov processes and their applications.
Wadhar, Hem, Energy driven pattern formation in strained materials.
Wong, Tsz Wai, Computational quasiconformal geometry and its applications on medical morphometry and computer graphics.
Zhu, Yongning, Multigrid methods for solids simulation.

Department of Statistics

Brodsky, Janice, A multivariate methodology for genome association studies.
Cetinkaya, Mine, Estimating the impact of air pollution using small area estimation.
Chen, Hsiu Wen, The augmented desirability function: Methods and applications.
Clements, Robert, A comparison of residual analysis methods for space-time point with applications to earthquake forecast models.
Nichols, Kevin, New nonparametric methods for the summary and description of marked point processes.
Patel, Rakhee, Testing local self-similarity in univariate heavy-tailed data.
Si, Zhang Zhang, Learning hierarchical image templates for object recognition and detection.
Wilson, Bridgid, Statistical techniques for the analysis of questionnaire data with images.

University of California, Riverside (19)

Department of Mathematics

Chamberlin, Samuel, Integral bases for the universal enveloping algebras of map algebras.
Dolbin, Ronald, Abelian subalgebras of Z2-graded Lie algebras; partitions, Young diagrams, and ballot numbers.
Han, Richard, A construction of the “2221” planar algebra.
Huerta, John, Supersymmetry, division algebras and higher gauge theory.
Rafraadeh, Azadeh, Using twisted Alexander polynomials to detect fiberability.
Ridenour, Timothy, Faces of weight polytopes and a generalization of a result of Vinberg.
Rodgers, Christopher, Higher symplectic geometry.
Rolle, Brian, Construction of weak mirror pairs by deformations.
Walker, Christopher, A categorification of Hall algebras.

Department of Statistics

Banerjee, Hiya, Estimation of parameters for logistic regression model in dose-response using mixture experiments with known or unknown relative potency.
Chen, Xin, Low-level and high-level microarray data analysis.
Dey, Debashri, Estimation of the parameters of skew normal distribution using simple approximations of the ratio of the normal density and distribution functions.
Huang, Hung-Jen, Bayesian analysis of errors-in-variables growth curve models.
Huang, Michael (Pau Ze), Robust and optimum fractional factorial designs.
Li, Judy (Xiang), Sequential probability ratio tests for generalized linear mixed models.
Pettyjohn, Jeffrey, Model-based estimation and inference procedures for clock synchronization.
Shao, Nan, Modeling almost periodicity in point processes.
Wang, Bushi, Solving consistency problems in multiple testing procedures with consonant closed likelihood ratio test.
Wen, Masen, Statistical modelling of marked point processes and high frequency data.

University of California, San Diego (15)

Department of Mathematics

Chang, Christopher, Topics in nonparametric statistics.
Driscoll, Patrick R., Smooth densities for solutions to differential equations driven by fractional Brownian motion.
Ferry, Michael William, Projected-search methods for box-constrained optimization.
Greene, Jeremy Michael, Noncommutative pluriharmonic polynomials.
Jamall, Mohammad, Coloring triangle-free graphs and network games.
Minor, Andre, Transversal CR mappings.
Pesci, Vladimir, On dynamic scheduling of a parallel server system with certain graph structure.
Petrillo, Thomas A., Number theory type formulae appearing in graphs.
Scheinker, David, Bounded analytic functions on the polydisc.
Scullard, Michael Scott, The Russian option in a jump-diffusion model.
Shakeel, Asif, Implementing measurements and optimizing queries for the quantum hidden subgroup problem.
Shroff, Ravi, Rigidity properties of CR embeddings into hyperquadrics.
Vallieres, Daniel, On a generalization of the rank one Rubin-Stark conjecture.
Wong, Elizabeth Lai Sum, Active-set methods for quadratic programming.

University of California, Santa Barbara (8)

Department of Mathematics

Cloutier, John, The universal pairing of graphs.
Finegold, Brie, The torus complex and special linear groups over rings.
Howard, Thomas, Homological invariants in the representation theory of finite dimensional algebras.
Subway, Robert, Braided versions of crystallographic groups.

Department of Statistics and Applied Probability

Bennett, Nathan, Some contributions to middle-censoring.
Rivera, Roberto, Multivariate spatial temporal model with application to ocean color data.
Strong, Winslow, Arbitrage and stochastic portfolio theory in stochastic dimension.
Wu, Junqing, Basis selection from multiple libraries.

University of California, Santa Cruz (5)

Department of Applied Mathematics and Statistics

Datta, Saheli, Bayesian hierarchical models in characterizing molecular adaptation.
Holslaw, Tracy, Statistical modeling for dark energy and associated cosmological constants.
Simon, Christopher, Statistical analysis of single molecule experiments.
Traxler, Adrienne, Double-diffusive convection at high and low Prandtl numbers.

Department of Mathematics

Espina, Jacqueline, The mean Euler characteristic of contact manifolds.

University of Southern California (8)

Department of Mathematics

Chen, Jianfu, Optimization theory type formulae appearing in graphs.

Department of Mathematics

Pesic, Vladimir, On dynamic scheduling of a parallel server system with certain graph structure.
Petrillo, Thomas A., Number theory type formulae appearing in graphs.
Scheinker, David, Bounded analytic functions on the polydisc.
Scullard, Michael Scott, The Russian option in a jump-diffusion model.
Shakeel, Asif, Implementing measurements and optimizing queries for the quantum hidden subgroup problem.
Shroff, Ravi, Rigidity properties of CR embeddings into hyperquadrics.
Vallieres, Daniel, On a generalization of the rank one Rubin-Stark conjecture.
Wong, Elizabeth Lai Sum, Active-set methods for quadratic programming.
Keilberg, Marc, Higher indicators for some groups and their doubles
Kirtsaeng, Supap, Embedded contact homology of a unit cotangent bundle via string topology
Liu, Wei, Statistical inference for stochastic hyperbolic equations
Roger, Julien, Factorization rules in quantum Teichmüller theory
Tan, Minshao, Mathematical properties of ensemble Kalman filter
Vicol, Vlad, Analyticity and Gevrey class regularity for the Euler equations
Zhang, Changyoung, Numerical weak approximation of stochastic differential equations driven by Lévy processes

COLORADO

University of Colorado, Boulder (10)

DEPARTMENT OF MATHEMATICS

Dent, Topaz, Clones of finite idempotent algebras with strictly simple subalgebras
Kim, Eun, Giving Spitzer’s zero range process a positive range
Noyes, Michael, Spectral properties of the general beta Hermite and beta Laguerre ensembles in the limit beta to infinity
Roy, Michael, Coxeter group actions on complementary pairs of very well-poised $\tilde{3}_F^5(1)$ hypergeometric series
Stackpole, Matthew, Dynamic equivalence of control systems via infinite prolongations
Wiscs, Joshua, Moufang sets of finite Morley rank

University of Colorado, Denver (6)

DEPARTMENT OF MATHEMATICS AND STATISTICAL SCIENCES

Morrison, Tod, A new paradigm for robust combinatorial optimization: Using persistence as a theory of evidence
Stock, Elizabeth, Gradual numbers and fuzzy optimization
Thipwiwatnopjaroen, Phantipa, Linear programming problems for generalized uncertainty
Vecharynski, Yaugen, Preconditioned iterative methods for linear systems, eigenvalue and singular value problems
Viss, Timothy, Monomial hyperovals in Desarguesian planes
Wojciechowski, Keith, Analysis and numerical solution of nonlinear Volterra partial integrodifferential equations modeling swelling porous materials

University of Denver (2)

DEPARTMENT OF MATHEMATICS

Pula, Jon Kyle, Approximate transversals in Latin squares
Von Stroh, Jonathan, Lifting module maps between different noncommutative domain algebras

University of Northern Colorado (1)

SCHOOL OF MATHEMATICAL SCIENCES

Parker, Catherine “Frieda”, How intuition and language use relate to students’ understanding of span and linear independence in an elementary linear algebra class

CONNECTICUT

University of Connecticut, Storrs (13)

