Doctoral Degrees Conferred

2007–2008

ALABAMA

Auburn University (3)

Department of Mathematics and Statistics

Ford, Robert, Path curvatures on a convex roof

Hollingsworth, Blane, Stochastic differential equations: A dynamical systems approach

Moore, Emilia, On the existence of even and K-divisible matchings

University of Alabama at Birmingham (3)

Department of Mathematics

Baker, Steven Jeffrey, Spectral properties of displacement models

Goswick, Lee, Dynamical, geometric and arithmetic properties of Euclidean lattices

Hamza, Eman, Localization properties for the unitary Anderson model

University of Alabama-Huntsville (3)

Department of Mathematical Sciences

Duehring, Dawn, Periodic traveling wave solutions for diffusion equations with time-delayed and non-local responding reaction

Hester, Anthony, Semigroups generated by pseudo-contractive mappings under the Nagumo conditions

Sinko, Anne, Generalized colorings in graphs

University of Alabama-Tuscaloosa (6)

Department of Mathematics

Raridan, Chris, Useful results for the study of magical and expander graphs

Thomas, Shawanda, An optimal hedging strategy for multiple commodities

Xu, Ming, Optimal consumption rate under certain spending behavior

University of Arizona (8)

Department of Mathematics

Berger, Lisa, Ranks of Abelian varieties in towers of function fields

Fernandes, Anthony, A partnership between a middle school teacher and a novice mathematics educator centered around the content

Ivkovic, Milos, Characterization and coding techniques for long-haul optical telecommunication systems

Miller, Justin, On p-adic continued fractions and quadratic irrationals

Program in Applied Mathematics

Arpin, Sheree, Using mathematical models to investigate phenotypic oscillations in cichlid fish: A case of frequency-dependent selection

Shen, Fangfang, Approximating ideal-observer performance using Fisher information and the extreme value distribution in detection tasks

Shkarayev, Maxim, Effects of nonlinearity and disorder in communication systems

ARKANSAS

University of Arkansas at Fayetteville (3)

Department of Mathematical Sciences

Gyurov, Boyko, Maximal inverse semigroups of transformations

Haller, Erin, Comparison principles for fully non-linear parabolic equations in Carnot groups with applications to the horizontal Gauss curvature flow

Taylor, Phillip, Analytic bounded point evaluations and polynomial approximation in the mean on crescents

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 2007, to June 30, 2008) reported in the 2008 Annual Survey of the Mathematical Sciences by 213 departments in 154 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 2009 issue of the Notices.
CALIFORNIA

California Institute of Technology (13)

DEPARTMENT OF APPLIED AND COMPUTATIONAL MATHEMATICS

Donaldson, Roger, Discrete geometric homogenisation and inverse homogenisation

Helgason, Hannes, Nonparametric detection and estimation of highly oscillatory signals

Hoch, David, Nonreflecting boundary conditions obtained from equivalent sources for time-dependent scattering problems

Monro, John, Jr., A super-algebraically convergent windowing-based approach to the evaluation of scattering from periodic rough surfaces

Sweatlock, Sarah, Asymptotic weight analysis of low-density parity check (LDPC) codes

Tian, Lixiu, Effective behavior of dielectric elastomer composites

Wang, Ke, A subdivision approach to the construction of smooth differential forms

CONTROL AND DYNAMICAL SYSTEMS

Flores, Melvin, Real-time trajectory generation for constrained nonlinear dynamical systems using nonuniform rational B-spline basis functions

Grubits, Katalin, Low-dimensional representations of transitions in molecular systems

Waydo, Stephen, Explicit object representation by sparse neural codes

DEPARTMENT OF MATHEMATICS

Levaillant, Claire, Irreducibility of the Lawrence-Kramer representation of the BMW algebra of type An-1

Tsankov, Todor, Amenability, countable equivalence, relations and their full groups

Venzke, Rupert, Braid forcing, hyperbolic geometry and pseudo-Anosov sequences of low entropy

Claremont Graduate University (3)

SCHOOL OF MATHEMATICAL SCIENCES

Beasley, Joseph, Performance feedback and control of solar concentrators using wave front sensing techniques

Paolini, Christopher, A service-oriented architecture for thermochemical computation

Xu, Dong, FEMVib, an ab initio multidimensional solver for probing vibrational dynamics in polyatomic molecules and free radicals

Stanford University (21)

DEPARTMENT OF MATHEMATICS

Akat, Muzaffer, A unified credit risk model

Alper, Jarod, Good moduli spaces for Artin stacks

Buyukbudak, Kazim, Kolyvagin systems over an Iwasawa algebra

Chang, Hual-Lian, Donaldson Thomas invariant of P1 scroll

Duque, David Fernandez, Results in dynamic topological logic

Eichmair, Michael, Non-variational existence problems in general relativity

Groft, Chad Lawrence, Isoperimetric inequalities on the universal covers of compact spaces

He, Jian, Symplectic field theory of subcritical Stein manifolds

Helleloid, Geir Trygve, Automorphism groups of finite p-groups: Structure and algorithms

Ramras, Daniel Alexander, Stable representation theory of infinite discrete groups

Wu, Baosen, Degeneration formula of Donaldson-Thomas invariants

DEPARTMENT OF STATISTICS

Chang, George, Tools for multivariate bump hunting

Chen, Jiehua, Regression models with spatially correlated errors: Applications to urban core growth in China

Chen, Zehao, Estimation of high dimensional covariance matrix and adaptive portfolio selection

Eckner, Andreas, Two essays on credit default correlation

Horel, Guillaume, Estimating integrated volatility with Markov chains

Li, Ping, Stable random projections and conditional random sampling, two sampling techniques for modern massive datasets

Salzman, Julia, Spectral analysis with Markov chains

Turnbull, Brit, Empirical null distributions and local false discovery rates

Ward, Gillian, Statistics in ecological modeling: the presence-only problem and other procedures

Zhen, Wei, Greedy functional learning machine in finance

University of California, Berkeley (6)

DEPARTMENT OF STATISTICS

Bhamidi, Shankar, Random networks: Flows and asymptotics

Dong, Rui, Coagulation-fragmentation duality for Poisson-Dirichlet distributions, and exchangeable partitions derived from Markovian coalescents

Peled, Ron, Global irregularities for Poisson processes—gravitational allocation and rough isometries

Rocha, Guilherme, Sparsity and model selection through convex penalties: Structured selection, covariance selection and some theory

Traskin, Mikhail, On the consistency of ensemble classification algorithms

GROUP IN BIOSTATISTICS

Bembom, Oliver, Statistical methods for causal inference when the assumption of experimental treatment assignment is violated

University of California, Davis (21)

DEPARTMENT OF MATHEMATICS

Breslin, William, Curvatures of surfaces in hyperbolic 3-manifolds

Farrell, Brendan, Analysis of noncommutative operator classes in information theory and harmonic analysis

Guan, Raymond, Advanced equalization techniques for wireless communications

Hodge, Andrew, The degrees of the logarithmic extension of the cotangent bundle to the moduli of pointed curves and Hitchin systems, spectral curves and KP equations

Lai, (Yuan-Juang) Yvonne, An effective compactness theorem for Coxeter groups

Lee, Jaejeong, Fundamental domains of convex projective structures

Liu, Shuang, Improving the classification of microarray data: Supervised and unsupervised methods

Rutherford, Daniel, Relationship between Legendrian knot invariants and rough isometries

Suh, Chan-Ho, Modified normal surface theories

Williams, Michael, Lens space surgeries on tunnel number one knots

Wilmoth, Constance, Projections of singular vectors of Verma modules over rank 2 Kac-Moody Lie algebras

Wright, Roy, Spatial and temporal heterogeneity of host-parasitoid interactions in lupine habitat

Yan, Pengchong, Broadband detection and imaging of multiple targets in clutter

DEPARTMENT OF STATISTICS

Gu, Zhonghua, Model diagnostics for generalized linear mixed models

Liu, Wei, Statistical network comparison

Lu, Ruxiao, Statistical issues in detection of biological signals in the analysis of microarray gene expression data

Nguyen, Thuan, New procedures of fence methods and their applications

Tang, En-Tzu, On estimation of the mean squared error in small area estimation and related topics

Tseng, Szu-Ching, A generalized self-consistency approach to semiparametric survival models

Zhang, Zhen, Functional data analysis for densities

Zhu, Li, Modeling dynamics in two statistical problems: Longitudinal disease activity score and parasite infection
University of California, Irvine (5)

Department of Mathematics
Li, Xiangrong, Nonlinear simulations of solid tumor growth using a mixture model: Invasion and branching
Munteanu, Ovidiu, The structure of complete manifolds with positive spectrum
Vargas, Benjamin, Mixed end conditions and morphogen gradient formation
Webster, Micah, Nonlinear stability analysis of a free boundary problem
Wong, Chiu Fai, Zeta functions of projective toric hypersurfaces over finite fields

University of California, Los Angeles (17)

Department of Mathematics
Brandman, Jeremy, A level set method for calculating eigenvalues of elliptic operators on closed surfaces and a proof of blow up of L^∞ weak solutions of an aggregation equation
Busch, Joseph, Lower bounds in arithmetic complexity via asymmetric embeddings
Epstein, Inessa, Some results on orbit inequivalent actions of non-amenable groups
Hinde, Colin, The essence of Ricci curvature
Kwon, Soonsik, Low regularity problem of the higher order KdV type equations and the orbital stability issues of soliton solutions
Landa, Yanina, Visibility of point clouds and exploratory path planning in unknown environments
Leo, John, Fourier coefficients of triangle functions
Ni, Kang-Yu, Variational PDE-based image segmentation and inpainting with applications in computer graphics
O’Donnell, Danielle, Intrinsically n-linked spatial graphs
Prescott, Timothy, Invariance principles for random environments and shape theorems
Roy, Tristan, Global existence of the defocusing cubic wave equation in dimension 3
Sinapova, Dima, A model for a very good scale and bad scale
Smith, S. Alex, Layered percolation on the complete graph
Souldatos, Ioannis, Characterizable cardinals and local Hanf numbers
Waelder, Robert, Elliptic genera in algebraic geometry
Yanosky, Igor, Unbiased nonlinear image registration
Zhu, Mingliang, Fast numerical algorithms for total variation based image restoration

University of California, Riverside (5)

Department of Statistics
Lesch, Scott, A new class of goodness-of-fit tests based on linear functions of order statistics for the exponential distribution under general Type II censoring schemes
Liu, Junmei, Estimating the number of species from a censored sample
Wilson, Jason, On the probability of correct selection when k is large
Zhang, Qifeng, Different statistical tests to assess the validity of one-part software reliability models
Zhang, Wei, Logistic regression with unknown sizes

University of California, San Diego (12)

Department of Mathematics
Angle, Robert, Holomorphic Segre preserving maps
Buckovschi, Orest, Simple Lie algebras, algebraic prolongations and contract structures
Butler, Steven, Eigenvalues and structures of graphs
Clark, David, Functorality for the su(3) Khovanov homology
Guo, Hong Xin, The 3-dimensional steady gradient Ricci soliton
Horn, Larissa, Fun with tensor products
Liese, Jeffrey, Counting patterns in permutations and words
Nordgren, Karl, Well-posedness for the equations of motion of an inviscid, incompressible, self gravitating fluid with free boundary
Regev, Alon, Filtered algebraic algebras
Richardson, Ross, Combinatorial and geometric problems on point processes
Riehl, Amanda, Ribbon Schur functions and permutation patterns
Robinson, Daniel, Primal-dual methods for nonlinear optimization

University of California, Santa Barbara (4)

Department of Statistics and Applied Probability
Bagsheva, Biliana, Bayesian methods in the investment management process
Kaneda, Naohisa, Fitting mixture models from kernel estimators
Vestal, Douglas, Interacting particle systems for pricing credit derivatives
Wang, Dezong, Pricing tranches of a CDO and CDX index

University of California, Santa Cruz (2)

Department of Applied Mathematics and Statistics
Patil, Anand, Bayesian nonparametrics for inference of ecological dynamics

University of Southern California (7)

Department of Mathematics
Akopian, Vardan, Modeling of Earth's ionosphere and variational approach for data assimilation
Alaghabn, Mohamad, Stochastic models for understanding and pattern recognition of molecular data
DiMuro, Joseph, On prime power elements of GL_d(q) acting irreducibly on large subspaces
Han, Yong Ho, Commuting triples of matrices
Hiatt, Christopher, Quantum traces in quantum Teichmüller space
Mayberry, John, The effects of noise on bifurcations in circle maps with applications to integrate-and-fire models in neural biology
Villalobos, Jose, Monte Carlo methods for FBSDEs in high dimensions

COLORADO

Colorado State University (13)

