Doctoral Degrees Conferred

2011–2012

ALABAMA

Auburn University (12)

DEPARTMENT OF MATHEMATICS AND STATISTICS

Duncan, Bryce, Bell numbers of graphs

Gong, Yankun, Rank based methods for repeated measurement data

Kwessi Nyandjou, Eddy, Efficient rank regression with wavelet estimated scores

McClanahan, Stacy, The metamorphosis of 2-fold triple systems into maximum packings of $2K_n$ with 4-cycles

Noble, Matthew, Colorful results on Euclidean distance graphs and their chromatic numbers

Rogers, Julie, Generalizing clatworthy group divisible designs

Scible, Greggory, Finitely generated modules over noncommutative chain rings

Sehgal, Nidhi, Cycle systems

Varagona, Scott, Simple techniques for detecting decomposability or indecomposability of generalized inverse limits

Yin, Shuxin, Nonparametric methods for classification and related feature selection procedures

Yuceturk, Guven, Gregarious path decomposition of some graphs

Zhang, Aijun, Spatial spread and front propagation dynamics of nonlocal monostable equations in periodic habitats

University of Alabama (5)

DEPARTMENT OF MATHEMATICS

Bishop-Ross, Rachel, The road trip property: An aid in classifying groups with quadratic isoperimetric inequalities

Ginting, Maydison, A strategy to control the running risk in hedging a long-term supply commitment with short-dated futures contracts

Green, Michael, Graphs of groups

Winkles, Nathan, Performance evaluation of inexact GMRES

Yao, Pengfei, Matched interface boundary (MIB) enhanced multiresolution time-domain (MRTD) algorithm for electromagnetic simulations

University of Alabama at Birmingham (5)

DEPARTMENT OF BIOSTATISTICS

Bentley, John, An examination of statistical methods for longitudinal mediation modeling

Birkner, Thomas, Hierarchical and Bayesian approaches to estimating prevalence based on pool screening

Li, Jun, Bayesian hierarchical generalized linear models for detecting (rare) haplotype-haplotype and haplotype-environment interactions in genetic association analysis

Phadnis, Milind, Robust non-parametric regression approach for competing cause censored survival mortality data with covariates

Wineinger, Nathan, Statistical methods in the analysis of copy number variation data

University of Alabama-Huntsville (3)

DEPARTMENT OF MATHEMATICAL SCIENCES

Jackson, Tobin, Convergence analysis of fully discrete finite element approximations for an unsteady doubly diffusive convection model

O'Neal, Frank Allen, Neighborhood sum parameters on graphs

Wu, Yinshu, Traveling wave fronts for a diffusive competition model with time delay

University of Alabama-Tuscaloosa (2)

INFORMATION SYSTEMS, STATISTICS, AND MANAGEMENT SCIENCE DEPARTMENT

Dovoedo, Yinaze, Contributions to outlier detection methods: Some theory and applications

Yuan, Fang, Construction of estimation-equivalent second-order split-split-plot designs

ARIZONA

Arizona State University (13)

SCHOOL OF HUMAN EVOLUTION AND SOCIAL CHANGE

Kareva, Irina, Niche construction, sustainability and evolutionary ecology of cancer

Lopez, Raquel, Integrability of quadratic non-autonomous quantum linear systems

Morin, Benjamin, Computational and analytical mathematical techniques for modeling heterogeneity

Soho, Edme, Immune response in the study of infectious diseases (co-infection) in an endemic region

Torres-Garcia, Griselle, Size structured epidemic models

SCHOOL OF MATHEMATICAL AND STATISTICAL SCIENCES

Bland, Adam, Reachability in K-colored tournaments

Chang, Shaojie, Computational study of the cone-horizontal cell feedback mechanism in the outer-plexiform layer of cat retina

DeBiasio, Louis, Optimal degree conditions for spanning subgraphs

Han, Zhun, A chemostat model of bacteriophage-bacteria interaction with infinite distributed delays

Karl, Andrew, A correlated random effects model for nonignorable missing data in value-added assessment of teacher effects

Milovanovic, Jelena, Chi-square orthogonal components for assessing goodness-of-fit of multidimensional multinomial data

Sanborn, Barbara, Symplectic topology and geometric quantum mechanics

The above list contains the names and thesis titles of recipients of doctoral degrees in the mathematical sciences (July 1, 2011, to June 30, 2012) reported in the 2012 Annual Survey of the Mathematical Sciences by 197 departments in 143 universities in the United States. Each entry contains the name of the recipient and the thesis title. The number in parentheses following the name of the university is the number of degrees listed for that university.