DEPARTMENT OF MATHEMATICS

Fang, Zhang, A qualitative research on Allen-Cahn equations
Huang, Xiang, Nonrigid image registration problem using fluid dynamics and mutual information
Ledford, Jeffrey, On the convergence of one parameter families of interpolators
Liang, Su, Investigating the model of high school mathematics teacher preparation in China
Mang, Wu, Stochastic analysis on some infinite dimensional groups
Whitehead, Brian, Time spent in sets by jump processes
Xu, Fangjun, A class of singular symmetric Markov processes
Zhlobich, Pavel, Quasiseparable matrices and polynomial

University of Hartford

DEPARTMENT OF STATISTICS

Fama, Yuchen, A self-exciting switching model
Hurtado-Rua, Sandra, A new class of Bayesian survival models and beyond
Prates, Marcos, Link specification and spatial dependence for generalized linear mixed models
Stratton, Jeffrey, Diagnostic accuracy of a binary test in the presence of two types of missing values
Tchumthoua, Sylvie, Bayesian semiparametric models for discrete longitudinal data

Wesleyan University (4)

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Bravo-Vivallo, Daniel, The stable derived category of a ring via model category
Burke, John, On infection by string links and new structure in the knot concordance group
Fera, Joseph, On exceptional points for cocompact Fuchsian groups
Lazowski, Andrew, Results on the size of limit sets of Kleinian groups

Yale University (5)

DEPARTMENT OF MATHEMATICS

Kong, Wai Yip, Efficient solution of several types of partial differential equations

DIVISION OF BIOSTATISTICS

Cislo, Paul, Spatial mixture models with ecological and public health applications
Hsieh, Fu-Chi, A Bayesian hierarchical spatial approach for the misalignment problem in disease mapping
Li, Shu-Xia, Covariate-adjusted response-adaptive randomization procedures in multi-arm clinical trials with continuous response variables
Zhang, Lixun, A Bayesian spatio-temporal model for estimating daily nitrogen dioxide levels
DELTA-WORK
University of Delaware (2)
Department of Mathematical Science
Cromer, Michael, Jr., A tale of two micelles: The analysis and simulation of a two-species scission/reforming model for wormlike micellar solutions
Zhu, Qinghua, Pricing exchange options with stochastic correlations

DISTRICT OF COLUMBIA
George Washington University (5)
Department of Mathematics
Coleman, Michael, Surface accuracy analysis and mathematical modeling of deployable large aperture elastic antenna reflectors
Einziger, Hillary, Incidence Hopf algebras: Antipodes, forest formulas, and noncrossing partitions
Fisher, Forest, CoZinbiel Hopf algebras in combinatorics
Lee, Jieun, Modeling the equilibrium configuration of a piecewise orthotropic pneumatic envelope and the phase separation problem in a membrane

Department of Statistics
Adeshiyan, Samson, Unification of randomized response designs and certain aspects of post-randomization for statistical disclosure control

Howard University (6)
Department of Mathematics
Gbade-Oyelakin, Adebukola, On Bayesian and hybrid inferences in statistics with application to the non-nested dispersive model for correlated binary outcomes
Nelson, Fredrick, A geometric approach to ratios of π/3-congruent numbers
Ofoedile, Chinenye, The enumeration of Dumont permutations with few occurrences of three and four letter patterns
Simon, Lois, Character sums and hyperelliptic curves associated with subsets of finite fields with square order
Wiley, Shari, Population dynamics of discrete-time predator-prey exploited fishery models
Williams, Kendall, Separating Milliken-Taylor systems and variations thereof in the dyadics and the Stone-Cech compactification of N

FLORIDA
Florida Atlantic University (6)
Department of Mathematical Sciences
Ay, Basak, Unique decomposition of direct sums of ideals
Illic, Ivana, The discrete logarithm problem in non-abelian groups
Matheis, Kenneth, An algebraic attack on block ciphers
Singh, Nidhi, On the minimal logarithmic signature conjecture
Singh, Nikhil, The existence of minimal logarithmic signatures for classical groups
Sullivan, Shaun, Multivariate finite operator calculus applied to counting ballot paths containing patterns

Florida Institute of Technology (5)
Department of Mathematical Sciences
Al-Mater, Najeeb, Random walk analysis in queues with multiple control and maintenance
Alghamdi, Abdullah, Multiple fluctuation analysis in a queue with an enhanced maintenance
Kounaris, Constantine, Statistical control of peer review cost
Motir, Ramy, Random walk processes in a bivel (M - N)-policy queue with multiple vacations
Saleem Alzahrani, Mohammed, Fluctuation analysis in a queue with (L,N)-policy and secondary maintenance

Florida State University (30)
Department of Mathematics
Acosta-Minoli, Cesar, Discontinuous Galerkin spectral element approximations on moving meshes for wave scattering from reflective moving boundaries
Bayazit, Dervis, Sensitivity analysis of options under Levy processes via Malliavin calculus
Cha, Yongjai, Closed form solutions of linear difference equations
Chen, Xia, 4-D Var data assimilation and POD model reduction methodologies applied to geophysical fluid dynamics models
Duffy, Austen, Massively parallel algorithms for CFD simulation and optimization on heterogeneous many-cove architectures
LePoudre, Philip, Computational aeroacoustics cascade model of fan noise
Liu, Xinyang, Shape spaces, metrics and their applications to brain anatomy
Mortada, Jamil, Artin and Delh twist subgroups of the mapping class group
Qi, Chunhong, Numerical optimization methods on Riemannian manifolds
Shen, Ji, No-reference natural image/video quality assessment of noisy, blurry, or compressed images/videos based on hybrid curvelet, wavelet and cosine transforms
Simakhina, Svetlana, Level set and conservative level set methods on dynamic quadrilateral grids

Tatar, Ahmet Emin, Picard 2-stacks and length 3 complexes of Abelian sheaves
Wang, Yaohong, Numerical methods for two-phase jet flow
Willyard, Matthew, Adaptive spectral element methods to price American options

Department of Statistics
Badshah, Muffasir, Analysis of the wealth distribution at equilibrium in a heterogeneous agent economy
Crane, Michael, Nonparametric estimation of three dimensional projective shapes with applications in medical imaging and in pattern recognition
Dutton, Matthew, Individual patient-level data meta-analysis: A comparison of methods for the diverse populations collaboration data set
Gu, Yu, New semiparametric methods for recurrent events data
Lawhern, Vernon, Statistical modeling and applications of neural spike trains
Li, Xiaoyun, Analysis of multivariate data with random cluster size
Li, Yan, The effect of risk factors on coronary heart disease: Age relevant multivariate meta analysis
Li, Zhi, Multistate intensity model with AR-GARCH random effect for corporate credit rating transition analysis
Olumide, Kunle, A probabilistic and graphical analysis of O. J. Simpson’s murder case using Bayesian networks
Tang, Ang, A class of mixed-distribution models with applications in financial data analysis
Wang, Wenting, Practical uses and methods for survival models
Wilshire, Jelani, Age effects in the extinction of Planktonic Foraminifera: A new look at Van Valen’s Red Queen hypothesis
Wu, Sutan, Goodness-of-fit tests for logistic regression
Yang, Fang, Bayesian generalized polychotomous response models and applications
Zhao, Feng, Bayesian portfolio optimization with time-varying factor models
Zhao, Haiyan, Time-varying coefficient models with ARMA-GARCH structures for longitudinal data analysis

University of Central Florida (2)
Department of Mathematics
Shao, Haimei, Price discovery in the U.S. bond market—trading strategies and the cost of liquidity
Smith, Todd Blanton, Variational embedded soliton, and traveling wavetrains generated by generalized Hopf bifurcations, in some NLPDE systems
University of Florida (8)
Department of Mathematics
Balasubramanian, Sriram, The non-commutative Carathéodory-Fejér problem
Harrington, Jason, Topological efficiency of stirring with obstacles
Sankarpersad, Ryan, Optimal investment and consumption portfolio choice problem for assets modeled by Levy processes
Smith, Aaron, Using Ulam’s method to test for mixing
Ye, Xiaojing, Mathematical models and fast numerical algorithms in medical imaging applications