Department of Mathematics
Al-Azemi, Abdullah, Classification algorithms for graphs, digraphs, and linear spaces
Davis, Diane, Toward a type Bn geometric Littlewood-Richardson rule
Fatemeh, Emad, Signal fraction analysis for subspace processing of high dimensional data
Jen-Mei, Chang, Classifications on the Grassmannians: Theory and applications
Mertens, Keith, Mathematical methods for fluid-solid interfaces: Meandering streams and sand ripples
Murphy, Ethan, 2-D D-bar conductivity reconstructions on non-circular domains
Muskat, Jeremy, Algebraic curves over finite fields
Peters, Pamela, Gaussian maps for double covers of smooth toric surfaces
Wildey, Timothy, A posteriori analysis of operator decomposition on interface problems
Yue, Qiao, Radial basis functions (RBFs) for solving color conversion problems

Department of Statistics
Cao, Xiaofan, Model selection based on expected square Hellinger distance
Higgs, Megan, Clipped latent-variable spatial models for ordered categorical data
Wu, Rongning, Estimation for some linear and nonlinear time series models
University of Colorado, Boulder (9)
Department of Mathematics
Bruns, Corey, Variations of independence in Boolean algebras
Davenport, John, Analysis of American options
Ernst, Dana, A diagrammatic representation of an affine C Temperley–Lieb algebra
Formichella, Marc, Functional equations among Barnes’ integrals and hypergeometric series
Mann, Allen, Independence-friendly cylindric set algebras
Nickodemus, Matthew, Natural dualities for finite groups with Abelian Sylow subgroups
Pohlmann, Brent, Structural properties of acyclic heaps with applications to Kazhdan-Lusztig theory
Radhakrishnan, Vinod, An asymptotic formula for the number of non-Serre curves in a two parameter family of elliptic curves
Seguin, Troy, Risk measures

CONNECTICUT
University of Connecticut, Storrs (9)
Department of Mathematics
Bowers, Adam, The Grothendieck inequality: Methods and applications
Kaur, Sawinder Pal, An eigenvalue problem for some nonlinear transformation of multidimensional arrays
Kanasinghe, Sudath, Model to develop a provision for adverse deviation (PAD) for the mortality risk of impaired lives

Department of Statistics
Das, Sourish, Generalized linear models and beyond: An innovative approach from Bayesian perspective
Guo, Feng, Modeling genetic data using Bayesian hierarchical models
Li, Pengfei, A factor and vector-AR model for analyzing high dimension volatility for high frequency financial data
Mukhopadhyay, Jaydip, Mining tools for high-dimensional time series data using spectral methods
Xi, Yingmei, New development of Bayesian mixture models for survival and survey data
Yu, Fang, Bayesian methods for high-throughput gene expression data in bioinformatics

DELWARE
University of Delaware (6)
Department of Mathematical Science
Beckham, Jon Regan, Analysis of mathematical models of electrostatically deformed elastic bodies
Moulton, Derek, Mathematical modeling of field driven curvature surfaces
Ronkese, Robert, The analysis and numerical simulation of a mathematical model of bone growth and reabsorption
Vasquez, Paula, Modeling wormlike micellar solutions
Zhang, Ningyi, Inverse problem for wave propagation in a perturbed layered half-space and orthogonality relations in poroelastic materials
Zhang, Xinyi, Expected length of minimum spanning tree

DISTRICT OF COLUMBIA
George Washington University (9)
Department of Mathematics
Andress, Tanya, The spectrum and the first Čech cohomology group of a one dimensional tiling dynamical system
Barg, Michael, Direct methods in the calculus of variations with applications to tendon-reinforced piezoelectric, isotropic membranes
Jasso-Hernandez, Fanny, A homological algebraic approach to the Tutte polynomial
McKenna, Geoffrey, Graphs, algebra, and probability
Niebryzowski, Maciej, Some applications of quandles and their homology to the geometry of knots

Department of Statistics
Davi, Ruthanna, Joint testing of sensitivity, specificity, and kappa in diagnostic studies
Huang, Dalong, Effects of contamination on statistical inference using sib-pair analysis
Shu, Yu, Group sequential designs and inference of a medical diagnostic test with binary analysis
VanRaden, Mark, Cumulative logit-Poisson and cumulative-logit negative binomial compound regression models for count data

Howard University (3)
Department of Mathematics
Attimu, Dodzi, Linear operators on some non-Archimedean Hilbert spaces and their spectral theory
Dembele, Bassidy, Malaria model in periodic environments
Legette, Lakeshia, Maximal groups in the Stone–Čech compactification of a discrete semigroup

FLORIDA
Florida Atlantic University (1)
Department of Mathematical Sciences
Kalis, Jan, Sobolev inequalities

Florida Institute of Technology (4)
Department of Mathematical Sciences
Mamillapalle, Sameer, A study of functional differential equations with anticipation and retardation
Sartor, Kenneth, A study of variational phase estimation methods for synthetic aperture radar applications
Seetharaman, Hariharan, Adapted wavelet methods for heat equation on unbounded domains
Shaykhian, Gholam, Integration and optimization: Irrational numbers for random sequences and scope of evolutionary algorithms

Florida State University (15)
Department of Mathematics
Chan, Wan-Kan, Analysis and approximation of a two-handed Ginzburg-Landau model of superconductivity
Chen, Zheng, ANOVA for parameter dependent nonlinear PDEs and numerical methods for the stochastic Stokes equations
Culham, Andrew, Asset pricing in a Lucas framework with boundedly rational heterogeneous agents
Moreno, Juan, Impulse control problems under non-constant volatility
Nguyen, Hoa, Centroidal Voronoi tessellations for mesh generation: From uniform to anisotropic adaptive triangulations
Novocin, Andrew, Factoring univariate polynomials over the rationals
Saka, Yuki, Analysis of two PDE models in fluid mechanics: Nonlinear spectral eddy-viscosity model of turbulence and infinite-Prandtl-number model of mantle convection
Singleton, Lee, Geometric and computational generation, correction, and simplification of cortical surfaces of the human brain
Zhu, Wuming, A spectral element method to price European options

Department of Statistics
Choi, Seo-eun, A statistical approach to ocean circulation inverse problem
He, Jianghua, Time-varying coefficients models for longitudinal aging data
Norton, Jon, Spatiotemporal Bayesian hierarchical models, with application to birth outcomes
Stefanov, Dimitre, Cardiovascular risk functions based on multi-state models
Tan, Fei, A method for finding the nadir of non-monotonic relationships
Uhm, Dai Ho, Flexible additive risk models using piecewise constant hazard functions

University of Central Florida (4)

DEPARTMENT OF MATHEMATICS
Flores, Paul, Categorical properties of lattice-valued convergence spaces
Holmquist, Sonia, An examination of the effectiveness of the Adomian decomposition method in fluid dynamic applications
Vogel, Thomas, Soliton solutions of non-linear partial differential equations using variational approximations and inverse scattering techniques
Wlodarczyk, Tomasz, Stability and preservation properties of multisymplectic integrators

University of Florida (21)

DEPARTMENT OF MATHEMATICS
Aslan, Beyza, A continuous approach to the lightning discharge
Brodhead, Paul, Computable aspects of closed sets
Chen, Pengwen, Bergman metrics and their applications
Coleman, Micah, Asymptotic enumeration in pattern avoidance and in the theory of set partitions and asymptotic uniformity
Nguyen, Hung Ngoc, Representations of finite groups of Lie type
Sabuwala, Adnan, A convergence study of spectrally matched grids in the presence of non-smooth data and anisotropy
Strich, Robert, Passive states and estimation of observables in algebraic quantum field theory
Venkataraman, Prabhu, The 2- lien of a 2-gerbe
Zeng, Qingsuo, Diffusion weighted magnetic resonance image analysis and medical image registration
Zheng, Xiqiang, Efficient Fourier transforms on hexagonal arrays

DEPARTMENT OF STATISTICS
Baldwin, Jamie, Evaluating adjustments to the mean squared error due to estimating variance parameters in linear mixed models
Giurcanu, Mihai, Biased bootstrap for semiparametric models
Lee, Keunbaik, Marginalized regression models for longitudinal categorical data
Li, Hongying, Mapping quantitative trait nucleotides with longitudinal data subject to non-ignorable dropout
Liu, Tian, Bayesian functional mapping of complex dynamic traits

Naranjo, Arlene, State-space models with exogenous variables and missing data
Papageorgiou, Georgios, Multivariate limited translation estimators
Roy, Ananya, Empirical and hierarchical Bayesian methods with applications to small area estimation
Ryu, Euijung, Modeling and inference for an ordinal effect size measure
Saha, Sourish, Response surface designs for linear mixed models
Santra, Upasana, Probability matching priors for the bivariate normal distribution

University of South Florida (12)

DEPARTMENT OF MATHEMATICS
Adhikari, Dhruba R., Applications of degree theories to non-linear operator equations in Banach spaces
Andreevska, Irena, Mathematical modeling and analysis of options with jump-diffusion volatility
Daqqa, Ibtsam, Subconstituent algebras of Latin squares
Davis, John C., Identification of parameters when the density of the minimum is given
Genova, Daniela, Forbidding and enforcing of formal languages, graphs, and partially ordered sets
George, Florence, Johnson’s system of distributions and microarray data analysis
Hoare, Armando, Parametric, non-parametric and statistical modeling of stony coral reef data
Ibrahim, Boubakari, The Leray-Schauder approach for the topological degree of perturbed maximal monotone operators
Mbah, Alfred K., On the theory of records and applications
Shih, Shou Hsing, Forecasting models for economic and environmental data
Staninska, Ana, A theoretical model for flexible tiles self-assembly
Taylor, Rodney, Lagrange interpolation on Leja points

GEORGIA

Emory University (6)

DEPARTMENT OF BIOSTATISTICS
Chen, Huichao, Statistical methods for modeling exposure and reproductive outcomes
Crawford, Sara, Multiple sources of informative dropout in longitudinal data
Wannemuehler, Kathleen, Likelihood-based measurement error adjustments in occupational and environmental exposure studies

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Hanson, Lauren, Techniques in constrained optimization involving partial differential equations
Magnant, Colton, Partitions of graphs under distance constraints
Nastase, Esmeralda, Color criticality and chromatic connectivity of graphs

Georgia Institute of Technology (7)

SCHOOL OF MATHEMATICS
Carroll, Christina, Enumerative combinatorics of posets
Inkmann, Torsten, Tree-based decompositions of graphs on surfaces and applications to the traveling salesman problem
Kampel, Guido, Mathematical modeling of fines migration and clogging in porous media
Kettner, Michael, Algorithmic and topological aspects of semi-algebraic sets defined by quadratic polynomials
Lessard, Jean-Philippe, Validated continuation for infinite dimensional problems
Ulusoy, Suleyman, The mathematical theory of thin film evolution
Viveros-Rogel, Jorge, An extension of KAM theory to quasi-periodic breather solutions in Hamiltonian lattice system

University of Georgia (13)

DEPARTMENT OF MATHEMATICS
Cinkir, Zubeyir, The tau constant of metrized graphs
Cooper, Bobbe Jane, Support varieties for tilting modules for Glw
Davie, Emille Kennae, Characterizing right-veering homeomorphisms of the punctured torus via the Burau representation of B3
Liu, Haipeng, Prewavelet solution to Poisson equations
Petrov, Peter Konstantinov, Nash problem on spaces of arcs
Platt, Kenyon, Classifying the representation type of infinitesimal blocks of category Os
Rusinko, Joseph Patrick, Equivalence of mirror families constructed by toric degenerations of flag varieties
Wright, Caroline, Second cohomology groups of Frobenius kernels
Wu, Jianbao, Spherical splines for Hermite interpolation and surface design

DEPARTMENT OF STATISTICS
Cai, YiMei, Estimation of the seed dispersion distribution with genotypic data
Iaci, Ross, Multivariate association and dimension reduction
Park, Jin-Hong, Dimension reduction in time series
Zhang, ChenHua, Applications of smoothly varying functions and tail index estimation

**ILLINOIS**

**Illinois Institute of Technology** (2)

**DEPARTMENT OF APPLIED MATHEMATICS**

Erickson, John F., Generalized native spaces

Ortega, Oscar, Consensus and location: The mean function

**Northern Illinois University** (4)

**DEPARTMENT OF MATHEMATICAL SCIENCES**

Cappetta, Robert, Reflective abstraction and the concept of limit: An experimental study

Kisunzu, Phillip, Teacher instructional practices, students' mathematical dispositions and mathematics achievement

Poliak, Cathy, Observed confidence levels for regression parameters

Santra, Sourav, Some contributions to design and analysis of crossover experiments