Weber, Eric, Students' ways of thinking about two-variable functions and rate of change in space

University of Arizona (11)

DEPARTMENT OF MATHEMATICS

Gorlina, Yuliya, Weighted Delaunay triangulations of piecewise-flat surfaces

Huang, Chuan, Novel methods for T_2 estimation using highly undersampled radial MRI data

Johnson, Matthew, A classification of all Hecke eigenform product identities

Lin, Lizhen, Nonparametric inference for bioassay

Petrov, Aleksandar, On A-expansions of Drinfeld modular forms

Piercey, Victor, Resolutions of collinearity among four points in the complex projective plane

Schettler, Jordan, The change in lambda invariants for cyclic p-extensions of $\mathbb{Z}_p$-fields

PROGRAM IN APPLIED MATHEMATICS

Chiquete, Carlos, Stability and receptivity of idealized detonation

Durickovic, Bojan, Waves on elastic rods and helical spring problems

Gemmer, John, Swelling thin elastic sheets and the hyperbolic plane

Xiong, Hui, Nonparametric statistical approaches for benchmark dose estimation in quantitative risk assessment

ARKANSAS

University of Arkansas at Fayetteville (2)

MATHEMATICAL SCIENCES DEPARTMENT

Griffin, Heather, Pointwise Schauder estimates for parabolic equations in Carnot groups

Rosell, Pablo, Limiting behavior of nondeterministic fillings of the torus by colored squares

CALIFORNIA

California Institute of Technology (7)

DEPARTMENT OF APPLIED AND COMPUTATIONAL MATHEMATICS

Hu, Xin, Multiscale modeling and computation of 3D incompressible turbulent flows

Huang, Jinghao, Discrete differential form subdivision and vector field generation over volumetric domain

Lintner, Stephane, High-order integral equation methods for diffraction problems involving screens and apertures

DEPARTMENT OF MATHEMATICS

Simanek, Brian, Asymptotic properties of orthogonal and extremal polynomials

Venka Teswaran, Vidya, Vanishing results for Hall-Littlewood polynomials

Walker, Alden, Surface maps into free groups

Wu, Yitao, On the p-adic local invariant cycle theorem

Claremont Graduate University (7)

SCHOOL OF MATHEMATICAL SCIENCES

Ambrose, Martin, Adaptive Monte Carlo algorithms for continuous and discrete transport problems

Caballero, David, Discrete variable representation of the angular variables in quantum three-body scattering

Chambers, Dwayne, Topological symmetry groups of complete graphs

Jalali, Sammuel, Wireless channel equalization in digital communication systems

Paladugu, Sri, Functional inference from molecular networks systems biology

Torres Barba, David, Assessment of functional activity in isolated cardiomyocytes using computational methods

Vochanel, Michael, Problems in GPS accuracy

Stanford University (22)

DEPARTMENT OF MATHEMATICS

Bormashenko, Olena, Permutations with interval restrictions

Cheng, Man Chuen, A duality theorem for Deligne-Mumford stacks with respect to Morava K-theory

Chowdhury, Atoshi, Compactifying Picard stacks over degenerations of surfaces

Fadnavis, Sukhada, Graph colorings and graph limits

Fong, Tsz Ho, New results on the singularity analysis of the Kaehler-Ricci flow

Georgieva, Penka, Orientability of moduli spaces and open Gromov-Witten invariants

Hough, Robert, Distribution problems in number theory

Krummel, Brian, Existence and regularity of branched minimal submanifolds

Lee, Jonathan, Stratifications and equivalent cohomology of spaces of upper-triangular square-zero matrices

Li, Man Chun, On a free boundary problem for embedded minimal surfaces and instability theorems for manifolds with positive isotropic curvature

Li, Xiannan, The behavior of L-functions at the edge of the critical strip and applications

Nguyen, Dung, Characteristic numbers of genus one space curves

Sher, David, Conic degeneration and the determinant of the Laplacian

Shkolnikov, Mykhaylo, Competing particle systems and their applications

Smith, Aaron, Some analyses of Markov chains by the coupling method

DEPARTMENT OF STATISTICS

Chen, Su, Consistence and convergence rate of Markov chain quasi Monte Carlo with examples

Li, Jun, Differential expression identification and false discovery rate estimation in RNA-Seq data

Rivera, Camilo, Detection of bumps on the intensity function of an inhomogeneous Poisson process

Shen, Jeremy, Change-point models on point processes and applications in genomics