Department of Statistics
Bhadra, Dhiman, Bayesian semiparametric regression and related applications
Buta, Eugenia, Computational approaches for empirical Bayes methods and Bayesian sensitivity analysis
Wang, Chenguang, Bayesian nonparametric and semi-parametric methods for incomplete longitudinal data

University of South Florida (3)
Department of Mathematics
Cong, Chunling, Statistical analysis and modeling of breast cancer and lung cancer
Karadayi, Enver, Topics in random knots and R-matrices from Frobenius algebras
Lundberg, Erik, Problems in classical potential theory with applications to mathematical physics

GEORGIA

Emory University (8)
Department of Biostatistics and Bioinformatics
Derado, Gordana, Methods for addressing spatial correlations in functional neuroimaging data
Wijayawardana, Sameera, Statistical methods for robust estimation of differential protein expression

Department of Mathematics and Computer Science
Amin, Kinnari, On Kt-saturated graphs
Black, Jodi, Zero cycles of degree one on principal homogeneous spaces
Chen, Feng, Field patching and Galois cohomology
Fan, Ying Wai, Practical image deblurring with synthetic boundary conditions, with GPUs, and with multiple frames
Hamilton, Steven, Numerical solution of the k-eigenvalue problem
Magnant, Zhongmin, Numerical methods for optimal experimental design of ill-posed problems

Georgia Institute of Technology (9)
School of Mathematics
Almada-Monter, Sergio A., Scaling limit for the diffusion exit problem
Howard, David, A study of discrepancy in partially ordered sets
Palmer, Ian, The Riemannian geometry of compact metric spaces
Reguera Rodríguez, María del Carmen, Sharp weighted estimates for singular integral operators
Stefansson, Ulfar, Asymptotic properties of Muntz orthogonal polynomials
Tinaztepe, Ramazan, Modulation spaces, BMO, Zak transform and minimizing IPH functions over the unit simplex
Vagharshakyan, Armen, Estimates for discrepancy and Calderon-Zygmund operators
Webb, Benjamin, Isospectral graph reductions, estimates of matrices’ spectra and negative Schwarzian systems
Yerger, Carl, Color-critical graphs on surfaces

Georgia State University (2)
Department of Mathematics and Statistics
Huang, Xin, Some topics in ROC curves analysis
Zhao, Meng, Treatment comparison in biomedical studies using survival function

University of Georgia (6)
Department of Mathematics
Arap, Maxim, Tautological rings of Prym varieties
Kong, Tim, Stochastic control and optimization of assets trading
Liu, Louis Yang, Non-convex optimization for linear system with pregaussian matrices and recovery from multiple measurements

Department of Statistics
Lee, Jaejun, $L_2E$ estimation for finite mixture of regression models with applications and $L_2E$ penalty and non-normal mixtures
Mandal, Taniya, Comparing statistically pooled brain maps in fMRI studies using parametric and non-parametric methods
Xu, Wei, Symbolic data analysis: Interval-valued data regression

HAWAII

University of Hawaii at Mano (2)
Department of Mathematics
Chasse, Matthew, Linear preservers and entire functions with restricted zero loci

Kent, Zachary, p-adic analysis and mock modular forms

IDAHO

Idaho State University (2)
Department of Mathematics
Klimas, Andrew, On certain classes of linear transformations on hermitian and positive semidefinite matrices
Kuhns, Chad, Helicoidal surfaces of constant anisotropic mean curvature

University of Idaho (1)
Department of Mathematics
Welhan, Manuel, Tree reconstruction, directed cycles and flow decompositions

ILLINOIS

Illinois Institute of Technology (3)
Department of Applied Mathematics
Ni, Ben, Monte Carlo simulation for infinite-dimensional integrals
Sun, Xu, Topics on interfacial dynamics and stochastic dynamics
Zhang, Zhao, Dynamic coherent acceptability indices and their applications in finance

Illinois State University (4)
Department of Mathematics
Duarte, Jonathan, The effects of an undergraduate algebra course on prospective teachers’ understanding of quadratic functions
Nillas, Leah, Pre-service teachers’ mathematical understanding: The role of discourse
Pulley, Cynthia, Using instruction to investigate the effect of assessing reasoning tasks on students’ understanding of proof
Webster Moore, Mary, Utilizing teachers’ knowledge of self as learner: AZ developmental model of teaching and learning in middle school number theory

Northern Illinois University (5)
Department of Mathematical Sciences
Cardwell, Matthew, On the value distribution and topology of classes of Dirichlet L-functions
Eggenberger, Joshua, Some problems in the spectral theory of separated Dirac operators
Terlyga, Olga, Analysis of one dimensional pulse combustion
Wang, Xiaofei, Nodal solutions of nonlinear boundary value problems with p-Laplacian
Yang, Yarong, Learning Bayesian networks from microarray gene expression data

Northwestern University (7)

DEPARTMENT OF ENGINEERING SCIENCE AND APPLIED MATHEMATICS

Christov, Ivan, From streamline jumping to strange eigenmodes and three-dimensional chaos: A tour of the mathematical aspects of granular mixing in rotating tumblers
Hibdon, Joseph, Effects of variable transport and diffusive-thermal instabilities on diffusion flames
Kublik, Richard A., Localized adaptive time stepping in numerical simulations for neuroscience
Schwalbe, Jonathan, Dynamics and stability of bilayer membranes in viscous flow and electric fields
Urdiales, Esteban, Thermal frontal polymerization with encapsulated reactants and spherically propagating waves

DEPARTMENT OF MATHEMATICS

Cheng, Chuangxun, Multiplicities of Galois representations in cohomology groups of Shimura curves
Stojanoska, Vesna, Duality for topological modular forms

Southern Illinois University, Carbondale (4)

DEPARTMENT OF MATHEMATICS

Anver, Haneef, Mean HELLinger distance as an error criterion in univariate and multivariate kernel density estimation
Arachchi-Appuhamilage, Darshana, Order restricted estimation and tests for fit in homogeneous row-column models
Roy, Sankhadip, Trace forms over finite fields of characteristic two
Santer-Barbosa, Flavia, Closing the memory gap in stochastic functional differential equations

University of Chicago (19)

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Bohmann, Anna Marie, Topics in equivariant stable homotopy theory
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Elgindi, Ali, On the topological structure of complex tangencies to embeddings of $S^3$ into $C^3$
Ganguly, Abhik, On the reduction modulo $p$ of certain modular Galois representations
Hadar, Asaf, Algebraic entropy of the mapping class group action on character varieties
Lind, John, The theory of diagram spaces with applications to stable homotopy theory and algebraic $K$-theory
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Riehl, Emily, Algebraic model structures
Shipman, Ian, A geometric approach to Orlov’s theorem
Wallace, Edward, Noise and synchrony in neural networks

DEPARTMENT OF STATISTICS

Finegold, Michael, Robust network inference with multivariate $t$-distributions
Huang, Alan, An exponential tilt approach to generalized linear models
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Wang, Wenlong, Wavelet analysis for nonstationary time series models

University of Illinois at Urbana-Champaign (33)

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Cooney, Thomas, Noncommutative $L_p$-spaces associated with locally compact quantum groups
Dennison, Melissa, A sequence related to the Stern sequence
Elliot, Jason, Central extensions of divisible groups
Fu, Yong, Quantum cohomology of a Hilbert scheme of a Hirzebruch surface
Green, William, Dispersive estimates for the Schrödinger equation
Grandmeier, Dusty, Group-invariant CR mappings
Gungor, Chadwick, Identities for Rogers-Ramanujan functions and analogues
Jaipong, Pradhana, Totally geodesic surfaces compress in arbitrary filings
Kantor, Ida, Graphs, codes, and colorings
Kelsey, Greg, Mega-bimodules of topological polynomials: Sub-hyperbolicity and Thurston obstructions
Kirov, Radoslav, Improved bound for codes and secret sharing schemes from algebraic curves
Koukoulopoulos, Dimitrios, Generalized and restricted multiplication tables of integers
Lee, Jung Jin, On $p$-operator space and its applications