**Northwestern University** (11)

**DEPARTMENT OF MATHEMATICS**

Alexander, Gary Clark, Index theorems on noncommutative two-tori and Hochschild cohomology of quantum special linear groups

Bailey, Scott, Topological splittings of spectra related to tmf

Chu, Chenghao, Representing cohomology theories in the triangulated category of motives

Dhand, Vivek, Geometric Langlands duality and forms of reductive groups

Novak, Christopher, Group actions via interval exchange transformations

**DEPARTMENT OF ENGINEERING SCIENCES AND APPLIED MATHEMATICS**

Donovan, Graham, Rare event simulation systems using the cross-entropy method

Kao, Justin, Mathematical modeling, simulation, and analysis of two problems in interfacial fluid dynamics

Tikhomirova, Anna, Mathematical modeling of structure formation in angiogenesis

Vaughan, Benjamin, Applications of the extended finite element method in mathematical biology

**DEPARTMENT OF STATISTICS**

Ge, Yang, Bayesian inference with mixtures of logistic regression: Functional approximation, statistical consistency and algorithmic convergence

Rhoads, Christopher, Utilizing prior information about the variance structure

**Southern Illinois University, Carbondale** (3)

**DEPARTMENT OF MATHEMATICS**

Abuassan, Hassan, Some transformed distributions

Lin, Yuan, High-order finite difference methods for solving heat equations

deSouza, Comlanto, Periodic eigenfunctions of the Fourier transform operator

**University of Chicago** (22)

**DEPARTMENT OF MATHEMATICS**

Bremer, Christopher, An Euler integral formula for epsilon factors of connections

Csima, Nora Elizabeth, Newton-Hodge filtration for F-crystals with structure

Day, Matthew, Symplectic structures on right-angled Artin groups: Between the mapping class group and the symplectic group

Gashi, Qëndrim, A conjecture of Kottwitz and Rapoport for split groups

Geline, Michael, Modular representation theory and the Schur index

Guillou, Bertrand, On some properties of motivic cohomology

Kamgarpour, Masoud, Stacky Abelianization of connected algebraic groups

Lange, Karen, The computational complexity of homogeneous models

Lee, Benjamin, On the algebraic de Rham complex

Longo, Nicholas P. M., Quasilinear Schrödinger equations

Masson, Robert, The growth exponent for planar loop-erased random walk

Nguyen, Tu Anh, Unique continuation for parabolic equations and local well-posedness for mKdV equation

Peng, Irine, Quasi-isometries of some solvable groups

Schedler, Travis, Differential operators and Batalin-Vilkovisky structures in noncommutative geometry

Tikaradze, Akaki, The center and representations of infinitesimal Hecke algebra

Wallace, Christopher, Galois and motivic Galois groups

Zbarsky, Boris, On some stratifications of affine Deligne-Lusztig varieties for SL_3

**DEPARTMENT OF STATISTICS**

Hugeback, Angela, Point process models for astronomy: Quasars, coronal mass ejections and solar flares

Ke, Baoguan, A method for genetic mapping of quantitative traits and related statistical problems

Kim, Su Yeon, Adaptive evolution of conserved non-coding elements

Lim, Chae Young, Characteristics of a model error in an air quality model and fixed-domain asymptotic properties of spatial cross-periodograms

Zhao, Zhibiao, Nonparametric inference for stochastic diffusion models

**University of Illinois at Chicago** (18)

**Epidemiology and Biostatistics Division**

Evans, Charlesika, Blood stream infections in veterans with spinal cord injury

Fitchett, George, The role of daily spiritual experience in cardiovascular disease

Gao, Sasha, Information recovery from surrogate outcomes in incomplete longitudinal data

Mattson, Christine, Risk compensation, circumcision, and HIV prevention in Kisumu, Kenya

McIntyre, Anne, Lessons learned from surveillance for bacterial infectious diseases

Qualls-Hampton, Raquel, Health-related quality-of-life and pain in an SCI population: Descriptive and factor analysis

**Mathematics, Statistics & Computer Science Department**

Cashen, Christopher, Quasi-isometries among tubular groups

Chan, Kungho, Local positivity and Seshadri constants

Fathallah-Shaykh, Hassan, Modeling and local filtering of noise embedded in genome-scale microarray datasets

He, Peng, The risk neutral dynamics of market implied volatility and its application

Krop, Elliot, Enumerating matchings in regular graphs

Rafalski, Shawn, Immersed turnovers in hyperbolic 3-orbifolds

Vozoris, Kathryn, The complex field with a predicate for the integers

Yuca, Iker, Decompositions of 2-generator free Kleinian groups and hyperbolic displacements

Zhang, Weiyu, Designs for a toxicity-monitoring and adaptive evolution of conserved non-coding elements

Zhou, Ling, Association rule mining and quantitative association rule mining among infrequent items

Zhuang, Yan, Parallel implementation of polyhedral homotopy methods
INDIANA

Indiana University, Bloomington (8)

DEPARTMENT OF MATHEMATICS

Duncan, Jonathan, First return recovery of Baire class one functions on ultrametric spaces
Franko, Jennifer, Braid group representations via the Yang Baxter equation
Irwin, Trevor, Fairiss limits and colimits with applications to continua
Jung, Min Kyung, Statistical methods for biological applications
Pham, Du, Comparison of finite volume and finite difference methods and convergence results for finite volume schemes
She, Chunfeng, A mathematical model for power derivatives
Zhao, Siyu, Pricing caps and swap options when bond prices follow jump-diffusion processes and have log-price volatility
Zhou, Chunlai, Complete deductive systems for probability logics with applications in Harsanyi type spaces

Purdue University (26)

DEPARTMENT OF MATHEMATICS

Azar, Monique, Some lower and upper bounds in real algebraic geometry
Blanco-Silva, Francisco, The curvelet transform, a generalized definition and approximation properties
Deger, Mustafa Ersin, A biholomorphism from the Bell representative domain onto an annulus and kernel functions
Dwelle, Kayla, Some results on Hadamard closure and variation diminishing properties of totally nonnegative matrices
Gu, Nan, Some results in the problem of simultaneous resolution of singularities
Kumar, Manish, Fundamental group in positive characteristic
Lomelí, Luis, Functoriality for the classical groups over function fields
Maxin, Daniel, The interplay of isolation from reproduction with demography and sexually transmitted diseases
Mitchell, Ronald (Chris), Hochschild cohomology and the Smith resolution
Studeja, Bartlomiej, Properties of heat kernels
Tan, Kuan, Applications of the Schwarz function to a class of multiply connected domains with symmetries
Tapp, Darren, Bernstein-Sato polynomials and Picard-Lefschetz monodromy
Valdasthi, Javid, Multiplicities of graded algebras
Vizcarra, Andrew, Regularity of sub-Gaussian processes and other random fields
Wang, Chunbo, Mixed finite element methods for the Stokes and Navier-Stokes equations
Yalcin, Umud, Rank three symplectic groups
Yang, Xiaofeng, Modeling, analysis and simulation of multi-phase flows
Zheng, Pei, Mathematical modeling of host-parasite dynamics
Zhao, Yanhong, On forward-backward stochastic differential equations and related numerical methods

SINCE 1995

University of Illinois, Urbana-Champaign (24)

DEPARTMENT OF MATHEMATICS

Asgari, Salih, Model theory of valued difference fields
Bansal, Shivi, Rational points on lattice varieties
Cao, Zhu, Product identities for theta functions
Chatya, Somjate, Complex dynamics and Salem numbers
Ferguson, Colin, Chain conditions on subnormal subgroups
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Kou, Ming, Existence and convergence of stochastic Loewner evolution in multiply connected domains
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Park, Seung Kook, Applications of algebraic curves to cryptography
Prince, Noah, Delitz-system methods in contemporary graph theory
Schoretsanitis, Konstantinos, Fraisse theory for metric structures
Sintimadev, Malinee, Prescribing dilations in space
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Vandenbussche, Jennifer, Five topics in extremal and structural graph theory
Wang, Chunlin, On the estimator of the density of Feynman-Kac semigroups of 2-stable-like processes and the purely discontinuous Girsanov transform of 2-stable-like processes
Wu, Qingquan, Algorithmic aspects of biquadratic cubic and radical function field
Xiong, Maosheng, Algorithmic aspects of biquadratic cubic and radical function field
Xing, Maozheng, Distribution of Selmer groups of quadratic twists of a family of elliptic curves

DEPARTMENT OF STATISTICS

Li, Di, Markov chain marginal bootstrap for generalized estimating equations

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Chailleux, Kamthorn, An extension of Bergman spaces and their Toeplitz operators
Elefteriou, Panteleimon, Groups definable in linear o-minimal structures
Harper, John, Quillen homology of modules over operads
Jones, Benjamin, On the singular Chern classes of Schubert varieties via small resolution
Quinn, Sara, Algorithmic complexity of algebraic structures

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Chung, Key One, Weak homomorphisms of coalgebras
Fiedler, James, Greco-Latin squares as bijections
Halverson, Matthew, Asymptotic behavior of the solutions to a family of PDE’s arising from the chemotaxis equations of Keller and Segel

VALIDATION

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Doctoral Degrees Conferred

Meng, Qiang, Topics in pricing American type financial contracts
Rice, Theodore, Greedy quasigroups and greedy algebras with applications to combinatorial games
Wang, Zhongming, Development of level set method for computing the semi-classical limit in Schrödinger equations with potentials

**Department of Statistics**

Chatterjee, Arindam, Applications of asymptotic expansions to some statistical problems
Huckett, Jennifer, Synthetic data methods for disclosure limitation
Lawrence, Michael, Interactive graphics, graphical user interfaces and software interfaces for the analysis of biological experimental data and networks
Ott, Ellis, Schools left behind; statistical issues with NCLB (No Child Left Behind)
Wickham, Hadley, Practical tools for exploring data and models

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Ortiz-Rosado, Ricardo, Newton/AMG algorithm for solving complementarity problems arising in rigid body dynamics with frictional impacts
Pansera, Jerome, Local risk minimization, consistent interest-rate modeling and applications to life insurance

Department of Biostatistics

Minggen, Lu, Analysis of panel count data using monotone polynomial splines
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Tan, Huaming, Variable selection and estimation in the partially linear AFT model
Zhang, Suhong, Inference on association measure in copula model for bivariate survival data with hybrid censoring and application to a HIV study
Zugui, Zhang, Model selection for nearly replicated data based on conceptual predictive statistics

Department of Mathematics

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Cáprau, Carmen, An sl(2) tangle homology and seamed cobordisms
Díaz, Esteban, Connections between homology group planes, and flocks of quadric cones
Duyn, Yanzheng, On some geometric and approximation properties in Banach spaces
Hamon, Suzanne, Some topics in t-factorizations
Llorente, Giovanna, Stable endomorphism rings of Ext groups for the symmetric group $S_n$
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Wendt, Theodore, Mixed complementarity formulations and energy balance in dynamic contact problems

Department of Statistics and Actuarial Science

Feng, Dai, Bayesian hidden Markov normal mixture models with application to MRI tissue classification
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**KANSAS**

Kansas State University (5)

Department of Mathematics

Adongo, Donald, A local extrapolation method for hyperbolic conservation laws: The ENO and Goodman-LeVeque underlying schemes and sufficient conditions for TVD
Chen, Weidong, An efficient method for an ill-posed problem—band-limited extrapolation by regularization

Department of Statistics

Bhattacharjee, Debashis, Evaluation of $\pi_0$ estimators
Li, Ying, On goodness-of-fit of logistic regression model
von Borries, George Freitas, Partition clustering of high dimensional low sample size data based on p-values

University of Kansas (3)

Department of Mathematics

Parker, Kenneth, Some results in obstruction theory for projective modules
XiaoBo, Liu, Some problems in the stochastic portfolio theory
Yasong, Jin, Maximum queue length of a fluid model with a Gaussian input

**Wichita State University (1)**

Department of Mathematics and Statistics

Harder, Theodore, Some remarks on constructive Yukawa theory in four dimensions

**KENTUCKY**

University of Kentucky (7)

Department of Mathematics

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Godefroy, Hugh, A study of orientation maps: Crystallographic symmetry, mean orientation, and applications
Kiteck, Daniel, Covers of models
Petrovic, Sonja, Algebraic and combinatorial properties of certain toric ideals in theory and applications
Shin Kim, Aekyoung, The $L^p$ Neumann problem for Laplace's equation on convex domains
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Zhang, Wei, GMRES on a tridiagonal Toeplitz linear system

University of Louisville (4)

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Wiglesworth, Lesley, A study of unit bar-visibility graphs

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Louisiana State University, Baton Rouge (5)

Department of Mathematics

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Wallace, Steven, Surgery description of colored knots

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Liu, Chang, Stochastic modeling of retail mortgage loans based on past due, prepaid, and default states