Sun, Yunting, On latent systemic effects in multiple hypotheses

Tibshirani, Ryan, The solution path of the generalized lasso

Zhang, Feng, Cross-validation and regression analysis in high-dimensional sparse linear models

University of California, Berkeley (31)

DEPARTMENT OF MATHEMATICS

Antunovic, Tonci, Two probabilistic models of competition

Bayer, Robertson, Low for speed

Brown, Morgan, Cox rings and partial amplitude

Chan, Melody, Tropical curves and metric graphs

Chen, Yann-shin, Impulse control and optimal stopping

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

Doker, Jeffrey, Geometry of generalized permutohedra

Goerner, Matthias, Visualizing regular tesselations: Principal congruence links and equivariant morphisms from surfaces to 3-manifolds

Isaacson, Erica, Some periodic solutions of the two-dimensional Stokes-Oldroyd-B system with stress diffusion

Jubin, Benoit, The tangent functor monad and folations

Kleinman, Aaron, Combinatorial phylogenetics for reconstruction algorithms

Lee, Chul-hee, Algebraic structures in modular q-hypergeometric series

Liu, Yi, Nonzero degree maps between three dimensional manifolds

Marks, Andrew, Recursion theory and countable Borel equivalence relations

Penneys, David, Planar structure for inclusions of finite von Neumann algebras

Pomerleano, Daniel, Curved string theory

Qvilodran, Rene, On extremizers for adjoint Fourier restriction inequalities and a result in incidence geometry

Rincon, Edgard, Tropical linear spaces and applications

Rizzolo, Douglas, Scaling limits of random trees

Schaeffer, George, The Hecke stability method and ethereal forms

Slofstra, William, Strong Macdonald theory and the Brylinski filtration for affine Lie algebras

Ventura, Ivan, Applications of semiclassical analysis to partial differential equations

Wilder, Alan, Smooth field theories and homotopy field theories

Zhou, Junjie, Essays on microeconomics

Department of Statistics

Lim, Chinghway, Modeling high dimensional data: Prediction, sparsity, and robustness

Miratrix, Luke, Three statistical methods for the social sciences

Uhler, Caroline, Geometry of maximum likelihood estimation in Gaussian graphical models

Xu, Ying, Regularization methods for canonical correlation analysis, rank correlation matrices and Renyi correlation matrices

Group in Biostatistics

Brooks, Jordan, Super learner and targeted maximum likelihood estimation for longitudinal data structures with applications to atrial fibrillation

Jamshidian, Farid, Applications to semiparametric estimation methods in causal inference and prediction

McKeown, Karen, Topics in current status data

University of California, Davis (20)

Department of Mathematics

Berg, Sonya, A quantum algorithm for the quantum Schur transform

Dueck, Jean-Pierre, Spectral properties of Wigner matrices

Ferreira, Jeffrey, Row-strict quasisymmetric Schur functions, characterizations of Demazure atoms, and permuted basement nonsymmetric Mac-Donald polynomials

Hunt, Thomas, A proof of the higher order accuracy of the patchy method for solving the Hamilton-Jacobi-Bellman equation

Ifrim, Mihaela, Normal form transformations for quasilinear wave equations

Lee, Eunghyun, Bethe ansatz solvable interacting particle system on Z

Liou, Jia-Ming, Topology of the Krichever map

Nakatsukasa, Yuji, Algorithms and perturbation theories of matrix eigenvalue problems and the singular value decomposition

Oyoung, Jen Keng, Totally asymmetric simple exclusion process for particles of different hopping rates

Renfrew, David, Outliers of finite rank deformations to random matrices and related functionals

Shinault, Gregory, Inhomogeneous tilings of the Aztec diamond and the Airy process

Stamps, Matthew, Topological methods in matroid theory

Tseng, Hsiao-Chieh, Compressive sensing and its applications in radar imaging and rough surface scattering

Vershynina, Anna, Existence of the thermodynamic limit and asymptotic behavior of some irreversible quantum dynamical systems

Woei, Ernest, Characterization and clustering of dendrite trees using morphological features extracted by graph spectra

Department of Statistics

Hyun, Jung Won, Local polynomial estimation for a smooth spatial random process with a stochastic trend and a stationary noise

Jiang, Yun Kai, Topics on Bayesian analysis of missing data

Lee, Lawrence, Iterative estimation equation approach for nonlinear mixed effects models

Loux, Travis, Causal inference and estimation of the odds ratio

Mou, Jiani, Two-stage fence methods for longitudinal data

University of California, Irvine (19)