Guan, Yun, Numerical homotopies for algebraic sets on a parallel computer
Hu, Fanzhu, Options pricing—application of ray methods and singular perturbations
Liang, Qian, Novel metrics for software artifact recovery and genome space construction
Nkengla, Mechit, Low rank approximations for matrices and tensors
Nogami, Junpei, On derived Calabi-Yau varieties
Robertson, Marcy, Derived Morita theory of enriched symmetric multicategories
St. John, David, Technical analysis based on moving average convergence and divergence
Ye, Fei, Topology of moduli spaces and complements of hyperplane arrangements
Zhang, Cuilan, Optimal allocation in response driven adaptive design
Zhao, Bo, Two methods of analyse DNA sequences: Predicting coding regions and clustering homologous DNA
Zhen, Qiang, The sojourn time distribution in processor-sharing queues
Zhou, Ying, $D$-optimal designs for complex nonlinear models in chemical kinetics, PK/PD, and environmental science

NOTICES OF THE AMS
Lenz, John, Extremal graph theory: Ramsey-Turan numbers, chromatic thresholds, and minors
Lin, Xiong, Hilbert transform and its application in financial engineering
Lipsky, David, Cyclic constructions for topological field theories
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Saran, Maya, Some results on $G_3$ ideals of compact sets
Seo, Jeethyeon, A characterization of bi-Lipschitz embeddable metric spaces in terms of local bi-Lipschitz embeddability
Solie, Brent, Algorithmic and statistical properties of filling elements of a free group, and quantitative residual properties of $\Gamma$-limit groups
Wenger, Paul, Three existence problems in extremal graph theory

**INDIANA**

**Indiana University-Purdue University Indianapolis** (1)

**DEPARTMENT OF MATHEMATICAL SCIENCES**

Lechty, Karl, Exact solutions to the six-vertex model with domain wall boundary conditions and uniform asymptotics of discrete orthogonal polynomials on an infinite lattice

**Purdue University** (20)

**DEPARTMENT OF MATHEMATICS**

Brytik, Valery, Elastic-wave reverse-time migration and tomography: A multiscale approach
Driskell, Lisa, Existence and stability of traveling wave solutions in a simplified model of cardiac tissue
Hackney, Phillip, Homology operations in the spectral sequence of a cosimplicial space
Ho, Pak Tung, Results on geometric flow
Lin, Kuei-Nuan, Rees algebra of diagonal ideals
Nahm, Sangil, Several problems in number theory
O'Malley, Daniel, Diffusive processes run with non-linear clocks
Rubiano, Andrea, Coupled energetic models for nematic elastomers
Tsai, Ting-Li, Diffusive processes run with non-linear clocks
Wan, Fang, Asymptotic analysis and numerical simulation of traveling wave solutions for crystal growth with corner regularization
Yang, Yiding, Students of dynamics of infectious diseases using mathematical models

**DEPARTMENT OF STATISTICS**

Fan, Zhenwen, Statistical issues and developments in time series analysis and educational measurement
Feng, Yang, Bayesian quantile linear regression
He, Zhi, Semiparametric inference
Hsu, Ya-Hui, Applications of quantile regression to estimation and detection of some tail characteristics
Kim, JiYoung, Robust methods for analyzing multivariate responses with application to time-course data
Xia, Jing, Statistical methods for fMRI data analysis
Xu, Jianfeng, Bayesian latent class models
Yang, Ji Yeon, Statistical modeling of protein lysate array data

**INDIANA**

**Indiana University, Bloomington** (8)

**DEPARTMENT OF MATHEMATICS**

Chai, Juanjuan, Mathematical and statistical problems in phylogenetics and genetics
Du, Yu, Dynamic transition for Kuramoto-Sivashinsky equation and gas-liquid transition
Gie, Gung-Min, Analysis of some singular perturbation problems and analysis of the finite problem method
Kim, Jiho, Higher-order algebras and coalgebras
Kim, Junghwa, On the behavior of a superconducting wire subjected to a constant voltage difference
Manack, Corey, Word maps, character estimates, and random walks on compact simple Lie groups
Mester, Peter, Examples of invariant processes on Cayley graphs
Qin, Zhen, Analysis and computation of corner singularities for some equations

**DEPARTMENT OF STATISTICS**

Achberger, Tilman, Selecting subsets of traits for quantitative trait loci analysis
Auer, Paul, Statistical design and analysis of next-generation sequencing data
Gupta, Saptarshi, Computing environment for the statistical analysis of large and complex data
Lewandowski, Andrew, Population Monte Carlo methods with applications in Bayesian statistics
Mi, Yanhui, Building statistical models for financial asset returns: New stochastic volatility models
Obbracht, Gayla, Incorporating genome annotation in the statistical analysis of genomic and epigenomic tiling array data
Rau, Andrea, Reverse engineering gene networks using genomic time-course data
Zhang, Jianchun, Statistical inference with weak beliefs
Zheng, Cheng, Model-based identification and quantification of metabolites in $^1H$ NMR spectra

**University of Notre Dame** (4)

**DEPARTMENT OF MATHEMATICS**

Gejji, Richard, Using continuous limit techniques and stochastic computational modeling to predict the biological behavior of aggregating cells
Holliman, Curtis, Continuity properties of the data-to-solution map for the Hunter-Saxton equation
Korovnichenko, Olena, Generalizations of three-term relations in solvable models of mathematical physics
Sunyeekhan, Gun, Equivariant intersection theory

**IOWA**

**Iowa State University** (28)

**DEPARTMENT OF MATHEMATICS**

Cheng, Yi-Lin, On Hopf algebras of dimension $4p$
Choi, JiHyek, Problems in graph theory and probability
Kleiman, Elizabeth, High performance computing techniques for attacking reduced version of AES using XL and XSL methods
Komogiannis, Dimitris, Homogenization problems in random media
Manske, Jacob, Coloring and extremal problems in random media
Miranda-Mendoza, Fernando, An option-theoretic valuation model for residential mortgages with stochastic conditions and discount factors
Row, Darren, Zero forcing number: Results for computation and comparison with other graph parameters
Seo, Yeon-Jung, A mathematical analysis of multiple-target SELEX
Sit, Atilla, Solving distance geometry problems for protein structure determination
Stanton, Brendon, On vertex identifying codes for infinite lattices
Zhon, Wen, Mathematical modeling of MHC Class II immune response in tissues

**DEPARTMENT OF STATISTICS**

Berg, Emily, A small area procedure for estimating population counts
Beyler, Nicholas, Statistical methods for analyzing physical activity data
Cai, Weigu, Quantitative genetic and statistical aspects of feed efficiency by analysis of the selection experiment for residual feed intake in Yorkshire pigs
Gardner, Stuart, Investigation of intergenic regions of Mycoplasma hyopneumoniae and development of statistical methods for analyzing small-scale RT-qPCR assays

Kientoff, Cherie, Development of weighted model fit indexes for structural equation models using multiple imputation

Li, Ming, New methods for statistical modeling and analysis of nondestructive evaluation data

Liang, Kun, Hidden Markov models for simultaneous testing of multiple gene sets and adaptive and dynamic adaptive procedures for false discovery rate control and estimation

Mueller, Kim, Construction and behavior of multinomial Markov random field models

Peterson, Anna, A separability index for clustering and classification problems with applications to cluster merging and systematic evaluation of clustering algorithms

Pintar, Adam, Model selection for good estimation or prediction over a user-specified covariate distribution

Qu, Long, Improving statistical inference for gene expression profiling data by borrowing information

Rajaram, Misha, Detecting recombination and its association with genomic features via statistical models

Shi, Ying, Contributions to accelerated destructive degradation test planning

Sun, Xiaoyong, Diagnostics for nonlinear models with application to population pharmacokinetic modeling

Weaver, Brian, Methods for planning repeated measures degradation tests

Zhang, Jingsheng, A 3D model retrieval system: Shape matching, database and query interface

Zhou, Ming, Some goodness-of-fit tests and efficient estimation in longitudinal surveys under missing data

University of Iowa (23)

Department of Applied Mathematical and Computational Sciences

Deng, Junjun, Parallel computing techniques for computed tomography

Galluzzo, Benjamin, A finite-difference based approach to solving the subsurface fluid flow equation in heterogeneous media