Nielsen, Erik Alfonso, Nonlinear dynamical analysis of brain electrical activity due to exposure to weak environmentally relevant electromagnetic fields

Niu, Tianchan, A hyperbolic two-step model based finite difference method for studying thermal deformation

Tulane University (3)

Department of Mathematics

Aranda, Vivian, Computational modeling of peristaltic pumping using the method of regularized Stokeslets

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Musielak, Magdalena, A computational model of nutrient transport and acquisition by diatom chains in a moving fluid

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Department of Mathematics

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An, Ming-Wen, On the importance of designs in better addressing missing data due to death and to loss-to-follow-up

Colantuoni, Elizabeth, Topics in causal estimation for public health research

Li, Xianbin, Modeling composite outcome and jointly modeling its components

Lu, Yun, Detecting and contending with the influence of “unmeasured” confounders

Luo, Sheng, Mixed effects stochastic process models of smoking cessation behavior

Manichaikul, Ani, Statistical methods for mapping quantitative trait loci in experimental crosses

McGready, John, Two studies on current issues in biostatistical education

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Su, Shu-Chih, Structure/function relationships in the analysis of anatomical and functional neuroimaging data

Wang, Weiwei, Counterfactual inference from observational data: Methods and applications

Yin, Yue, Bayesian analysis of infectious disease time series data and optimal constrained Bayesian updating

Zhou, Yijie, Association of mortality rates with race and income among U.S. Medicare participants

Department of Mathematics

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MacDonald, Brian, Statistics of non-real zeros and critical points of systems of real random polynomials in several variables

Wang, Shaoli, On a certain triple system, elliptic curves and Gauss theory of quadratic forms

Zhong, Qi, Energies of zeros of random sections on Riemann surfaces

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Department of Mathematics and Statistics

Li, Feng, Statistical inference for proteomics

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Sun, Zhibin, Geomagnetic data assimilation using ensemble methods to estimate forecast error covariance

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Boston University (7)

Department of Mathematics and Statistics

Busuioc, Cecilia, Eisenstein cohomology, Milnor K-theory and special values of L-functions

Marotta, Sebastian, The complex dynamics of singularly perturbed rational maps

Matsura, Ryota, Twisted root numbers of elliptic curves semistable at primes above 2 and 3

Mikitchenko, Oleg, Applications of the resolution of singularities to asymptotic analysis of differential equations

Wahl, Eric, Geodesics on isopotential surfaces and solutions to Newton’s N-body problem

Yeats, Karen, Growth estimates for Dyson–Schwinger equations

Zollinger, Elizabeth, A family of comets in the three-body problem

Boston University School of Public Health (6)

Department of Biostatistics

Cho, Kelly, Handling linkage disequilibrium in linkage analysis using dense SNPs

Lee, Sophia, Analysis of correlated binary data in non-inferiority trials

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Scaramuzzi, Amy, A modified log rank test to account for left truncated survival data: A comparison with the usual log rank test

Wang, Ling, Bayesian model-based clustering of short-time series

Yin, Xiaoyan, Genetic association analyses of time-to-event data: Selection bias and imputation from the Framingham Heart Study

Brandeis University (2)

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Hedt, Bethany, Novel methods for efficient surveillance and monitoring

Loerch, Patrick, Using mixed effects models to integrate high-dimensional, genomic data and an array-based analysis of the evolution of brain aging

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Pet, Lixia, Design and analysis of quantile equivalence bridging trials
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Lan, Kai-Wen, Arithmetic compactification of PEL-type Shimura varieties
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Smyth, David, Compact moduli of singular curves: A case study in genus one

DEPARTMENT OF STATISTICS
Fan, Xiaodan, Integrating correlated datasets to improve inference in computational biology
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SCHOOL OF ENGINEERING AND APPLIED SCIENCE
Cavallo, Ruggiero, Social welfare maximization in dynamic strategic decision problems
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Durant, Kathleen, Sentiment drift and its effect on the classification of web log posts
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Kirsch, Adam, Hash-based data structures for extreme conditions
Lahaie, Sebastien, A modular framework for multi-agent preference elicitation
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Lee, Benjamin, Statistical inference for efficient microarchitectural analysis

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Roper, Marcus, Symmetry breaking and un-breaking in microhydrodynamical systems: Swimming, pumping and bioballistics
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Gu, Jerin, Single-petaled $K$-types and Weyl group representations for classical groups
Havlickova, Marketa, Boundaries of $K$-types in discrete series
Kamrin, Kenneth, Stochastic and deterministic models for dense granular flow
Konvalinka, Matjaž, Combinatorics of determinantal identities
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Long, David, Alexander and Thurston norms of links and 3-manifolds
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Caterina, Gianluca, Least action principles and additive invariants for a class of reversible cellular automata
Munro, Erin C., The axonal plexus: A description of the behavior of a network of axons connected by gap junctions

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DEPARTMENT OF MATHEMATICS AND STATISTICS
Are, Sasanka, Coarse-graining dynamics of interacting particle systems
Beheshti, Shabnam, Solutions of dilaton field equations with applications to the soliton-black hole correspondence in generalized JT gravity
Damon, Eli, Analysis of the Gauss-Green form on the moduli space of unduloids
Diehl, Michael, Large deviations of observables in classical and quantum lattice spin systems
Fenn, Molly, Generating equivalence class of $B$-stable ideals
Herring, Gregory, Some applications of computational mathematics: Tumor angiogenesis and Bose-Einstein condensates
Oh, Choongwon, Well-posedness theory of a one parameter family of coupled KdV-type systems and their invariant Gibbs measures
VonRenesse, Christine, Combinatorial aspects of toric varieties

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DEPARTMENT OF MATHEMATICAL SCIENCES
Richardson, Casey, Some problems in the mathematics of fracture: Paths from front kinetics and a level set method

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DEPARTMENT OF MATHEMATICS
Alraaqad, Tariq, Construction of non-embeddability of quasi-residual designs
Karthikeyan, Palramani, Compact and Hilbert-Schmidt weighted composition operators on the Bergman space
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Brooks, Cara, A discrepancy principle for parameter selection in local regularization of linear Volterra inverse problems

Goyt, Adam, Patterns in set partitions and compositions

Guha, Mohar, Front dynamics in non-smooth ignition systems in a noisy environment

Gurel, Erhan, Galois structure of modular forms of even weight

Lee, Ki-Moon, The maximum-likelihood decoding algorithms of low-density codes over binary erasure channels

Lee, Tsung-Lin, A rank-revealing method for low-rank matrices with updating, downdating, and applications

Li, Ying, Studies of nonlinear problems for Maxwell's equations

Luo, Xiaoyue, Local regularization for non-linear Volterra integral equation of Hammerstein type

Seckin, Elif, Centralizers of elements of prime order in locally finite simple groups

Sun, Yuhui, Mathematical modeling of images and surfaces

Walla, Rajeev, Tensor factorization and spin construction for Kac-Moody algebras

Yu, Si-Ning, Matched interface and boundary (MIB) method for surface singularities and its applications

**DEPARTMENT OF STATISTICS AND PROBABILITY**

Zhang, Yanwei, A hierarchical Bayesian approach to model spatially correlated binary data: With applications to dental research

**Michigan Technical University (1)**

**DEPARTMENT OF MATHEMATICS AND SCIENCE**

Qin, Huazhen, Statistical approach for genome-wide association study and microarray analysis

**Oakland University (4)**

**DEPARTMENT OF MATHEMATICS AND STATISTICS**

Kirkwood, Daniel, A hybrid algorithm for the common real zero problem

M’Bengue, M’Bagné, Analysis of models for nonlinear dynamic beams with or without damage or frictionless contact

Shawsh, Nart, Relationships among popular interconnection networks and their common generalization

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Bauer, Amy, A multi-scale cell-based model to simulate and elucidate the mechanisms controlling tumor-induced angiogenesis

Cais, Bryden, Correspondences, integral structures, and compatibilities in $p$-adic cohomology

Crown, Sarah, The homology of the cyclic coloring complex of simple graphs

Feng, Hualong, Vortex sheet simulations of 3D flows using an adaptive triangular panel/particle method

Huh, Sukmoon, Moduli spaces of stable sheaves on a plane and an embedded curve

Khan, Rizwanur, Non-vanishing of the symmetric square $L$-function

Maruskin, Jared, On the dynamical propagation of subvolumes and on the geometry and variational principles of nonholonomic systems

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Rong, Feng, Critically finite maps, attractors and local dynamics

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**Western Michigan University (2)**

**DEPARTMENT OF MATHEMATICS**

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Cox, Dana, Understanding similarity: Bridging visual and analytical strategies for proportional thinking

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Kraker, Jessica, Penalized regression methods and validation, with particular focus on chemometric data
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Shao, Yongwu, Topics on dimension reduction
Strief, Jeremy, Bayesian sampling weights: An approximation to the Polya posterior
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Cotl, Diana, Cognitive presence among mathematics teachers: An analysis of tasks and discussions in an asynchronous online graduate course
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Sharp, Julia, New statistical methods for analyzing proteomics data from affinity isolation LC-MS/MS experiments

University of Montana - Missoula (3)
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Milan, David, $C^\ast$-algebras of inverse semigroups
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Department of Mathematics and Statistics
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NEW JERSEY
New Jersey Institute of Technology (4)
Department of Mathematical Sciences
Chandrasekaran, Lakshmi, Role of plasticity in temporal coding of neuronal networks
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Princeton University (9)
Department of Mathematics
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Program in Applied Computational Mathematics
Kryazhimskiy, Sergey, Pathogen evolution under natural selection: The influenza A case study
Rutgers University-Newark (1)

Department of Mathematics and Computer Science

McDonald, Keith Tim, On $p$-adic zeta functions and their derivatives at $s = 0$

NEW MEXICO

New Mexico State University, Las Cruces (1)

Department of Mathematical Sciences

Nousi, Hubert, Stabilization of competition models in the chemostat via feedback linearization

University of New Mexico (2)

Department of Mathematics and Statistics

Beznosova, Oleksandra, Bellman functions, paraproduts, Haar multipliers, and weighted inequalities

Gomez, Ralph, On Lorentzian Sasaki-Einstein geometry

NEW YORK

Clarkson University (4)

Department of Mathematics and Computer Science

Sanitissadeekorn, Naratip, Transport analysis and motion estimation of dynamical systems of time-series data

Shen, Xanyang, Towards a practical solution of handling over/under flow exceptions with alternate number formats

Vora, Mehul, A novel approach to data mining: GA for feature selection

Yao, Chen, Modeling low-dimensional submanifolds in dynamical systems

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Hanson, Nels, Sobolev norms of holomorphic sections and variations of the density of states

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Kontorovich, Alex, The hyperbolic lattice point count in infinite volume with applications to sieves

Li, Qi, Energy functional and their applications to Monge-Ampere equations

Mezgericher, Borislav, Computational aspects of Maass forms for $SL(3,\mathbb{Z})$

Swinarski, David, Geometric invariant theory and moduli spaces of pointed curves

To, Tung, A free boundary problem for the evolution $p$-Laplacian equation with a combustion boundary condition

Yuan, Xinyi, Equidistribution theory over algebraic dynamical systems

Zhang, Bei, Fourier-Jacobi coefficients of Eisenstein series on unitary group

Zickert, Christian, Hyperbolic 3-manifolds and the Cheeger-Chern-Simons class

DEPARTMENT OF STATISTICS

Abayomi, Kobi Ako, Diagnostics for multivariate imputation copula based independent component analysis and a motivating example

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CORNELL UNIVERSITY (12)

CENTER FOR APPLIED MATHEMATICS

Lyles, Danielle, Chromaffin cell excitability and BK channel gating: Data, modeling, simulation, and experiment

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Schmidt, Deena, A mathematical look at DNA regulatory sequence evolution

Sherwood, William Erik, Response in networks of bursting neurons: Modeling central pattern generators

Yamada, Richard Yujiro, Quantitative models of transcriptional elongation

Zhang, Wenjie, Measure of serial dependence and testing for conditional quantile models

DEPARTMENT OF MATHEMATICS

Eshmatov, Farkhod, The Calogero-Moser correspondence for noncommutative deformations of Kleinian singularities

Gyrya, Pavel, Heat kernel estimates for inner uniform subsets of Harnack-type Dirichlet spaces

Johnston, Henri, The trace map and Galois module structure of rings of integers for absolutely abelian number fields

Schweig, Jay, Poset convex-ear decompositions and applications to the flag h-vector

Simeakopoulos, Achilleas, On some classes of Borel fixed ideals and their cellular resolutions

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PHD PROGRAM IN MATHEMATICS

Mumm, Michael, Volume growth and the topology of manifolds with nonnegative Ricci curvature