Department of Mathematics

Campbell, Robert, Realizing cubic hypersurfaces

Chen, Wei-Kuo, Chaos problem in mean field spin glasses

Chen, Ying, Modeling solid tumor growth in complex dynamic geometries

Farhat, Aseel, Analytical study of the Hasegawa-Mima model, a multi-layer and a continuously stratified geostrophic model of ocean dynamics

Kong, Li, Long range stochastic volatility with slow and fast scales in option pricing

Le, Anh, Minami estimates for a finite rank Anderson model

Liang, Jian, Solving partial differential equations on point clouds and geometric understanding of point clouds

Liu, Yu-Yu, Turbulent flame speeds of G-equations

Lv, Hua, Modeling, calibration, and simulation of spot price paths

Marx, Christoph, Quasi-periodic Jacobi cocycles, dynamics, continuity, and applications to extended Harper's model

Mavi, Rajinder, Quantum mechanized models with strictly ergodic disorder

Pecharich, Jeremy, A deformation complex for modules over deformation quantization

Peng, Yuyu, Multiscale modeling of cell populations and intracellular gene regulatory network

Pham, Kara, Predictions of the morphological stability of growing tumors: A theoretical analysis and experimental validation

Pipan, John, Periodic non-autonomous second-order Hamiltonian systems

Sorace, Ronald, Accumulation of mutation in stochastically growing colonies: Theory and applications

Wu, Zhiwei, Solution equations and geometric curve flows

Xue, Xun (Sean), An anti-classification theorem for ergodic homeomorphisms of the torus

Yu, Meng, Multi-channel enhancement by regularized optimization

University of California, Los Angeles (46)

Department of Biostatistics, Fielding School of Public Health

Kim, Soeun, Multiple imputations for missing covariates in regression models in the presence of interactions

Lee, Jihey, Bayesian analyses of longitudinal self-reported counts of sexual behavior

Lin, Sherry T., Joint Bayesian modeling of irregularly measured multivariate longitudinal nutrient consumption and longitudinal outcome data

Patel, Trina R., Bayesian methods in the quantitative risk assessment and toxicity profiling of engineered nanomaterials

Tom, Jennifer A., Bayesian hierarchical modeling for massive sequence datasets

Zhu, Yuda, Hierarchical and semi-parametric Bayesian models for the study of longitudinal HIV behavior and tuberculosis incidence data

Department of Mathematics

Allen, Patrick, Modularity of nearly ordinary 2-adic residually dihedral Galois representations

Blinstein, Semyon, Cohomological invariants of algebraic tori

Buttcane, Jack, Sums of $SL(3, Z)$ Kloosterman sums

Cantarero, Alejandro, Numerical methods and inverse problems in elliptic PDEs

Hegemann, Rachel, Spatially embedded social networks: Dynamic models and data reconstruction

Hellrung, Jeffrey, On embedded methods for crack propagation, virtual surgery, shattered objects in computer animation and elliptic partial differential equations

Huang, Hao, Various problems in extremal combinatorics

Jacobson, Judah, L^1 minimization for sparse audio processing

Keegan, Matthew, Models and methods for multiphase segmentation

Kovac, Vjekoslav, Applications of the Bellman function technique in multilinear and nonlinear harmonic analysis

Lederman, Carl, Finite element and mesh-free applications to image processing

Lee, Choongbum, Problems in extremal and probabilistic combinatorics

Lewis, Erik, Estimation techniques for self-exciting point processes with applications to criminal behavior

Lidman, Tye, Triple cup products in Heegaard Floer homology

Mahboubi, Pejman, Intermittency of the Malliavin derivatives and regularity of the densities for a stochastic heat equation

Massey, Adam, The KH-theory of complete simplicial toric varieties and the algebraic K-theory of weighted projective spaces

Merton, Gabriel, Codazzi tensors with two eigenvalue functions

Palamourdas, Konstantinos, $1, 2, 3, \ldots, 2n+1, \infty$

Reduzzi, Davide, Shifting Hecke eigensystems in positive characteristic

Ruozzi, Anthony, Algebraic tori and essential dimension

Seyalioglu, Hakan, Reducing trust when trust is essential

Shih, Justin, On the negative K-theory of singular varieties

Sizemore, James, Orbit equivalence and von Neumann rigidity for actions of wreath product groups

Smith, Laura, Incorporating spatial information into density estimates and street gang models

Tiruviluamala, Neelesh, On the passage of Gaussian beams through cusps in ray paths

Von Brecht, James, Particle formation in particle interactions

Waters, Alden, A parametrix construction for low regularity wave equations and spectral rigidity for two dimensional periodic Schrödinger operators