Moon, Hyeyoung, Calculating knot distances and solving tangle equations involving Montesinos links

Schmidt, Stephanie, Mathematical models of ion transport through nafion membranes in modified electrodes and fuel cells without the electroneutrality assumption

Small, Scott, Runge-Kutta type methods for differential-algebraic equations in mechanics

Van Laarhoven, Jon, Exact and heuristic algorithms for the Euclidean Steiner tree problem

Wu, Yuan, The partially monotone tensor spline estimation of joint distribution function with bivariate current status data

Department of Biostatistics

Chang, Yu-Hui H., Adaptive designs for dose response studies

Liu, Li, Grouped variable selection in high-dimensional partially linear additive Cox model

Department of Mathematics

Correa, Alvaro, Bifurcation theory for a class of second order differential equations

Drube, Paul, TQFT diffeomorphism invariants and skein models

Hager, Amanda, Freeness of hyperplane arrangement bundles and local homology of arrangement complements

Hager, William, Critical knots for minimum distance energy and complementary domains of arrangements of hypersurfaces

Lai, Mijia, Fully nonlinear flows and Hessian equations on compact Kähler manifolds

Mbirika, Abukuse, Analysis of symmetric function ideals: Towards a combinatorial description of the cohomology ring of Hessenberg varieties

McDougall, Adam, Relating Khovanov homology to a diagramless homology

Mckinney, Colin, Conjugate diameters; Apollonius of Perga and Eutocius of Ascalon

Meyer, Jonas, Noncommutative Hardy algebras, multipliers, and quotients

Tian, Feng, On commutativity of unbounded operators in Hilbert space

Um, Ko, Woob, Elliptic equations with singular BMO coefficients in Reifenberg domains

Velez Marulanda, Jose, Universal deformation rings of modules over self-injective algebras

Yoo, Seonguk, Extreme sextic truncated moment problems

Department of Statistics and Actuarial Science

Zhang, Tianyang, Partly parametric generalized additive model

KANSAS

Kansas State University (8)

Department of Mathematics

Bhandari, Mukta, Inequalities associated to Riesz potentials and non-doubling measures

Indratno, Sapt, Numerical methods for solving linear ill-posed problems

Lyubinin, Anton, Modules and comodules over monochimedian Hopf algebras

Manspeaker, Rachael, Using data mining to differentiate instruction in college algebra

Shrestha, Tej, A deformation of k-linear monoidal category

Westmoreland, Shawn, Optical black holes and solitons

Department of Statistics

Poulson, Robert, Treatment heterogeneity and individual qualitative interaction

Tolos, Siti, Nonparametric tests to detect relationship between variables in the presence of heteroscedastic treatment effects

University of Kansas (6)

Department of Mathematics

Demirkaya, Asilhan, Long-time behavior and the stability of special solutions of nonlinear partial differential equations

Humpert, Brandon, Polynomials associated with graph colorings and orientations

McNeill, Daniel, Properties of H-sets, Katetov spaces, and H-closed extensions with countable remainder

Song, Xiaoming, Backward stochastic differential equations and stochastic differential equations driven by fractional Brownian motion and their numerical solutions

Ward, Erika, New estimates in harmonic analysis for mixed Lebesgue spaces

Zachariou, Yiannis, Identification and adaptive control methods for some stochastic systems

Wichita State University (2)

Department of Mathematics and Statistics

Aralumallige Subbarayappa, Deepak, Stability of continuation, numerical experiments and obstacle problems in acoustic and electromagnetic scattering

Kim, Nanth, Carleman estimates for the general second order operators and applications to inverse problems

KENTUCKY

University of Kentucky (8)

Department of Mathematics

Clark, Eric, Combinatorial aspects of exceedances and the Frobenius complex

Dibayajoti, Deb, Diagonal forms and the rationality of the Poincaré series

Stell, Laura, Isometry classes of quadratic forms defined over p-adic rings

Taylor, Justin, Convergence of eigenvalues for elliptic systems on domains with thin tubes and the Green function for the mixed problem

Wells, Daniel, General flips and the cd-index

Zeckner, Matthew, Topological and combinatorial properties of neighborhood and chessboard complexes
Hu, Yanling, Some contributions to the censored empirical likelihood with hazard-type constraints
Xu, Liou, Markov transition models with death as a competing event

University of Louisville (3)

Department of Mathematics

Lorenz, Douglas, Marginal nonparametric inference for waiting times in multi-stage models: Hypothesis testing and regression
Tang, Guoxin, Data mining and analysis of lung cancer data
Wang, Xiao, Statistical analysis of data mining of medical patients with diabetes

Louisiana State University, Baton Rouge (9)

Department of Mathematics

Barnard, Richard, Hamilton-Jacobi theory for optimal control problems on stratified domains
Childers, Leah, Subgroups of the Torelli group
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Cui, Jintao, Multigrid methods for Maxwell's equations
Calbertson, Jared, Perverse Poisson sheaves on the nilpotent cone
Jimenez, Silvia, Homogenization of non-linear partial differential equations
Li, Qingxia, Optimal control and nonlinear programming
Tripathi, Girja, Orthogonal Grassmannians and Hermitian K-theory in A₁, homotopy theory of schemes
Zemlyanova, Anna, Method of Riemann surfaces in modeling of cavitating flow

Tulane University (6)

Department of Biostatistics and Bioinformatics

Dornelles, Adriana, Built environment and obesity risk factors: Do where you live, work and commute influence your weight status? A spatial analysis of elementary school personnel in New Orleans, LA
Sidell, Margo, A comparison of analysis for two group small samples with a large number of measures
Zhou, Yi, Marginal regression analysis of longitudinal data with time-dependent covariates: Extended quadratic inference function and extended adaptive estimating equations

Department of Mathematics

Corbin, Patrick, Tangential stabilization of spherical spaceforms
Feng, Johnny, Domain theoretic structures in quantum information theory
Lukens, Sarah, Using Lagrangian methods to analyze flow structures in biological fluid dynamics

University of Louisiana at Lafayette (4)

Department of Mathematics

Chowdhury, Abhinandan, Modeling the microstructure of the temperature field and the effective properties of heat conduction through polydisperse spherical suspensions
Dong, Zhihua, Global solvability and blow-up for parabolic equations with nonlinear memory
Lian, Xiaodong, Tolerance intervals for linear models
Vakarianis, Anne, Preserving properties in extensions to rings with identity

Maryland (13)

Johns Hopkins University

Department of Applied Mathematics and Statistics

Arrate Donoso, Luis Felipe, Evolution equations on the group of diffeomorphisms with applications in computational anatomy
Cardinal-Stakenas, Adam, Choosing a dissimilarity representation for classification
Ma, Zhiliang, Disparate information fusion in the dissimilarity framework
Yang, Ting, The effect of model misspecification on semi-supervised classification

Department of Biostatistics

Boca, Simina, Interpretable set analysis for high-dimensional data
Carone, Marco, Statistical analysis of cross-sectional survival data with applications to the study of dementia
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Swihart, Bruce, From individuals to populations: Application and insights concerning the generalized linear mixed model

Department of Mathematics

Cutrone, Joseph, Symmetric Sarkisov links of Fano threefolds
Limarzi, Michael, On a cohomological study of Heisenberg groups over the ring of algebraic integers
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University of Maryland, Baltimore County (8)

Department of Mathematics and Statistics

Alexanderian, Alen, Random composite media: Homogenization, modeling, simulation and material symmetry
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Huang, Hui, Testing equality of latent functional features across groups
Petrà, Hoemì, Mathematical modeling, analysis, and simulation of trace gas sensors
Sharma, Gaurav, Higher order asymptotics: Applications to mixed models and bioassay
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University of Maryland, College Park (24)