Nechayeva, Marina, Asymptotics of weighted lattice point counts inside dilating domains

Serme, Abdramane, On iterative refinement/ improvement of the solution to an ill conditioned linear system

Wojciechowski, Radoslaw, Stochastic completeness of graphs

Won, Dong Woock, Word problems on balanced semigroups and groups

Yuan, Shenglan, Dynamics of certain families of transcendental meromorphic functions

Zyman, Marcos, I.A.-automorphisms and localization of nilpotent groups

NEW YORK UNIVERSITY, COURANT INSTITUTE (20)

DEPARTMENT OF MATHEMATICAL SCIENCES

Bramham, Barney, Pseudoholomorphic foliations for area preserving disc maps

Cousot, Laurent, Constructions of martingales and of increasing processes with constrained marginal distributions

Diaz-Alban, Jose, The high frequency and inviscid limit of acoustic waves in a porous medium

Fish, Joel, Compactness results for pseudo-holomorphic curves

Hammond, David, Representing and modeling images with multiscale local orientation

Hasha, Alexander, Gravity wave refraction by three-dimensionally varying winds and the global transport of angular momentum in the atmosphere

Heymann, Matthias, The geometric minimum action method: A least action principle on the space of curves

Hryniewicz, Umberto, Finite energy foliations of convex sets in $R^4$

Huang, Shih-Ting, On the mechanism of forward motion during flapping flight: Numerical simulation by the immersed boundary method

Kadota, Minoru, The Madden-Julian oscillation and its seasonal impact on mid-latitude weather predictability

Kargin, Vladislav, Limit theorems in free probability theory

Koiller, José, Invariant measures for coupled map graphs

Kuptsov, Alexey, REM universality for random Hamiltonians

Lee, Pilhwa, The immersed boundary method with advection-electrodiffusion

Royfman, Roman, Randomly trapped random walks

Shen, Haiping, Two PDE problems from electromagnetics
Spagnolie, Saverio, Flapping, ratcheting, bursting and tumbling: A selection of problems in fluid-body interaction dynamics
Stechmann, Samuel, Models of convectively coupled waves in the tropical atmosphere
Tice, Ian, Lorentz space estimates and applied boundary current dynamics for Ginzburg-Landau
Vilensky, Yevgeny, Large deviation bounds for the totally asymmetric simple exclusion process

Polytechnic University (3)

DEPARTMENT OF MATHEMATICS
Centonze, Paolina, An algebra for access control
Lencner, Jonathan, Sylvester-Gallai results and other contributions to combinatorial and computational geometry
Morgan, Thomas, Concentration and sparsity in space and frequency

Rensselaer Polytechnic Institute (7)

DEPARTMENT OF MATHEMATICAL SCIENCES
Agius, Phaedra, Mathematical models for biological data
Andersen, Timothy, Trapped slender vortex filaments in statistical equilibrium
Dediu, Simona, Analysis of frequency dependent attenuation in shallow water
Gershgorin, Boris, Characterization of thermalized Fermi-Pasta-Ulam chains
Kunapuli, Gautam, A bi-level optimization approach to machine learning
Yan, Fu, Two-stage Nash equilibrium problems
Zhao, Jinye, Recent applications of Nash equilibria

State University of New York at Albany (2)

DEPARTMENT OF MATHEMATICS AND STATISTICS
Clark, Timothy, Poset resolutions of monomial ideals
Madsen, Alpheus, Symbolic powers and Gorenstein grade-3 ideals

State University of New York at Binghamton (6)

DEPARTMENT OF MATHEMATICS AND SCIENCE
Atanasov, Risto, Groups of geometric dimension 2
Chen, Cuixian, Asymptotic properties of the Buckley-James estimator for a bivariate interval censored regression model
Du, Jichang, Covariate-matched estimator of the error variance in nonparametric regression
Loftus, John, Powers of words in language families
Millan-Vossler, Silvia, The Whitehead and the lower algebraic $K$-theory of braid groups on $S^2$ and $\mathbb{R}P^2$
Wassink, Brolyn, Subgroups of R. Thompson’s group $F$ that are isomorphic to $F$

State University of New York at Buffalo (5)

DEPARTMENT OF MATHEMATICS
Han, Xiaoying, Interlayer mixing in thin film growth
Li, Jinglai, Estimating the reliability of optical fiber communication systems
Mastroberardino, Antonio, Three-dimensional equilibrium crystal shapes with corner energy regularization
Yu, Chih-Chien, Conditions for the existence of a steady state solution for a competition system of plankton population

DEPARTMENT OF BIOSTATISTICS
Pak, Youngju, Multivariate linear path models

State University of New York at Stony Brook (31)

DEPARTMENT OF APPLIED MATHEMATICS AND STATISTICS
Brady, Christine, Power analysis of finite mixtures of Poisson distributions
Braunstein, Janet, Analysis of task mapping for parallel supercomputers
Du, Jian, Simulations of magnetohydrodynamics multiphase flow
Fazzari, Melissa, Classification ensembles with applications to genomics
Huang, Zhuying, The power of linkage analysis of a quantitative disease endophenotype
Ji, Chen, Joint analysis of gene and protein data
Jia, Xicheng, Applications of front tracking to multiple scientific problems
Levergne, Paul, Thermonuclear flame studies in rectangular geometry
Lee, Hyunsun, Compressible multiphase multispecies flow models
Li, Yuanhua, Enhanced 3D front tracking method with locally grid based interface
Lim, Noha, Classification ensembles from random partitions using logistic regression models
Ma, Yeming, Step density function and bootstrap resampling
Manu, Manu, Canalization of gap gene expression during early development in Drosophila melanogaster
Masser, Thomas, Breaking temperature equilibrium for mixed cell hydrodynamics
McQuown, Joseph, Multi-scale, geometric algorithm for non-parametric data exploration with an application to genomic data
Polishchuk, Valentia, Non-crossing paths and minimum-cost flows in polygonal domains
Tung, Lin, The impact of genotype misclassification errors on the power to detect a genetic association and gene-environment interaction with Cox proportional modeling
Wang, Shuqiang, Solving elliptic interface problem using mixed finite element method
Wu, Xianfeng, Optimal designs for segmented polynomial models and web-based implementation of optimal design software
Zhang, Yue, Path analysis of multivariate time series data with subject-level covariates

State University of New York at Buffalo (7)

DEPARTMENT OF BIOSTATISTICS
An, Daniel, Complete set of eigenfunctions of the quantum periodic Toda chain
Chen, Je-Wei, Neighborly properties of simple convex polytopes
Chen, Xiaojun, On general chain model of the free loop space and string topology
Dupon, Emiko, A symplectic isometry of a product of projective spaces
Dutta, Satyaki, Rigidity of conformally compact manifolds
Kalafat, Mustafa, Self-dual metrics on 4-manifolds
Li, Tao, A monotonicity conjecture for the entropy of Hubbard trees
Mustopa, Yusuf, The effective cone on symmetric powers of curves
Prince, Tanvir, On the Lego-Teichmüller game for finite G cover
Shu, Yu-Jen, Compact complex surfaces and cscK metrics
Unal, Ibrahim, Phi-critical submanifolds and convexity in calibrated geometry

Syracuse University (13)

DEPARTMENT OF MATHEMATICS
Adamowicz, Tomasz, On the geometry of p-harmonic mappings
Dickerson, David, High school mathematics teachers’ understandings of the purposes of mathematical proof
Kimani, Patrick, Calculus students’ understandings of the concepts of function transformation, function composition, function inverse, and the relationships among the three concepts
Nzuki, Francis, Investigating African American students’ identity and agency in a mathematics and graphing calculator environment at a low-SES school
Struble, Dale, Wavelets on manifolds and multiscale reproducing kernel Hilbert spaces

University of Rochester (7)

DEPARTMENT OF BIOSTATISTICS AND COMPUTATIONAL BIOLOGY
He, Hua, Correcting verification bias in the assessment of the accuracy of diagnostic tests
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DEPARTMENT OF MATHEMATICS

Bian, Ji, The pair correlation of zeros of $\xi^{(k)}(s)$
Liang, Lei, Comparison principle for stochastic heat equations
Lu, Naiji, Models based on pure birth and branching process
Millenovich, Micah, Mean-value estimates for the derivative of the Riemann zeta-function
Xue, Heng, Extensions of stochastic integrals as distributions and applications to SPDEs

NORTH CAROLINA

Duke University (13)

DEPARTMENT OF MATHEMATICS

Belov, Sergei, Breaking in the semiclassical solution of the focusing nonlinear Schrödinger equation
Gratton, Michael, Coarsening of thin fluid films
Narkawicz, Anthony, Cohomology jumping loci and the relative Malcev completion
Nicholas, Michael, A third order numerical method for 3D doubly periodic electromagnetic scattering problems
Robbins, Nicholas, Negative point mass singularities in general relativity
Spivey, Joseph, Twisted cohomology of hyperelliptic mapping class groups
Xu, Feng, SU(3) structures and special Lagrangian geometries

DEPARTMENT OF STATISTICAL SCIENCE

Chu, Jen-Hwa, Bayesian function estimation using overcomplete dictionaries with application in genomics
Kinney, Satkarter, Model selection and multivariate inference using data multiply imputed for disclosure limitation and nonresponse
Pillai, Natesh, Levy random measures: Posterior consistency and applications
Sang, Huiyan, Extreme value modeling with meteorological applications
Shen, Haige, Bayesian analysis in cancer pathway studies and probalistic pathway annotation
Woodard, Dawn, Conditions for rapid and torpid mixing of parallel and simulated tempering on multimodel distributions

North Carolina State University (30)

DEPARTMENT OF MATHEMATICS

Beier, Julie, Crystals for Demazure modules of special linear quantum affine type
Bean, Stacy, On the classification of orbits of minimal parabolic $k$-subgroups acting on symmetric $k$-varieties of $SL(n, k)$
Braun, Tom, High speed model implementation and inversion techniques for smart material transducers
Brown, Jonathan, $N$-symplectic quantization
Cook, James, Foundations of supermathematics with applications to $N = 1$ supersymmetric field theory
David, John, Estimation and shape design: Analysis and applications
De Vault, Kristen, Numerical study of two problems in fluid flow: Cavitation and cerebral circulation
Dillard, Karen, An application of implicit filtering to water resources management
Gong, Yan, Immersed-interface finite-element methods for elliptic and elastic interface problems
Grove, Sarah, Optimization problems in the presence of uncertainty
Osborne, Jason, On geometric control design for holonomic and nonholonomic mechanical systems
Petersen, Richard, Transformation semi-groups over groups
Sweetingham, Kelly, Auxiliary signal design for fault detection in nonlinear systems
Wills, Rebecca, When rank trumps precision: Using the power method to compute Google’s pagerank

DEPARTMENT OF STATISTICS

Chang, Sheng-Mao, A stationary stochastic approximation algorithm for estimation in GLMM
Chiswell, Karen, Model diagnostics for the nonlinear mixed effects model with balanced longitudinal data
Griffith, Emily, Catch curve and capture recapture models: A Bayesian combined approach
Gu, Jiezhu, Nonparametric and semiparametric inference about ROC curves
Huang, Lingkang, Variable selection in multiclass support vector machine and parametric inference about ROC curves
Jones, Martha, A retrospective method for inference on haplotype main effects and haplotype-environment interactions using clustered haplotypes
Liu, Shufang, Modeling mean residual life function using scale mixtures
Li, Xiaomin, Improving the efficiency of test and estimates of treatment effect with auxiliary covariates in the presence of censoring
Nail, Amy, Quantifying local creation and regional transport using a hierarchical space-time model of ozone as function of observed NOx, a latent space-time VOC process, emissions, and meteorology
Ni, Xiao, Variable selection in partial linear models and semiparametric mixed models

Tang, Lihua, “Smooth” inference for clustered survival data
Yang, Hongmei, Variable selection procedures for generalized linear mixed models in longitudinal data analysis
Yoshizaki, Jun, Use of natural tags in closed population capture-recapture studies: Modeling misidentification
Yu, Miao, Quantitative trait loci (QTL) mapping with longitudinal traits
Zhang, Min, Semi-parametric methods for analysis of randomized clinical trials and arbitrarily censored time-to-event data

University of North Carolina at Chapel Hill (24)

DEPARTMENT OF MATHEMATICS

Hague, Charles, Cohomology of flag varieties and the BK-filtration
Jablonski, Michael, Real geometric invariant theory and Ricci soliton metrics on two-step nilmanifolds
Lee, Joohee, Mathematical descriptions of nematic polymers in the monolayer limit
Lin, Zhi, Passive scalar intermittency in random flows
Lindley, Brandon S., Linear and nonlinear shear wave propagation in viscoelastic media
Marangell, Robert, The general quadruple point formula
Richmond, Edward, Recursive structures in the cohomology of flag varieties
Todd, Abby, Inclusion of a glycosylation regulation mathematical model into a contextual metabolic framework
Yang, Gao, Short time behavior of solutions to nonlinear Schrödinger equations in $N$ space dimensions
Yao, Lingxing, Viscoelasticity at microscopic and macroscopic scales characterization and prediction