Wilson, Stedman, Embeddings of polytopes and polyhedral complexes

Winchester, Adam, Gap rigidity and unique prime decomposition

Wong, Wanshun, Essential dimension of finite groups

Yan, Ming, Image and signal processing with non-Gaussian noise: EM-type algorithms and adaptive outlier pursuit

Yang, Xiaokui, Positivity and vanishing theorems in complex and algebraic geometery

Yao, Yao, Aggregation equation with degenerate diffusion

DEPARTMENT OF STATISTICS

Balderama, Earvin, Spatial-temporal branching point process models in the study of invasive species

Rundel, Colin Witter, Bayesian methods for spatial assignment of migratory birds

Shen, Jie, Additive mixed modelling of HIV patient outcomes across multiple studies

Tsai, Wei Tan, Multilinear approximation with Kronecker weights

Wu, Tianfu, Integration and goal-guided scheduling of bottom-up and top-down computing processes in hierarchical models

Yao, Zhenyu, Learning spatial-temporal models for understanding actions and events in video

Zhao, Mingtian, A statistical and computational theory for the art of painting

University of California, Riverside (25)

DEPARTMENT OF MATHEMATICS

Bennett, Matthew, On tilting modules for the current algebra associated to a simple Lie algebra

Carlson, Christopher, Foliations, contact structures and finite group actions

Herzog, Barbara, Sub-index for the critial points of the Riemannian distance function

Katz, Adam, PBW bases for dioperads

Lal, Nishu, Spectral zeta functions of Laplacians on self-similar fractals

Lee, Kwangwoo, Transfer theorems on tautological modules of Hilbert schemes of nodal curves and de Jonquieres' formulas

Manning, Nathaniael, Global Wehl modules for twisted and untwisted loop algebras

Niemeyer, Robert, On the properties of sequences of compatible orbits of Koch snowflake prefractal billiard tables and particular periodic orbits of the Koch snowflake fractal billiard

Oeser IV, Paul, Monoidal extensions of a locally quasi-unmixed domain

Pro, Curtis, Topics on Riemannian submersions and diffeomorphism stability

Sill, Michael, Average distance functions and their applications

Thomas, Bradley, Boundary characterization of a smooth domain with non-compact automorphism

Zaragoza, Juan, Orthogonal partial conformal change

DEPARTMENT OF STATISTICS

Benecke, Scott, Bayes neutral zone classification in unsupervised and semi-supervised settings

Che, Xiaohong, Bayesian statistics and its application to quantitative trait loci mapping

De Palma, Elijah, Sequential hypothesis testing with spatially correlated presence-absence data and the corridor problem

Dutta, Santanu, Optimum designs for identification and discrimination within a class of computing linear regression models

Flores, Analisa, Characterization of special variance structures for designs in model identification and discrimination

Gan, Lu (Rebecca), Optimal longitudinal cohort designs and variance parameter estimation

Ghosh, Indranil, Inference for the bivariate and multivariate hidden truncated Pareto (type II) and Pareto (type IV) distribution and some measures of divergence related to incompatibility

Le, Rebecca, Proposed: Alternative approaches in multi-label neutral zone classification problems

Shi, Nigie, Estimation and clustering on longitudinal data using penalized spline models

Song, Huiming, Proposed: Bayesian analysis of MTD/BMTD models

Wang, Haoyu, New methods for solving maximum likelihood estimating equations of logistic and probit regression models

Zhang, Zhanpan, Clustering: Algorithm, optimization and inference

University of California, San Diego (16)

DEPARTMENT OF MATHEMATICS

Berglund, James, Z-graded maximal orders of GK 3

Brik, Alex, Extensions of answer set programming

Chowdhury, Ameerah, Shadows and intersections

Duong, Son, Transversality of CR mappings between CR submanifolds of complex spaces

Foley, John, Comparing Kac-Moody groups over the complex numbers and fields of positive characteristic via homotopy theory

Gill, Matthew, Parabolic flows on complex manifolds

Johnson, Alan, Reductions and propositional proofs for total NP search problems

Laetsch, Thomas, An approximation of Wiener measure on manifolds with non-positive sectional curvature

Lee, Seung, Determinants of intertwining operators between genuine principal series representations of nonlinear real split groups