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Au-Young, Enrico, Balayage of Fourier transforms and the theory of frames
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Flake, Justin, The multiplicative Zak transform, dimension reduction, and wavelet analysis of LIDAR data
Galante, Joseph, Cometary escape in the restricted circular planar three body problem
Glover, Charles, Computationally, tractable stochastic integer programming models for air traffic flow management
Gonzalez-Tokman, Cecilia, Quantitative aspects of the stability of some dynamical systems
Guingona, Vincent, On definability of types in dependent theories
Gułczyński, Damion, Integer programming-based heuristics for vehicle routing problems
Haley, Avner, Extensions of Laplacian eigenmaps for manifold learning
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Li, Ziliang, Minimum disparity estimator for continuous time stochastic volatility models

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Yu, Xin, Strichartz estimates and Strauss conjecture on various settings
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Penny, Stephen, Data assimilation of the global ocean
Ray-Dulany, Walter, Base change for the Iwahori-Hecke algebra of $GL_2$
Strawn, Nathaniel, Geometric structures and optimization on spaces of finite frames
Subramanian, Poorani, Detecting and correcting errors in genome assemblies
Sur, Ritajana, Statistical analysis of eye gaze data
Tang, Min, Goodness-of-fit tests for generalized linear models
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Tomasetti, Cristian, Mathematical modeling of drug resistance and cancer stem cells dynamics

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Boston University (4)

DEPARTMENT OF MATHEMATICS AND STATISTICS
Hedinsson, Baldur, Inhibitory cell interactions
Kim, Myoungil, Projectivity and Selmer groups in the non-ordinary case
Veillette, Mark, Study of Gaussian processes, Lévy processes and infinitely divisible distributions
Yang, Shu, Analysis of network type data using statistical methods

Boston University School of Public Health (5)

DEPARTMENT OF BIOSTATISTICS
Isakov, Leah, Analysis of clinical trials with delayed treatment effects
Manning, Alisa, Statistical advances in gene by gene interaction and gene by environment interaction in the era of genome-wide association studies
Pedley, Alison, Applying survival analysis techniques to interim analysis and sample size reassessment of clinical trials with a dichotomous endpoint
Peloso, Gina, Population structure in genetic association studies: Genetic principal component adjustment and the use of family data
Solovieff, Nadia, Clustering by genetic ancestry using genome-wide single nucleotide polymorphisms and incorporating genetic ancestry into genetic risk prediction models

Brandeis University (1)

DEPARTMENT OF MATHEMATICS
Kim, Jong Hyun, Hadamard products, lattice paths and skew tableaux

Harvard University (11)

DEPARTMENT OF MATHEMATICS
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Goldring, Wushi, Galois representations associated to holomorphic limits of discrete series
Kane, Daniel, On elliptic curves, the ABC conjecture, and polynomial threshold functions
Li, Si, Calabi-Yau geometry and higher genus mirror symmetry
Panova, Greta, Combinatorial applications of symmetric function theory to certain classes of permutations and truncated tableaux
Reich, Ryan, Twisted geometric Satake equivalence via gerbes on the factorizable Grassmannian
Roe, David, The local Langlands correspondence for tamely ramified groups
Song, Ruifang, The Pickard-Fuchs systems of Calabi-Yau complete intersections in homogeneous spaces
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Harvard University, School of Public Health (9)

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Izu, Alane, Bayesian methods for modeling branching tree processes with application to drug resistant tuberculosis
Lipman, Peter, Novel methodologies in statistical genetics for the discovery of causal variants
Nobary, Farzad, Statistical methods for evaluating novel CD4 enumeration technologies
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Massachusetts Institute of Technology (34)

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Andrade, Ricardo, From manifolds to invariants of $E_8$-algebras
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Bidkhori, Hoda, Classification and enumeration of special classes of posets and polytopes
Brown, Tova, Bordered Heegaard Floer homology and four-manifolds with corners
Buchak, Peter, Flow-induced oscillation of flexible bodies
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Chindelevitch, Leonid, Extracting information from biological networks
Croitoru, Dorian, Mixed volumes of hypersimplices, root systems and shifted Young tableaux
Desjardins, Craig, Monomization of power ideals and parking functions
Dodd, Christopher, Equivariant coherent sheaves, Soergel bimodules, and categorification of affine Hecke algebras
Harris, Benjamin, Fourier transforms of nilpotent orbits, limit formulas for reductive Lie groups, and wave front cycles of tempered representations
Jordan, David, Quantization of multiplicative quiver varieties and actions of higher genus braid groups
Lennon, Catherine, Arithmetic and analytic properties of finite field hypergeometric functions
Lu, Wenzhe, Instanton correction, wall crossing and mirror symmetry of Hitchin’s moduli spaces
Ma, Xiaoguang, On trigonometric and elliptic Cherednik algebras
Manapat, Michael, Critical phenomena in evolutionary dynamics
Mares, Bernard, Some analytic aspects of Vafa-Witten twisted $N = 4$ supersymmetric Yang-Mills theory
Mukamel, Ronen, Orbifold points on Teichmüller curves and Jacobians with complex multiplication
Nguyen, Timothy, The Seiberg-Witten equations on manifolds with boundary
Pascaleff, James T., Floer cohomology in the mirror of the projective plane and a binodal cubic curve
Rozenblyum, Nikita, Connections on conformal blocks
Schnall-Levin, Michael, RNA: Algorithms, evolution and design
Shin, Jinwoo, Efficient distributed medium access algorithm
Shvek, Steven, Bordered Legendrian knots and sutured Legendrian invariants
Slavov, Kaloyan, The moduli space of hypersurfaces whose singular locus has high dimension
Sohinger, Vedran, Bounds on the growth of high Sobolev norms of solutions to nonlinear Schrödinger equations
Soto, Jose, Contributions on secretary problems, independent sets of rectangles and related problems
Stoica, Emanuel, Unitary representations of rational Cherednik algebras and Hecke algebras
Tabony, Sawyer, Deformations of characters, metaplectic Whittaker functions, and the Yang-Baxter equations
Varia, Mayank, Studies in program obfuscation
Wang, Lu, Self-shrinkers of mean curvature flow and harmonic map heat flow with rough boundary data
Wong, Yee Lok, High-performance computing with PetaBricks and Julia
Yoo, Hwanchul, Combinatorics in Schubert varieties and Specht modules

Northeastern University (1)
Department of Mathematics
Mixer, Mark, Transitivity of graphs associated with highly symmetric polytopes

Tufts University (3)
Department of Mathematics
Brown, Aaron, Rigid measures on the torus
Goldstein, Ellen, Nilpotent orbits in the symplectic and orthogonal groups
Kobayashi, Kei, Time-changed stochastic processes and associated fractional order partial differential equations

University of Massachusetts, Amherst (5)
Department of Mathematics and Statistics
Boland, Patrick, Geometry of Satake and toroidal compactifications
Chen, Geng, Strong wave interactions, exact solutions and formation of singularities for the compressible Euler equations
Gagnon, Jacob, A hierarchical spherical radial quadrature algorithm for multilevel GLMMS, GSMMs, and gene pathway analysis
Wang, Chenyu, Double-well potentials in Bose-Einstein condensates

Department of Public Health
Zhang, Ruitao, Developing best linear unbiased estimator in finite population accounting for measurement error due to interviewer

Worcester Polytechnic Institute (1)
Department of Mathematical Sciences
Evans, Emily, Extension operators and finite elements for fractal boundary value problems

MICHIGAN
Central Michigan University (4)
Department of Mathematics
Al-Rawashdeh, Walied, Weighted composition operators on weighted Hardy and Bergman spaces
Almohalwas, Akram, Nonparametric classification techniques applied to gene expression data
AlQudah, Mohammad, The local Lipschitz constant in vector valued approximation
Franze, Craig, A lower bound sieve method with applications

Michigan State University (15)
Department of Mathematics
Bond, Matthew, Combinatorial and Fourier analytic L^2 methods for Buffon's needle problem
Chen, Duan, Multiscale modeling and computation of nano-electronic transistors and transmembrane proton channels
Choi, Kwangho, Long-time convergence of harmonic map heat flows from surfaces into Riemannian manifolds
Cooper, Andrew, Mean curvature flow in high codimension
Efe, Baris, Calabi-Yau submanifolds of Joyce manifolds of the first kind
Morton, Maureen, Integral deferred correction methods for scientific computing
O'Toole, Matthew, Models of axonal elongation and transport
Sunukjian, Nathan, Group actions, cobordisms, and other aspects of 4-manifold topology through the eyes of Floer homology
Xiong, Tingyao, Construction of binary sequences of even length with high asymptotic merit factor
Yildiz, Izzet, Topological entropy of the Lozi family