DEPARTMENT OF STATISTICS AND OPERATION RESEARCH

Bai, Ping, Temporal-spatial modeling in FMRI
Didier, Gustavo, Adaptive wavelet decompositions of time series
Gaydos, Travis, Data representation and basis microarray data and comparison with existing tools
Huang, Tao, Continuous optimization approaches to the quadratic assignment problem
Lee, Chihoon, Long time asymptotics for constrained diffusions in polyhedral domains
Lee, Myung Hee, Continuum direction vectors in high dimensional low sample size data
Liu, Liqiang, Queueing models with workload-based balking applications to call center
Liu, Xuxin, New statistical tools for microarray data and comparison with existing tools

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Case Western Reserve University (9)

Department of Mathematics

Li, Zhuo Bin, Schistosomiasis transmission and control in a distributed heterogeneous human-snail environment in coastal Kenya

Zachlin, Paul, On the field of values of the inverse of a matrix

Department of Epidemiology and Biostatistics

Bajurinwe, Francis, Effectiveness of antiretroviral therapy in rural Uganda

Jun, Gyungah, Identification of genes associated with age-related cataract

Kawanuka, Noah, The effect of HIV-1 subtypes on HIV transmission and disease progression in Rakai district, Uganda

Kou, Tsuyung Doug, Watchful waiting and active surveillance in prostate cancer patients—a population-based study using the SEER-Medicare linked database

Liu, Constance, Evaluating measures of geographic accessibility in urban diabetics in Cuyahoga County

Londono, Douglas, Applications of the Hardy-Weinberg principle to detection of linkage disequilibrium and genotyping errors in the context association studies

Marria, Ruth Ann, Influence of comorbid diseases and health behaviors on clinical characteristics, disability at diagnosis and disability progression in multiple sclerosis

Kent State University (3)

Department of Mathematical Sciences

Abramov, Vilen, Stopping times related to trading strategies

Li, Hongcheng, Multivariate extension of CUSUM procedure

Rollick, Mary Elizabeth, Puzzling over spatial reasoning: A phenomenological study of pre-service elementary teachers

Ohio State University, Columbus (18)

Department of Mathematics

Balachandran, Niranjan, The 3-design problem

Hambrock, Richard, Evolution of conditional dispersal: A reaction-diffusion-advection approach

Hur, Suhkjin, The Kuratowski covering conjecture for graphs of order less than 10

Lennon, Craig, On the likely number of stable marriages

McCain, Christopher, Edge colorings of graphs and multigraphs

Nikolov, Martin, Construction of series of degenerate representations for GSp(2) and PGL(n)

Park, Chongseok, Irregular behavior in an excitatory-inhibitory neural network

Qi, Dongwen, On irreducible, infinite, non-affine Coxeter groups

Schoenecker, Kevin Joseph, An infinite family of anticommutative algebras with a cubic form

Xu, Songyan, Degree 2 curves in the Dwork pencil

University of North Carolina at Charlotte (6)

Department of Mathematics and Statistics

Fan, Kai, A generalized discontinuous Galerkin (DG) method and its applications

Hyun, Jeunggeun, Statistical analysis of tigretroviral therapy in rural Uganda

Sun, Xing, Significance and recovery of parameters with Bayesian prediction methods for non-linear predicaments

Zhou, Jie, High dimensional spatial modeling of extremes: With application to U.S. rainfalls

University of North Dakota State University, Fargo (1)

Department of Mathematics

Matson, Amanda, Results regarding finite generation, near finite generation, and the catenary degree

Ohio University, Athens (1)

Department of Mathematics

Srivastava, Ashish, Rings characterized by properties of direct sums of modules and on rings generated by units

University of Akron (1)

Department of Theoretical and Applied Mathematics

Childers, Carey, Effective properties of a fiber reinforced composite with a functionally graded transition zone

University of Cincinnati (6)

Department of Mathematical Sciences

Camfield, Christopher, Comparison of BV norms in weighted Euclidean spaces and metric measure spaces

Hunter, Tina, Gibbs sampling and expectation maximization methods for estimation of censored values from correlated multivariate distributions

Jiang, Dongming, Objective Bayesian testing and model selection for Poisson models

Oraby, Tamer, Spectra of random block-matrices and products of random matrices

North Dakota State University, North Dakota (3)

Department of Mathematics

McNair, Dawn, Duals of ideals and trace properties in rings with zero divisors

Squartini, Nicola, Global limit theorems for sums of independently identically distributed random variables using quasicumulants

Ohio State University, Columbus (18)

Department of Mathematics

Balachandran, Niranjan, The 3-design problem

Hambrock, Richard, Evolution of conditional dispersal: A reaction-diffusion-advection approach

Hur, Suhkjin, The Kuratowski covering conjecture for graphs of order less than 10

Lennon, Craig, On the likely number of stable marriages

McCain, Christopher, Edge colorings of graphs and multigraphs

Nikolov, Martin, Construction of series of degenerate representations for GSp(2) and PGL(n)

Park, Chongseok, Irregular behavior in an excitatory-inhibitory neural network

Qi, Dongwen, On irreducible, infinite, non-affine Coxeter groups

Schoenecker, Kevin Joseph, An infinite family of anticommutative algebras with a cubic form

Xu, Songyan, Degree 2 curves in the Dwork pencil
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Ruth, Harry L., Jr., Conformal densities and deformations of uniform Loewner metric spaces
Usman, Muhammad, Forced oscillations of the Korteweg-de Vries equation and their stability

University of Toledo (1)
DEPARTMENT OF MATHEMATICS
Liu, Nanshan, Theory and applications of Legendre polynomials and wavelets

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Oklahoma State University (1)
DEPARTMENT OF STATISTICS
Wagler, Amy, Simultaneous inference in generalized linear model settings

University of Oklahoma (3)
DEPARTMENT OF MATHEMATICS
Martinez, Eduardo, Combination of quasiconvex subgroups in relatively hyperbolic groups
Okaya, Pedro, Orbital integral correspondence for the pair $(G_2,Sp(1,\mathbb{R}))$ via the Cauchy Harish-Chandra integral
Seo, Arim, Torus leveling of $(1,1)$-knots

OREGON
Oregon State University (5)
DEPARTMENT OF MATHEMATICS
Strowbridge, Jessica, Middle school teachers’ use of a formative feedback guide in mathematical problem solving instruction
DEPARTMENT OF STATISTICS
Giovanni, Jack, Generalized linear mixed models with censored covariates
Henry, John, Ill, Extreme value index estimation with applications to modeling extreme insurance losses and sea surface temperatures
Irvine, Kathi, Graphical models for multivariate spatial data
Lu, Lin, Unconditional estimating equation approaches for missing data

Portland State University (2)
DEPARTMENT OF MATHEMATICS AND STATISTICS
Ciancetta, Matthew, Statistics students’ reasoning when comparing distributions of data
Noll, Jennifer, Graduate teaching assistants’ statistical knowledge for teaching

University of Oregon (5)
DEPARTMENT OF MATHEMATICS
Archoy, Dawn, Crossed product $C^*$-algebras by infinite group actions with a generalized tracial Rokhlin property
Jordan, Alexander, A super version of Zhu’s theorem
Kronholm, William, The RO(G)-graded Serre spectral sequence
Miller, Matthew, The rational homotopy types of configuration spaces of three-dimensional lens spaces
Wilson, James, Group decompositions, Jordan algebras, and algorithms for $p$-groups

Pennsylvania
Bryn Mawr College (3)
DEPARTMENT OF MATHEMATICS
Battiste Presutti, Cathleen, Determining lower bounds for packing densities of non-layered patterns using weighted templates
Dalton, Jennifer, Legendrian torus links
Teti, Sherry, The existence of elliptic periodic orbits in the smoothed Bunimovich stadium

Carnegie Mellon University (6)
DEPARTMENT OF MATHEMATICAL SCIENCES
Anthony, Barbara, Approximation algorithms for network design with uncertainty
Carita, Gracia, Relaxation in SBV for constrained-valued fields
Cohen, Albert, A probabilistic analysis of grain growth
Towsner, Henry, Some results in logic and ergodic theory
Young, Michael, Triangle problems in extremal graph theory
DEPARTMENT OF STATISTICS
Serban, Mihaela, Derivative pricing under multivariate stochastic volatility models with application to equity options

Lehigh University (3)
DEPARTMENT OF MATHEMATICS
Gorman, Jennifer, Nested traveling salesperson problems
Mormbele, Akongwi Clement, Time dependent and steady state interaction among capillaries in skeletal muscle
Panofsky, Ellen, Graph labeling problems with distance conditions

Pennsylvania State University (18)
DEPARTMENT OF MATHEMATICS
Bang, Seunghoon, Rarefaction wave of pressure-gradient system
Barton, James, Generalized complex structures on Courant algebroids
Choi, Durkbin, Multilevel methods for the generalized finite element method discretizations
Kang, Hanceok, Dynamics of the local map of a discrete Brusselator model
Keith, William, Ranks of partitions and Durfee symbols
Rowell, Michael, The Bailey transform and conjugate Bailey pairs
Stojanovic, Gordana, Embedding with certain non-degeneracy conditions
Wang, Jiakou, Stochastic and deterministic coagulation models, their numerical approximations and applications to cell aggregation
Zhang, Ke, Thermodynamic formalism for maps with inducing schemes

University of Pittsburgh, Pittsburgh (7)
DEPARTMENT OF MATHEMATICS
Day, Jerry, On Banach function spaces and the fixed point property

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Day, Judy, Mathematical approaches to modeling, understanding, and controlling the acute inflammatory response to pathogen and endotoxin

Hancioglu, Baris, Mathematical modeling of virus dynamics in immunology

Mi, Qi, Modelling wound healing in necrotizing enterocolitis and diabetic foot ulcer

Neda, Monika, Numerical analysis and phenomenology of homogeneous, isotropic turbulence generated by higher order models of turbulence

Pejić, Bojana, On the uniqueness of Polish group topologies

Xie, Dejun, Optimal prepayment strategy of mortgages

RHODE ISLAND

Brown University (15)

DEPARTMENT OF MATHEMATICS

Kwon, Hyun-Kyoung, Similarity of operators and geometry of eigenvector bundles

Miller, Stephen Francis, The calculus of equivariant spectra and a classification of degree 2 endofunctors

Stange, Katherine Elisabeth, Elliptic nets and elliptic curves

Wise, Jonathan Samuel Dennis, The genus zero Gromov-Witten theory of $[Sym^2 \mathbb{P}^2]$ and the enumerative geometry of hyperelliptic curves in $\mathbb{P}^2$

Yasufuku, Yu, Vojta’s conjecture and blowups

DIVISION OF APPLIED MATHEMATICS

Chun, Sehun, High-order accurate methods for solving Maxwell’s equations; modeling photonic crystals and thin layer approximations

Dean, Thomas Anthony, A subsolutions approach to the analysis and implementation of splitting algorithms in rare event simulation

Feisli, Matt, Conformal shape representation

Foo, Jasmine, Multi-element probabilistic collocation in high dimensions: Applications to systems biology and physical systems

Keaveny, Eric, Dynamics of structures in active suspensions of paramagnetic particles and applications to artificial micro-swimmers

Leder, Kevin, Large deviations and importance sampling for queueing systems with discontinuous service policies

Li, Zheng, Approximation to random process by wavelet basis

Libertini, Jessica, Determining tumor blood flow parameters using dynamic imaging data

Micheli, Mario, The differential geometry of landmark shape manifolds: Metrics, geodesics, and curvature

Wang, Wei, Multiscale discontinuous Galerkin methods and applications

SOUTH CAROLINA

Clemson University (6)

DEPARTMENT OF MATHEMATICAL SCIENCES

Beeler, Robert, Automorphic decompositions of graphs

Faulkner, Bryan, Estimates related to the arithmetic of elliptical curves

Howell, Jason, Numerical approximation of shear-thinning and Johnson-Segalman viscoelastic fluid flows

Kraft, Christine, Planning, scheduling, and timetabling in a university setting

Senerviratne, Padmapani, Permutation decoding of the codes from graphs and designs

Zhao, Meng, Issues in model selection, minimax estimation, and censored data analysis

Medical University of South Carolina (7)