Pollock, Sara, Convergence of goal-oriented adaptive finite element methods

Radcliffe, Mary, Random graphs with attribute affinity

Reed, Joseph, Methods for PDE-constrained optimization

Schultheis, Daniel, Virtual invariants on Quot schemes over Fano surfaces

Stout, Amy, Non-regular algebras of dimension 3

Tiefenbruck, Mark, Patterns and statistics on words

Young, Alexander, Examples of algebras of small Gelfand-Kirillov dimension

University of California, Santa Barbara (5)

Department of Mathematics

Fisher, Jordan, Efficiently removing stiffness in the immersed boundary methods

Wu, Peng, Studies on Einstein manifolds and Ricci solitons

Department of Statistics and Applied Probability

Ghofrani, Hamid, Latent degree graph models for social networks

Sau, Raj, Rebalancing portfolios under transaction costs

Xu, Yan, Some contributions to multidimensional scaling and unfolding

University of California, Santa Cruz (11)

Applied Mathematics and Statistics Department

Acevedo-Arreguin, Luis Antonio, The magnetohydrodynamics of the solar tachocline

Chang, Jing, Topics in model selection: Variable selection for computer experiments and choosing the number of nodes for neural networks

Farah, Marian, Bayesian nonparametric methods for emulation, sensitivity analysis, and calibration of computer simulators

Fronczyk, Kassandra, A new framework for Bayesian analysis of dose-response studies through dependent nonparametric modeling for categorical responses

Liang, Waley, Bayesian nonstationary Gaussian process models via treed process convolutions

Department of Mathematics

Dai, Mimi, The nematic liquid crystal systems and magneto-hydrodynamics system: The properties of their solutions

DeConde, David, Hypersurfaces of constant curvature in asymptotically hyperbolic manifolds

Hein, Doris, Variations on the theme of the Conley conjecture

Krauel, Matthew, Vertex operator algebras and Jacobi forms

Shelley, Christopher, The geometry of integral binary Hermitian forms

Tokorcheck, Paul, Moy Prasad filtrations for G_2 of a p-adic field

University of Southern California (12)

Department of Mathematics

Chebotarov, Dmytro, Classification of transitive vertex algebroids

DeSalvo, Stephen, Probabilistic divide-and-conquer—a new method for exact simulation—and lower bound expansions for random Bernoulli matrices via novel integer partitions

Ghosh, Subhankar, Stein couplings for Berry-Essen bounds and concentration inequalities

Ignatova, Mihaela, Quantitative unique continuation and complexity of solutions to partial differential equations

Kaligotla, Sivaditya, Asymptotic problems in stochastic partial differential equations: A Wiener chaos approach

Lin, Wei, Survival analysis with missing data and high dimensionality

Pavelescu, Andrei, On the proportion of derangements in cosets of primitive permutation groups

Reis, Ednei, Asymptotic expansion for solutions of the Navier-Stokes equations with potential forces

Sobaje, Paul, Blocks of finite group schemes

Wang, Xinyang, Dynamic model for limit order books and optimal liquidation problems

Yun, Youngyun, Analysis of correlated defaults and joint default probability in a contagion model

Zhong, Changlong, Comparison of dualizing complexes

COLORADO

Colorado School of Mines (1)

Department of Applied Mathematics and Statistics

Lauriski-Karriker, Tonya, Optional risk set sampling designs for case-crossover studies with applications to studies involving environmental exposures

Colorado State University (5)

Department of Mathematics

Burch, Nathanial, Probabilistic foundation of nonlocal diffusion and formulation and analysis for elliptic problems on uncertain domains

Croke, Ryan, An investigation of the Novikov-Veselov equation: New traveling-wave solutions, a numerical solution, instability to transverse perturbations and implications to the inverse scattering transform

Newton, William, A posteriori error estimates for the Poisson problem on closed two-dimensional surfaces

Department of Statistics

Hackstadt, Amber, Bayesian shape-restricted regressions splines

McConville, Kelly, Improved estimation for complex surveys using modern regression techniques

University of Colorado, Boulder (12)

Department of Applied Mathematics

Byrne, Erin, The post-fragmentation probability density for bacterial aggregates

Gillman, Adrianna, Fast direct solvers for elliptic partial differential equations

Halko, Nathan, Randomized methods for computing low-rank approximations of matrices

Larremore, Daniel, Critical dynamics in complex excitable networks

Nixon, Sean, Development and applications of soliton perturbation theory

Taylor, Kye, Modeling and analysis of the low-dimensional geometry of signal and image patch-sets

Department of Mathematics

Chestnut, Robin, Independent partitions in Boolean algebras

Katz-Moses, Benjamin, Small deviations of the β-Jacobi Ensemble

Keyes, David, Analytic proofs of McWilliams identities

Limburg, Stephen, Space-time codes, non-associative division algebras, and elliptic curves