Department of Statistics and Probability
Bhan, Chandni, Asymptotic properties of spot rate models and their control
Li, Gengxin, Variance components model in mapping imprinted genes: Statistical theory and applications
Ren, Hao, Some new models for small area estimation

Song, Qiongxia, Application of simultaneous confidence bands in statistical inference for heteroscedastic, high dimensional and functional data
Tang, Xiaojin, Modeling hospital length of stay and cost with heterogeneity

Michigan Technological University (1)
Department of Mathematical Sciences
Ni, Adan, Statistical methods for identifying gene-gene interactions

University of Michigan (29)
Department of Mathematics
Block, Florian, Plane curves, node polynomials, and floor diagrams
Boateng, Henry, Dynamic simulations
Fei, Jiarrui, General presentations of algebras
Ferguson, Timothy, External problems in Bergman spaces
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Jurgelewicz, Brian, McKay's correspondence for Klein's quartic curve
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Kublik, Catherine, Topics in PDE-based image processing
Lozoveantu, Victor, Invariants in algebraic geometry
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Ormsby, Kyle, Computations in stable motivic homotopy theory
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Rupprecht, Nicholas, Effective correspondents to cardinal characteristics in Cichon's diagram
Serrano, Luis, Non-commutative Schur P-functions and the shifted plactic monoid
Sun, Xinyun, CM lifting of Albelian varieties
Talaska, Kelli, Positivity in real Grassmannians: Combinatorial formulas
Wang, Lei, Radial basis functions and vortex methods and their application to vortex dynamics on a rotating sphere
Wyman, Brian, Polynomial decomposition over rings
Xu, Zhengjie, Asymptotic analysis and numerical analysis of the Benjamin-Ono equation
Young, Hsu-Wen, Components of algebraic sets of commuting and nearly-commuting N-tuples of matrices
Zeager, Crystal, The Azukawa metric and the pluricomplex Green function
Department of Statistics

Bhadra, Anindya, Time series analysis for nonlinear dynamical systems with applications to modeling of infectious diseases
Goldstick, Jason, Contributions to modeling the dynamic association structure in longitudinal data sets
Laber, Eric, Adaptive confidence intervals for non-smooth functionals
Qian, Min, Model selection and $l_1$ penalization for individualized treatment rules
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Shojiae, Ali, Estimation and inference in high dimensional networks with applications to biological systems

Wayne State University (5)

Department of Mathematics

Dassanayaka, Samarathunga, Methods of variational analysis in pessimistic bilevel programming
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Nguyen Thi, Yen Nhi, Variational analysis in parametric optimization

Western Michigan University (3)

Department of Mathematics

Bickle, Allan, The K-cores of a graph
Jones, Ryan, Modular and graceful edge colorings
Kolasinski, Kyle, Hamiltonicity and connectivity in distance-colored graphs

MINNESOTA

University of Minnesota-Twin Cities (24)

Division of Biostatistics, School of Public Health

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Salkowski, Nicholas, Approaches to handling time-varying covariates in survival models

School of Mathematics

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Huang, Hisin-Yuan, Variational methods and the orbits with collisions in the N-body problem

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Lei, Zhang, Automorphic forms on certain affine symmetric spaces
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Micek, Catherine, Volume transitions in gels with biomedical applications: Mechanics and electrodiffusion
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Taipale, Kaisa, Quantum cohomologies and the abelian-nonabelian correspondence
Tsai, Ya-Lun, Real root counting for parametric polynomial systems and applications

School of Statistics

Chen, Xin, Coordinate independent sparse sufficient dimension reduction and variable selection
Choi, Jang Hoon, A penalized maximum likelihood to sparse factor analysis
Holland, Mark, A nonparametric change point model for multivariate phase-II statistical process control
Lee, Kuo-Jung, Application of the spatial Bayesian variable selection to fMRI time-series data
Li, Wei, Some charting methodologies in multivariate statistical process control
Li, Wei, Distinguishing between parametric and nonparametric regression scenarios with a consistent model selection procedure
Okabayashi, Saisuke, Parameter estimation in social network models
Wei, Xiaoaqiao, Robust adaptive regression by mixing with model screening

University of Southern Mississippi (1)

Department of Mathematics

Yao, Guangming, Local radial basis function methods for solving partial differential equations

MISSOURI

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Department of Mathematics and Computer Science

Bussman, Christine, Commutator conditions in normal closures of Engel groups

University of Missouri-Columbia (11)

Department of Mathematics

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Nevans, Christopher, On the theory of integer sequences
Senger, Steven, Explorations of the Erdos-Falconer distance problem and related applications

Department of Statistics

Gao, Xiaoming, Bayesian spatial models for adjusting nonresponse in small area estimation
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Zhang, Xinyan, Regression analysis of clustered interval-censored failure time data with informative cluster size

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Department of Mathematics

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Huarg, Xiao, Using Dirichlet process priors for Bayesian mixture clustering
Li, Qing, On Bayesian regression regularization methods
Min, Baili, The boundary behavior of holomorphic functions
Womack, Andrew, Predictive alternatives in Bayesian model selection
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Stevens Institute of Technology (2)

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Kenani Ncheugquim, Emmanuel, Option pricing with transaction costs and stochastic volatility

University of New Mexico (6)

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Nosedal-Sanchez, Alvaro, Adaptive weighting for flexible estimation in nonparametric regression models
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Warr, Richard, Generalizations of the statistical flowgraph model framework

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Binghamton University, State University of New York (5)

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DEPARTMENT OF BIOSTATISTICS
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DEPARTMENT OF MATHEMATICS
Bloom, Jonathan, Monopole Floer homology, link surgery, and odd Khovanov homology
Brichard, Joelle, On using graphical calculi: Centers, zeroth Hochschild homology and possible compositions of induction and restriction functors in various diagrammatical algebras
Elias, Benjamin, Soergel diagrams for dihedral groups
Gilmore, Allison, Knot Floer homology and categorification
Lee, Min, Approximate converse theorem
Levy, Alon, Moduli spaces of dynamical systems on $P^N$
Lu, Qing, Bounds for the spectral mean value of central values of $L$-functions
Piechnik, Lindsay, Lattice subdivisions and tropical matroids featuring products of simplices
Wu, Chenyan, F-virtual Abelian varieties of $GL_2$-type and Rallis inner product formula
Zarev, Rumen, Bordered sutured Floer homology

DEPARTMENT OF STATISTICS
Fellouris, Georgios, Decentralized sequential decision making with asynchronous communication
Huang, Chia-Hui, Semiparametric stochastic modeling for epidemic data
Li, Qinghua, Two approaches to non-zero-sum stochastic differential games of control and stopping
McCormick, Tyler, Statistical methods for indirectly observed network data
Moussa, Amal, Contagion and systemic risk in financial networks
Ruf, Johannes, Optimal trading strategies under arbitrage
Wu, Xiaoru, Some nonparametric methods for clinical trials and high dimensional data
Yau, Chun Yip, Change-point and inference problems in time series
Zhou, Shouhao, Bayesian model selection in terms of Kullback-Leibler discrepancy
Cornell University (19)

CENTER FOR APPLIED MATHEMATICS

Can, Sami, Some convergence results on stable infinite moving average processes and stable self-similar processes
Marvel, Seth, Simple mathematical models of social behavior
Nguyen, Thanh, Revenue in resource allocation games and applications

DEPARTMENT OF MATHEMATICS

Bailleul, Mihai, The heat equation under the Ricci flow
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Goldberg, Timothy, Hamiltonian actions in integral Kähler and generalized complex geometry
Kolins, Samuel, F-vectors of subdivision of balls
Leung, Ho Hon, K-theory of weight varieties and divided difference operators in equivariant K-theory
Lundell, Benjamin, Selmer groups and ranks of Hecke rings
Muller, Gregory, The projective geometry of differential operators
Noonan, Matthew, Geometric Backlund transformations in homogeneous spaces
Palsson, Eyvindur, \( L^p \) estimates for a singular integral operator motivated by Calderón’s second commutator
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Tasena, Santi, Heat kernel analysis on weighted Dirichlet spaces