DEPARTMENT OF BIOSTATISTICS, BIOINFORMATICS & EPIEDEMOLOGY

Hedden, Sarra, Methods in substance abuse clinical trials

Howard, Virginia, Nativity and interstate migration patterns and their effect on stroke risk factors

Jaffa, Miran, Development and application of models for slope estimation for univariate and bivariate longitudinal outcomes in the presence of informative right censoring

Johnson, Shayna, Racial disparities in living kidney donations among South Carolinians: The effect of health conditions, individual behavior, and family attributes

Karpiievitch, Yuliya, Computational tools for MS-based proteomics

Mountford, William, Racial variation in long-term risk of cardiovascular disease mortality with regards to diabetes and hypertension

Rastogi, Amal, Arterial compliance and periodontal inflammation in adults

University of South Carolina (12)

DEPARTMENT OF MATHEMATICS

Jordan, Kelly, The necklace poset is a symmetric chain order

Kozek, Mark, Applications of covering systems of integers and Goldbach’s conjecture with monic polynomials

Owens, Luke, Multigrid methods for two weakly over-penalized interior penalty methods

Rusu, Anamaria, Determining starlike bodies by their curvature integrals

Sanacory, Frank, The richness of the space of operators on a Banach space

DEPARTMENT OF STATISTICS

Adekpedjou, Akim, Estimation of the gap-time distribution with recurrent event data under an informative monitoring period

Autin, Melanie, Nonparametric methods in the analysis of estuarine water quality data

Deutsch, Roland, Benchmark analysis for two predictor variables

Ignatova, Iliana, Multistage samples and the minimum sum method for Medicare fraud investigations

Ni, Jun, Extensions of hierarchical Bayesian shrinkage estimation with applications to a marketing science problem

Quiton, Jonathan, General outlier detection and goodness of fit for recurrent event data

Zhang, Litong, The estimation of multidimensional item response theory model

TENNESSEE

University of Memphis (2)

DEPARTMENT OF MATHEMATICAL SCIENCES

Wheeler, Jeffrey Paul, The Cauchy-Davenport theorem and the Erdős-Heilbronn problem for finite groups

Zhang, Lijian, Stochastic and state space models of carcinogenesis with applications

University of Tennessee, Knoxville (2)

DEPARTMENT OF MATHEMATICS

LaGrange, John, Zero-divisor graphs, commutative rings of quotients, and Boolean algebras

Phillippi, R. David, A comparison of the deck group and the fundamental group of uniform spaces obtained by gluing

Vanderbilt University (7)

DEPARTMENT OF MATHEMATICS

Callender, Hannah, Mathematical modeling of species-specific diacylglycerol dynamics in the RAW 264.7 macrophage following P2Y2 receptor activation by uridine 5’-diphosphate

Hinow, Peter, Partial differential equation models for intranuclear diffusion, inverse problems in nanobiology and cell cycle specific effects of anticancer drugs

Jennings, David, Topological algebras and q-undemanding varieties

Lambert, Thomas Paul, On the classification of closed flat four-manifolds

Nowak, Piotr Wojciech, Property A as metric amenability and its applications to geometry

Spakula, Jan, K-theory of uniform Roe algebras
Yattsselev, Maxym Leonidovich, Non-Hermitian orthogonality and meromorphic approximation

TEXAS

Baylor University (2)

DEPARTMENT OF MATHEMATICS

Jackson, Billy Joe, A general linear systems theory on time scales: Transforms, stability, and control
Rogers, James W., Adaptive methods for the Helmholtz equation with discontinuous coefficients at an interface

Rice University (16)

DEPARTMENT OF COMPUTATIONAL AND APPLIED MATHEMATICS

Castillo, Edward, Optical flow methods for the registration of compressible flow images and images containing large voxel displacements of artifacts
Eydelzon, Anatoly, A study on conditions for sparse solution recovery in compressive sensing
McClosky, Benjamin, Independence systems and stable set relaxations
Turner, Jesse, Multi-scale behavior in chemical reaction systems: Modeling, applications, and results

DEPARTMENT OF MATHEMATICS

Jennings, Landan, Sufficient conditions for Hamiltonian paths
Jorgensen, Jamie, Surface homeomorphisms that do not extend to any handlebody and the Johnson filtration
Ralston, David, Heaviness: An extension of a lemma of Yuval Peres

Dartment of Statistics

Fox, Garrett, A Bayesian hierarchical model for detecting associations between haplotypes and disease using unphased SNPs
Gershman, Jason, Classification of time-course gene expression array data

DEPARTMENT OF STATISTICS

Jabri, Hannah, Term structures and conditional probabilities of corporate default in an incomplete information setting

Kyj, Lada, Estimating realized covariance using high frequency data

NOYOLO-MARTINEZ, Josue, Investigation of the Tau-leap method for stochastic simulation

Papkov, Galen, Locally-adaptive polynomial-smoothed histograms with application to massive and pre-binned data sets

Williams, Talithia, A dynamic spatio-temporal model for real-time estimation of rainfall data

Southern Methodist University (5)

DEPARTMENT OF MATHEMATICS

Cao, Guanghua (Kenny), Pricing and risk management of variable annuities and equity indexed annuities
Chaturvedi, Praveen, Single phase multicomponent flow simulation in porous media
Lam, Kwan, Pattern formation in nonlinear chemical systems

DEPARTMENT OF STATISTICS

Roberto, Steve, Generalizations and applications of linear chirp stationary processes
Xu, Mengyuan, Filtering analysis of non-stationary time series by time deformation

Texas A&M University (17)

DEPARTMENT OF MATHEMATICS

Abbott, Kevin, Applications of algebraic geometry to object/image recognition
Bondarenko, levgen, Groups generated by bounded automata and their Schreier graphs
Celik, Mehmet, Contributions to the compactness theory of the Neumann operator
Dobrev, Veselin, Preconditioning of discontinuous Galerkin methods for second order elliptic problems
Dostert, Paul, Multiscale simulation methods for stochastic porous media flows and applications
Fuselier, Jenny, Hypergeometric functions over finite fields and relations to modular forms and elliptic curves
Ivanov, Nikolay, On the structure of some free products of C*-algebras
Kannan, Lavyanya, Densities in graphs and matroids
Kostic, Dimitrije, Graph searching and a generalized parking function
Moreira, Rivera, Products of representations of symmetric group and non-commutative versions
Ruffo, James, A straightening law for the Drinfeld d Lagrangian Grassmannian
Zheng, Bentuo, Embeddings and factorizations of Banach spaces

DEPARTMENT OF STATISTICS

Gold, David, Bayesian learning in bioinformatics
Jin, Lei, Generalized score tests for missing covariate data
Lee, Sang Han, Estimating and testing of functional data with restrictions
Liu, Lian, Topics in measurement error and missing data problems
Liu, Yingxue, Estimation of circadian parameters and investigation in cyanobacteria via semiparametric varying coefficient periodic models

Texas Tech University (6)

DEPARTMENT OF MATHEMATICS AND STATISTICS

Cupidon, Jean Rene, Functional data analysis
Ji, Xiao Yi, Frechet differentiation of functions of operators with application to functional data analysis
Pang, Wai Kong Johnny, Some statistical methods for directly and indirectly observed functional data
Talukder, Mohammed H., Order-restricted analysis for repeated measures
Wang, Keyi, Variance reduction methods based on smoothing spline estimator for non-parametric regression model
Wesley, Curtis, Discrete time and continuous time epidemic models with applications to the spread of hantavirus in wild rodent and human populations

University of Houston (5)

DEPARTMENT OF MATHEMATICS

Linsenmann, Christopher, Adaptive multi-level-based shape optimization for stationary Stokes flows by path-following primal-dual interior point methods
Gucciardi, Barbara, Subgroupoids in coupled cell systems
Hao, Jiao, Numerical methods and simulations for fluid/particle interactions: Sedimentation in a viscoelastic fluid and cell lifting in shear flow
Nguyen, Ha, Whitney regularity for solutions to the Livsic coboundary equation on Cantor sets in dimension three
Patel, Swabhimita, Global existence for solutions of diffusively coupled reaction-diffusion equations

University of North Texas (2)

DEPARTMENT OF MATHEMATICS

Atim, Alexander, Uniqueness results for the infinite unitary, orthogonal and associated groups
Padipadde, Sridevi, Localized radial solutions for nonlinear p-Laplacian equation in R^n

University of Texas at Arlington (6)

DEPARTMENT OF MATHEMATICS

Badiu, Florin, Study of multiple impacts of a rigid body with a flat surface
Busse, Theresa, Generalized inverse scattering transform for the nonlinear Schrodinger equation
Martines, Ian, Mathematical analysis of allelopathy and resource competition models
Mo, Min, Estimating absolute transcript concentration for microarrays using Langmuir adsorption theory
Stern, Paul, On progenitively Koszul commutative rings

NOTICES OF THE AMS
Xie, Peng, Uniform compact/noncompact schemes for shock/boundary layer interaction

University of Texas at Austin (19)

DEPARTMENT OF MATHEMATICS

Carreon, Fernando, Singular limits of reaction diffusion equations of KPP type in an infinite cylinder
Chan, Chi Hin, The De Giorgi method as applied to the regularity theory of incompressible Navier-Stokes equations
Cozzi, Elaine, Incompressible fluids with vorticity in Besov spaces
Czubak, Magdalena, Well-posedness for the space-time monopole equation and Ward wave map
Garza, John, The height in terms of the normalizer of a stabilizer
Ghosh, Robin, Incompleteness of the Giulietti-Ughi arc
Hammond, John, Regular realizations of \( p \)-groups
Hitt, Laura, Genus 2 curves in pairing-based cryptography and the minimal embedding field
Klonoff, Kevin, An index theorem in differential K-theory
Luxton, Mark, The log canonical compactification of the moduli space of six lines in \( \mathbb{P}^3 \)
Moreira, Diego, Least supersolution approach to regularizing elliptic free-boundary problems
Samuels, Charles, Auxiliary polynomials and Weil height
Van Horn-Morris, Jeremy, Constructions on open decompositions
Young, Andrea, Modified Ricci flow on a principal bundle

INSTITUTE FOR COMPUTER ENGINEERING AND SCIENCES

Bauman, Paul, Adaptive multiscale modeling of polymeric materials using goal-oriented error estimation, Arlequin coupling and goals algorithms
Cottrell, John, Isogeometric analysis and numerical modeling of the fine scale fields within the variational multiscale method
Khandelwal, Shweta, Ecology of infectious diseases with contact and percolation theory
Sokolova, Ekaterina, Indifference valuation in non-reduced incomplete models with a stochastic risk factor
Su, Qimou, Essays on derivatives pricing in incomplete financial markets

University of Texas at Dallas (2)

DEPARTMENT OF MATHEMATICAL SCIENCES

Sahi, Ramanjot, Tangle replacement moves on links

Yin, Kunshan, A Bayesian paradigm for method comparison studies

UTAH

Brigham Young University (1)

DEPARTMENT OF MATHEMATICS

Groul, Jason, The minimum rank problem over finite fields

University of Utah (8)

DEPARTMENT OF MATHEMATICS

Chamberlain, Erin, Modules with prescribed intersection properties
Iwao, Yoshihiro, Invariance of Gromov-Witten theory under a simple flop
McNulty, Meagan, Mathematical models of respiratory inflammation
Nesse, William, Random fluctuations in dynamical neural networks
Song, Qiang, Questions in local cohomology and tight closure
Thompson, Joshua, Graffing real complex projective structures
Todorov, Gueorgui, Pluricanonical map on threefolds of general type and the Gromov-Witten potential of the local
Zhang, Da Li, Inverse electromagnetic problem for microstructure media

VERMONT

University of Vermont (1)

DEPARTMENT OF MATHEMATICS AND STATISTICS

Mahassen, Hania, Weakly and strongly correlated two-dimensional layered Coulomb systems

VIRGINIA

Old Dominion University (3)

DEPARTMENT OF MATHEMATICS AND STATISTICS

Parrish, Sarah, Analysis and application of perfectly matched layer absorbing boundary conditions for computational aeroacoustics
Sabo, Roy, Modeling and efficient estimation of intra-family correlations
Thomas, Howard, II, On the use of quasi-Newton methods for the minimization of convex quadratic splines

University of Virginia (6)

DEPARTMENT OF MATHEMATICS

Bociu, Lorena, Existence, uniqueness and blow-up of solutions to wave equations with supercritical boundary interior sources and damping
Cramer, Wesley, Cyclotomic Specht filtrations and Delta filtrations

WASHINGTON

University of Washington (32)

DEPARTMENT OF APPLIED MATHEMATICS

Bale, Brandon, Modeling the dynamics and stability of mode-locked fiber lasers
Gomez, Miguel, Optimization-based analysis of rigid mechanical systems with unilateral contact and kinetic friction
Jeon, Jihyon, Mathematical modeling of pre-malignant lesions in multistage carcinogenesis
Patterson, Matthew, Computing the Abel map and the Riemann constant vector
Seo, Gunog, The dynamics of simple predator-prey models with Holling functional responses
Srivastava, Santosh, Bayesian minimum expected risk estimation of distributions for statistical learning
Washington State University (2)

Department of Mathematics

Hsu, Chia-Yu, A 3D bacterial swimming model coupled with external fluid mechanics using the immersed boundary method

Jeon, Jong-Sam, Powerful ray patterns

University of Wisconsin, Milwaukee (9)

Department of Mathematical Sciences

Dudek, John, A mathematical investigation of solutions for the two-component order parameter in the Ginzburg-Landau equations of superconductivity

Lee, Jae Kook, Some covers and relative covers of modules

Lehrke, Stephen, Asymptotic properties of the MLE of parameters of the multivariate O-U process

May, Margaret, Finite dimensional Z-compactifications

Mooney, Christopher, On boundaries of CAT(0) groups

Schoeder, Timothy, l2-homology of Coxeter groups

Sears, Christopher, Monotonicity of kneading sequences in families of one-kink maps

Shomberg, Asta, Estimation of false discovery rate under parametric assumptions with application to DNA microarrays

Zaidan, Younis, Analysis of Maxwell-systems with various nonlinear polarization mechanisms

WISCONSIN

Medical College of Wisconsin (2)

Division of Biostatistics

Liu, Jingxia, Utilizing propensity scores to test treatment effects in survival data

Zhang, Yinghua, Selecting between the Cox and Aalen models for right censored survival data
Doctoral Degrees Conferred 2007–2008

Supplementary List

The following list supplements the list of thesis titles published in the February 2009 Notices, pages 281–301.