Mesa, Camilo, Getzler symbol calculus via deformation quantization

Newberry, Patrick, Explicit computation of the cohomology of a symbol algebra

University of Colorado, Denver (6)

Department of Mathematics and Statistical Sciences

Chamsri, Kannanut, Modeling the flow of PCL fluid due to the movement of lung cilia

Dasgupta, Shilpa, On characterizations and structure of interval digraphs and unit probe interval graphs

Kim, Minjeong, Reaction diffusion equations and numerical wildland fire models

Larson, Jeffrey, An implementation of scatter search to train neural networks for brain lesion recognition

Rodgers, Morgan, On some new examples of Cameron-Liebler line classes

Santos, Amande Marie (Melissa), Robust estimation of censored mixture models

CONNECTICUT

University of Connecticut, Storrs (12)

DEPARTMENT OF MATHEMATICS

Bourla, Avraham, The bi-sequences of approximation coefficients for Gauss-like and Renyi-like maps on the interval

David-Roesler, Lucas, Algebras from surfaces and their derived equivalences

Ferrone, David, Finite biorthogonal transforms and multiresolution analyses on intervals

Haga, John, Levy processes in a step 3 nilpotent Lie group

Salisbury, Benjamin, A combinatorial description of the Gindikin-Karpelevich formula

Schwarz, Ryan, Zero-divisor conditions in commutative group rings

Shan, Hui, Managing a portfolio of life settlement policies

DEPARTMENT OF STATISTICS

Bhattacharjee, Debanjan, Statistical inference for a normal distribution with variance as a multiple of its mean

Ge, Miaomiao, Bayesian modeling and inference of survival data with competing risks

Matthews, Gregory, Selected topics of statistical disclosure limitation

Sinha, Arijit, Bayesian inference of survival data with gamma process priors

Wang, Xiaojing, Dynamic regression models for interval censored and panel count survival data

Wesleyan University (1)

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Henshaw, Glenn, Search bounds for points in linear and quadratic spaces

Yale University (12)

BIOSTATISTICS DIVISION

Shen, Ye, Topics in analyzing recurrent event data with sparsely observed longitudinal data

Skup, Martha, Analysis of longitudinal neuroimaging data

DEPARTMENT OF MATHEMATICS

Gupta, Subhojoy, Asymptoticity of grafting and Teichmuller rays

Ip, Ivan, Harmonic analysis of $GL_q^+(2,\mathbb{R})$ and positive representations of split real quantum groups

Lauer, Joseph James Sunstrum, On mean curvature flow and weak solutions

Sun, Chun-yi, Asymptotic geometry, bounded generation and subgroups of mapping class groups

Tecu, Nicolae, Random conformal weldings and removability questions

Vioreanu, Bogdan, Spectra of multiplication operators as a numerical tool

Zeitlin, Anton, Semi-finite cohomology in noncommutative geometry and conformal field theory

DEPARTMENT OF STATISTICS

Guntuboyina, Adityanand, Minimax lower bounds

Hee Kim, Kyoung, Semiparametric minimax problem

Yan, Peisi, Asymptotic properties of parameter estimations for differential equations

DELAWARE

Delaware State University (2)

DEPARTMENT OF MATHEMATICAL SCIENCES

Topkara, Engin, Integrability aspects of solitons in nonlinear fiber optics

Vance, Tia, Data mining for spectroscopy data

University of Delaware (4)

DEPARTMENT OF MATHEMATICAL SCIENCE

Chen, Qiang, Convolution quadrature applied to time domain acoustic and electromagnetic scattering problems

Miller, Jennifer, A whole greater than the sum of its parts: Mathematically modeling and analyzing swarms

Petrak, Bryan, Finite figueroa planes

Torres, Claudio, Ants, slime mold and droplets: A mathematical foundation for swarm-based network models and analysis of droplet motion.