DEPARTMENT OF STATISTICS

Clement, David, Estimating equation methods for longitudinal and survival data
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Schifano, Elizabeth, Topics in penalized estimation

Graduate Center, City University of New York (11)

PhD PROGRAM IN MATHEMATICS

Artamoshin, Sergei, Geometric interpretation of the two-dimensional Poisson kernel and its applications
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New York University, Courant Institute (17)

COURANT INSTITUTE OF MATHEMATICAL SCIENCES

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Shen, Dian, Nonlinear, non-autonomous auto-regressive analysis of time series
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Zhang, Qi, Equilibrium free energy calculations in nonequilibrium settings

Polytechnic Institute of New York University (1)

DEPARTMENT OF MATHEMATICS

Puleri, Dorian, Elliptic Brunn-Minkowski theory: Duality and applications

Rensselaer Polytechnic Institute (9)

DEPARTMENT OF MATHEMATICAL SCIENCES

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Baydil, Bana, Parametrization of enhanced transport in meso-scale oceanic turbulence through non-Gaussian stochastic flow models
Kaczkowski, Stephen, Applications of modal approximations to attenuation properties in sandy-silty sediments
Metzler, Adam, High capability parabolic equations for elastic media propagation
Moore, Gregory, Bilevel programming algorithms for machine learning model selection
Ozlem, Melih, A numerical study of shock induced cavity collapse
Rogers, Lisa, Mathematical models of the human sleep wake system
Sanchez, Oswaldo, Emergence of hierarchy in networks
Zheglova, Polina, Imaging quasi-rectangular geological faults with earthquake data

State University of New York at Buffalo (6)

DEPARTMENT OF BIOSTATISTICS

Tekwe, Carmen, Generalized multiple-indicator, multiple-cause measurement error models
Wang, Dongliang, Analytic bootstrap and kernel based methods with applications

DEPARTMENT OF MATHEMATICS

Ahmed, Saleem, Behavior of a one-dimensional flux-limited nonlinear diffusion equation and finite speed of propagation
Bell, Jocelyn, The uniform box product problem
Irsalowitz, Joshua, Size estimates of Toeplitz and Hankel operators on the Bergman and Fock space
Schneider, Gregory, On the classification of Legendrian rational tangles via characteristic foliations of compressing discs

State University of New York at Stony Brook (28)

DEPARTMENT OF APPLIED MATHEMATICS AND STATISTICS

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Zhang, Hui, Distribution-free models for latent population mixtures

**DEPARTMENT OF MATHEMATICS**

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Jin, Tao, On $1_A^n$ and derivations of free Lie algebras
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Mayrink, Vinicius, Factor models to describe linear and non-linear structure in high dimensional gene expression data
Mukherjee, Chiranjit, Bayesian modelling and computation in dynamic and spatial systems
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Arai, Mamiko, Investigation of different input noise types in linear and nonlinear stochastic neural models
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Valdez-Jasso, Zibonile, Aggregated wavelet estimation with applications
Yu, Xian, Sequential change-point analysis of Markov chains with application to fast detection of epidemic trends
Zhong, Yi, Optimization of error spending and power spending in sequentially planned statistical experiments

University of Texas-School of Public Health (5)
DIVISION OF BIOSTATISTICS
Liang, Shang-Ying, A novel method for evaluating an interaction effect of correlated continuous covariates in a linear model
Luo, Li, Functional data analysis approaches for genotype-phenotype association studies from next-generation sequencing
Waltz, Elizabeth, Performance tiers: Implementing comparative effectiveness analysis in the health care setting through operations research and spatial methods
Xu, Yajii, Genome-wide algorithm for detecting CNV associations with diseases
Xu, Miu, Bayesian and survival model for tumor relapse status and disease-specific survival, with applications to breast cancer

UTAH
 Brigham Young University (3)
DEPARTMENT OF MATHEMATICS
Hansen, Brian, Explicit computations supporting a generalization of Serre’s conjecture
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Meilstrup, Mark, Wild low dimensional topology and dynamics

University of Utah (14)
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Chan, Julian, Questions on local cohomology and tight closure theory
Davis, Courtney, Mathematical models of memory T-cell compartment size and repertoire dynamics
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Johnson, Casey, Enhanced nilpotent representations of a cyclic quiver
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Shu, Shang-Yuan, Probability on discrete structure
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Thompson, Joshua, Real Schottky complex projective structures
Trahan, Benjamin, Lefschetz functors for the metaplectic group and graded affine Hecke algebras

Utah State University (1)
DEPARTMENT OF MATHEMATICS AND STATISTICS
Gabrys, Roberta, Goodness-of-fit and change-point tests for functional data

Virginia Polytechnic Institute and State University (16)
DEPARTMENT OF MATHEMATICS
Cone, Randall, Finite generation of Ext-algebras for monomial algebras
Guerra Huaman, Moises, Schur-class of finitely connected planar domains: The test-function approach

Old Dominion University (9)
DEPARTMENT OF MATHEMATICS AND STATISTICS
Adams, Caleb, An extensible mathematical model of glucose metabolism
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Indika, Satish, Semi-parametric likelihood functions for bivariate survival data
Liao, Shu, Mathematical models and stability analysis of cholera dynamics
Neamprem, Khomson, Post-processing techniques and wavelet applications for Hammerstein integral equations
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Wilson, Corinne, A study of relationships between family members using familial correlations
Yang, Weiming, Analysis of models for longitudinal and clustered binary data
Kaffel, Ahmed, On the stability of viscoelastic shear flows in the limit of infinite Weissinenberg and Reynolds numbers
Laad, Toufik, Initial value problems for creeping flow of Maxwell fluids
Ordonez-Delgado, Bartleby, An embedded Toeplitz problem
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Sutton, Daniel, Structure of invariant subspaces for left-invertible operators on Hilbert space
Veliz-Cuba, Alan, The algebra of systems biology

DEPARTMENT OF STATISTICS

Chen, Jinsong, Semiparametric methods for the generalized linear models
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DEPARTMENT OF APPLIED MATHEMATICS

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Goldwyn, Joshua, Mathematical modeling of cochlear implants—from single neurons to psychoacoustics

DEPARTMENT OF BIOSTATISTICS

Choi, Yoonha, Case-control association testing in the presence of unknown cryptic relatedness and population structure
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Shohem, Abby, Information growth in longitudinal clinical trials
Woo, Sangsoon, Methodological improvements to the optimal discovery procedure

DEPARTMENT OF MATHEMATICS

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Gouveia, Jodo, Geometry of sums of squares relaxations
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Miller, Robert, Empirical evidence for the Birch and Swinnerton-Dyer conjecture
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Ross, Kiana, Characterizations of projective spaces and smooth hyperquadrics via positivity properties of the tangent bundle
Zhu, Xiaoyue, Covariance estimation in the presence of diverse types of data

Washington State University (4)

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Bodine, Elizabeth, Spectrally arbitrary patterns of matrices over finite fields
Harwood, Richard Corban, Operator splitting method and applications for semi-linear parabolic PDEs
Sun, Junjian (Sam), Optimal control problem for American put option
Tian, Ye (Alice), Optimization models on protein structure and function

WEST VIRGINIA

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DEPARTMENT OF MATHEMATICS

Chen, Chinguang, Phase transition problems of conservation laws

Li, Hao, Group colorability and Hamiltonian properties of graphs

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Medical College of Wisconsin (3)

DIVISION OF BIOSTATISTICS

Guo, Changhui, Regression models for association in clustered survival data based on pseudo-observations
Mo, Shuyuan, Inference in the presence of crossing survival curves
Sparapani, Rodney, Generalized linear mixed models in health services research with large data banks: A Bayesian implementation

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DEPARTMENT OF MATHEMATICS

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Chaibub Neto, Elias, Causal inference methods in statistical genetics