ALABAMA

University of Alabama at Birmingham (3)

Biostatistics

Ayanlowo, Ayanbola, Design of Phase II & III clinical trials.

Jones, Tamekia, A statistical approach identifying and limiting the effect of influential observations.

Sawrie, David, Preemptive power for the consulting statistician: novel application of internal pilot design and information based monitoring systems.

CALIFORNIA

Naval Postgraduate School (1)

Applied Mathematics

Phillips, Donovan, Mathematical modeling and optimal control of battlefield information flow.

University of California, Berkeley (24)

Mathematics

Al-Aidroos, Jameel, Perfect pairings in the tautological rings of the moduli spaces of stable curves.

Berg, Jennifer Danae, On the center of the lie superalgebra $q(n)^{(2)}$.

Burstein, Richard David, Hadamard subfactors of Bisch-Haagerup type.


Clayton, Aubrey, Mutation-selection balance for polynomial selection costs and matrix-valued orthogonal polynomial.

Closson, Erik, The solovay sequence in derived models associated to mice.

Courtney, Dennis, Asymptotic lifts of UCP semigroups.

Dan-Cohen, Elizabeth, Structure of root-reductive lie algebras.

Fern, Jesse, Calculations of quantum error correction and fault tolerance thresholds.

Freeman, David Stephen, Constructing Abelian varieties for pairing-based cryptography.

Gray, Aaron, Functionality of the logarithmic Riemann-Hilbert.

Han, Fei, Supersymmetric QFTS, super loop spaces and Bismut-Chern character.

Huggins, Peter, Polytopes in computational biology.

Jetchev, Dimitar, CM points, selmer groups, component groups and euler systems.

Kirkpatrick, Kay, Rigorous derivation of the Landau equation in the weak coupling limit.

Lebow, Eli, Embedded contact homology of 2-torus bundles over the circle.

Levine, Lionel, Limit theorems for internal aggregation models.

Mihaescu, Radu, Distance methods in phylogeny.

Morton, Jason, Geometry of conditional independence.

Nachmias, Asaf, Percolation on finite groups.

Schlutenberg, Farmer, Measures in mice.

Tingley, Peter, Some results on the crystal commutor and affine $sl(n)$ crystals.

Yao, Jianguang, Codimension one embedding of manifolds.

Zywina, David, The large sieve and Galois representations.

University of California, Riverside (4)

Mathematics

McLoughlin, Peter, When is the adjoint of a finite-rank minimal projection also minimal.

Troutman, Tiffany, Infinity-harmonic functions, maps and morphisms of Riemannian manifolds.

Wrkich, James, Solvability of some inhomogeneous parabolic.

Yao, Chui Zhi, Discrete logarithm and related problems in cryptography.

University of California, Santa Barbara (10)

Mathematics

Barbaro, Alethea, An interacting particle model for the migrations of pelagic fish.

Haynal, Heidi, PI degree parity in $q$-skew polynomial rings.

Kolpas, Allison, Coarse-grained analysis of collective motion in animal groups.

Learned, John, Graphical methods in representation theory.

Levitt, Rena, Biautomaticity and nonpositively curved spaces.

Macauley, Matthew, Coexter theory and discrete dynamical systems.

Rehkopf, Edward, Reduction of quadratic forms over polynomial rings.

Sentinella, Robert, Multi-scale modeling of liquid crystal-line polymers.

Tretewey, Peterson, Conformal curvature and one-relator group theory.

Wiley, Chad, Nugatory crossings in closed 3-braid diagrams.

COLORADO

University of Colorado, Boulder (10)

Applied Mathematics

Kurcz, Christopher, Fast convolutions with Helmholtz Green’s functions and radially symmetric band-limited kernels.

Lim, Jisun, The qualitative study of a chemical reaction diffusion system and some integral equations.
Mao, Wenjin, Dimension jumping and auxiliary variable techniques for Markov chain Monte Carlo algorithms.

Nolting, Joshua, Efficiency-based local adaptive refinement for FOSLS finite elements.

Pietarila-Graham, Jonathan, Regularizations as subgrid models for turbulent flows.

Piret, Cecile, Analytical and numerical advances in radial basis functions.

Rojiiraphisal, Thaned, A study of the variability of the North Indian ocean.

Wang, Jian, Recovering Bayesian networks with applications to gene regulary networks.

Watson, Michael, A study of rotationally constrained convection in tall annular geometries.

Zuev, Julia, Recent advances in numerical PDEs.

University of Denver (1)

Mathematics

Nagrath, Aditya, Properties of scattered lattices, and the introduction of a meet semilattice duality.

CONNECTICUT

Wesleyan University (1)

Mathematics and Computer Science

Babichev, Andrey, Speedups of ergodic group extensions.

Yale University (4)

Mathematics

Liu, Qihou, On the colored Jones polynomials of certain links.

Maity, Rachel, Mathematically rigorous quantum field theories with a non-linear normal ordering of the Hamiltonian operator.

Patnaik, Manish, Geometry of loop Einstein series.

Zhu, Minxian, Vertex operator algebras arising from affine lie algebras.

IDAHO

Idaho State University (1)

Mathematics

Lundeen, Suzanne, The finite reflection group $H_4$.

ILLINOIS

Illinois State University (5)

Mathematics

Hofbauer, Pamela, Characterizing high school students' understanding of the purpose of graphical representations.

Knapp, Andrea, Prompting mathematics teacher development through dynamic discourse.

Naresh, Nirmala, Workplace mathematics of the bus conductors in Chennai, India.

Simmons, Eugene, The effects of using a QAR reading strategy to improve students' conceptual understanding.

Thompson, Kevin, Students' understanding of trigonometry enhanced through the use of a real world problem: improving the instructional sequence.

KENTUCKY

University of Kentucky (5)

Statistics

Hersh, Matt, Identification of multiple functional peaks resulting from a common peak shape function.

Li, Hao, Identifying gene expression patterns in oligonucleotide microarray experiments.

McClintock, Scott, Stochastic securities market model with no short selling.

Vandyke, Rhonda, Classification of self-modeling regressions.

Zhu, Hua, Smoothed empirical likelihood for quantiles and some variations/extension of empirical likelihood for Buckley-James estimator.

MARYLAND

John Hopkins University (1)

Applied Mathematics and Statistics

Tan, Liang, Numerical methods for multi-dimensional American options.

University of Maryland (23)

Applied Mathematics and Computer Science

Bard, George, Algorithms for solving linear and polynomial systems over finite fields with applications to cryptoanalysis.

Chakraborty, Parvendu, Molecular dynamic studies of organic coated nano aerosols.

Cheng, Bin, On the rotational shallow water and Euler equations.

Finkbiner, Amy, Global phenomena from local rules: Peer-to-peer networks and discrete crystal steps.

Ganesh, Nadarajasundaram, Small area estimation and prediction problems.

Heath, Jeffery, Global optimization of finite mixture models.

Johnson, Hunter, Definable families of finite VC dimension.

Li, Huilin, Small area estimation: an empirical best linear unbiased prediction approach.

Long, Nicholas, Involutions of shift of finite type: fixed point shifts, orbit quotients, and the dimension representation.

Lu, Guanhua, Asymptotic theory in multiple-sample semiparametric density ratio models and its applications to mortality forecasting.

Mai, Yabing, Comparing survival distributions in the presence of dependent censoring: asymptotic validity and bias corrections of the Logrank test.

Min, Min, Asymptotic normality in generalized linear mixed models.

O'Hara, Michael, Adiabatic quantum computation: noise in the adiabatic theorem and using the Jordan-Wigner transform to find effective Hamiltonians.

Oktay, Onur, Frame quantization theory and equiangular tight frames.

Smetaniouk, Taras, Pricing variance derivatives using hybrid models with stochastic interest rates.
Tate, Calandra, An investigation of the relationship between automated machine evaluation metrics and user performance on an information extraction task.

Truman, Kathryn, Analysis and extension of non-commutative NTRU.

Wei, Dongming, Critical thresholds in Eulerian dynamics.

Wen, Shihua, Semi-parametric cluster detection.

Widemann, David, Dimensionality reduction for hyperspectral data.

Yu, Tinghui, Estimation theory of a location parameter in small samples.


NEW HAMPSHIRE

Dartmouth College (6)

MATHEMATICS

Andersen, Brooke, Distinguishing complete sets with respect to strong notions of reducibility.

Bayless, Jonathan, Carmichael's conjecture and the unit group function.

Bourke, John, Results of off-branch numbers.

Henrich, Allison, A sequence of degree one Vassiliev invariants for virtual knots.

Malandro, Martin, Fast Fourier transforms for inverse semigroups.

Pollack, Paul, Prime numbers and prime polynomials.

NEW JERSEY

Rutgers University - Newark (2)

MATHEMATICS AND COMPUTER SCIENCE

McDonald, Keith Tim, On $p$-adic zeta functions and their derivatives at $s=0$.

Min, Honglin, Hyperbolic graphs of surface groups.

Rutgers The State University of New Jersey (11)

MATHEMATICS

Bao, ShiTing, Gradient estimates for the conductivity problems.

Coskey, Samuel, Descriptive aspects of torsion-free abelian groups.

Costello, Kevin, Ranks of random matrices and graphs.

Duffy, Colleen, Graded traces and irreducible representations of Aut (A(Gamma)) acting on graded A(Gamma) and A(Gamma) dual.

Guo, Ren, Parameterizations of Teichmüller spaces of surfaces with boundary.

Hansen, Derek, Asymptotic perturbation formulas for the effect of scattering by small objects: an analysis over a broad band of frequencies.

Kennedy, Benjamin, Differential delay equations with several fixed delays.

Lins, Brian, Asymptotic behavior and Denjoywolff theorems for Hilbert metric nonexpansive maps.

Phan, Tuoc Van, On global existence of solutions to a cross-diffusion system.

Speck, Jared, On the questions of local and global existence for the hyperbolic PDEs occuring in some relativistic theories of gravity and electromagnetism.

Stucchio, Christopher, Selected problems in quantum mechanics.

NEW YORK

Columbia University (3)

BIOSTATISTICS

Chang, Chung, Statistical analysis for neuroimaging data.

Xu, Qiang, Existing approaches and a new weighted method for cox regression in the presence of missing covariates.
Zhang, Hui, Handling missing data without specifying auxiliary models.

PENNSYLVANNIA

University of Pennsylvania (2)

Statistics

Ghia, Kartikeya, Statistical applications in finance: permutation tests, regression trees, and normality tests.

Shirley, Kenneth, Hidden Markov models for alcoholism treatment trial data.

University of Pittsburgh (3)

Statistics

Iosif, Ana-Maria, Analysis of longitudinal random length data.

Lopez, Adriana, Markov models for longitudinal course of youth bipolar disorder.

Wu, Qiang, Clustering methodologies with applications to integrative analyses of post-mortem tissue studies in schizophrenia.

UTAH

Utah State University (1)

Mathematics and Statistics

Cook, Lawrence, Small sample methods for the analysis of clustered binary data.