DISTRICT OF COLUMBIA

George Washington University (8)

DEPARTMENT OF MATHEMATICS

White, Tyler, Topologically mixing tilings of the plane generated by a generalized substitution

DEPARTMENT OF STATISTICS

Bauder, Donald, Bayesian robustness in finite population sampling

Gordon, Anna, The stochastics of diagnostic and threat detection tests

Jackson, John, Prediction models for longitudinal binary and count data

Jin, Mei, Group sequential designs of intraclass correlation coefficient in reliability studies

Wang, Linglu, Bayesian analysis of case-control genetic association studies in the presence of population stratification or genetic model uncertainty

Zhang, Tong, Gaussian phases toward statistical equilibrium in some urn models

Zhou, Haojin, The equivariant criterion in statistical prediction and its ramifications

Howard University (4)

DEPARTMENT OF MATHEMATICS

Johnson Jr., John, Some differences between an ideal in the Stone-Čech compactification of commutative and noncommutative semigroups

Jordan, Henry, Minimal Hales-Jewett sets

Li, Nianpeng, Harvesting policies and sustainability of fishery systems: Dynamic implications in the Georges Bank cod and sea scallop

Thomas, Evelyn, The effect of bisexuality on the spread of incurable sexually transmitted disease

FLORIDA

Florida Atlantic University (7)

DEPARTMENT OF MATHEMATICAL SCIENCES

Gao, Shanzhen, The enumeration of lattice paths and walks

Gao, Weizhang, Password-authenticated two-party key exchange with long-term security

Liu, Zhihua, Empirical likelihood method for segmented linear regression

Mihnea, Amalya, Permutation-based data compression

Neupane, Kashi, Design and analysis of key establishment protocols

Santos, Radleigh, A novel optimization algorithm and other techniques in medicinal chemistry

Tiwari, Shanaz, Stability analysis for nonlinear systems with time-delays

Florida Institute of Technology (6)

DEPARTMENT OF MATHEMATICAL SCIENCES

Al Neyadi, Abdulla, Resolution of some transportation issues using analytic hierarchy process (AHP): A case study of a mega city in UAE

Alsharif, Mustafa, Neural network optimization of airline ticket booking: An airline revenue management system

Onyejekwe, Ogugua, Numerical methods for solving inverse free boundary problems for the second order parabolic equations

Rahmes, Mark, A study of accuracy measurement methods for 2D and 3D void filling applications

Ram, Anjali, Semi-coarsening multigrid and algebraic multigrid for z-level grids

Ramakrishnan, Suja, Solving linear programs as linear systems in polynomial-time with error-free computation: Matlab implementation

Florida State University (24)

Department of Mathematics

Armstrong, Johnathon, Principal elements of mixed-sign Coxeter systems

Biswas, Saikat, Constructing non-trivial elements of the Shafarevich-Tate group of any abelian variety

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O'Keefe, Augustine, Cohen-Macaulay toric rings arising from finite graphs

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MARYLAND

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Li, Ran, Statistical methods for gene set based prediction and clustering analysis of microarrays

SCHOOL OF MATHEMATICS

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Kim, Do Hyang, Partial sufficient dimension reduction in regression

Lendway, Lisa, Mixed effects models for size-attained data

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Willis, Matthew, New descriptions of demazure tableaux and right keys, with applications to convexity

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Lee, Seonjoo, Independent component analysis on the special domain

Lock, Eric, Vertical integration of multiple high-dimensional datasets

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Yuan, Ying, Statistical analysis of SPD matrices

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Barman, Doyel, Consistency results in the theory of continuous functions and selective separability

Davis, Christopher, Meshless boundary particle methods for boundary integral equations and meshfree particle methods for plates

Feng, Yaqin, Limit theorems for reaction-diffusion models

Ghosh, Lipika, Analysis of failure time data with missing and informative auxiliary covariates

Li, Mei, Statistical analysis of mark-specific proportional hazards models

Steinberg, Constantine, Continue, quit, restart probability models and related problems

Sun, Linman, Nonparametric pricing kernel models

Xia, Lihong, On λ-quantile dependent convex risk measures

Yang, Bingduo, Variable selection for functional index coefficient models and its application in finance and engineering

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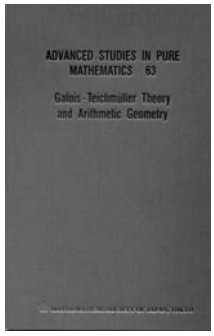

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Du, Hong, Nonlinear functional discriminant analysis
Harris, Pamela, Combinatorial problems related to Kostant's weight multiplicity formula
Wood, John, A random switch model for heavy-tailed distributions

WYOMING

University of Wyoming (5)

DEPARTMENT OF MATHEMATICS

Fernando, Bandhisattambige, Stochastic Navier-Stokes equation with Ito-Levy noise
Mukherjee, Saikat, Composition operators on Paley-Wiener type spaces
Nair, Reshmi, Acyclic matrices with an extreme number of distinct eigenvalues
Wijeratne, Chandana, On stochastic shell models of turbulence
Xu, Meng, Stochastic analysis and nonlinear filtering of point vortex dynamics subjected to jump noise