Department of Mathematics and Statistics
Chair: Dr. Joanne Dombrowski, 937-775-2785
http://www.math.wright.edu/

Refereed publications and book chapters

Arasu, K. T.

Arasu, K. T., Bhadnari, Ma, S. L., and Sehgal, S. (2005). Regular difference covers. Kyungpook Math. Journal, 45, 137-152.

Arasu, K. T., and Sehgal, S. (2005). Cyclic differences covers. Australian Journal of Combinatorics, 32, 213-223.

Chen, Y. Q.

Chen, Y. Q. and Li, C. H. (2005). Relative difference sets fixed by inversion and Cayley distance regular graphs. Journal of Combinatorial Theory, Series A., 111, 165-173.

Liu, W., Chen, Y. Q. and Horadam, K. J. (2005). Relative difference sets fixed by inversion (II)—Character theoretic approach. Journal of Combinatorial Theory, Series A., 111, 175-189.

Chen, Y. Q., Glover, H., and Jensen, C. (2005). Proper actions of automorphisms of free products of finite groups. International Journal of Algebra and Computation, 15, 255-272.

Huang, Chaocheng

Dai, Z., Ritzi, R., Huang, C., Rubin, Y, and Dominic D. (2004). Transport in heterogeneous sediments with multimodal conductivity and hierarchical organization across scales. J. Hydrology, 294, 68-86.

Huang, C. (2004). On regularity of vortex patches 3D Euler systems. In Proceedings of the Second International Congress of Chinese Mathematicians 2001, Series of New Studies in Advanced Mathematics, International Press, 645-650.

Khamis, Harry

Persson, I., and Khamis, H. J. (2005). Bias of the Cox model hazard ratio. Journal of Modern Applied Statistical Methods, 4, 90-99.

Khamis, H. J. (2005). Multigraph modeling. In Encyclopedia of Statistics in Behavioral Science (Eds. B. Everitt and D. Howell), John Wiley & Sons.

Khamis, H. J. (2005). Measures of association. In Encyclopedia of Biostatistics (Eds. P. Armitage and T. Colton), John Wiley & Sons.

Mathews, Susann

Basista, B., Mathews, S., Tomlin, J., Farrell, Al, Lunsford, S., and Slattery, W. (2005). Impact of multidimensional collaboration and dual appointments on teacher preparation. Chapter in S. Wagner and S. P. Meiring (Eds.), The Story of SUSTAIN: Models of Reform in Mathematics and Science Teacher Education (pp. 139-158), Columbus: Ohio Resource Center for Mathematics, Science, and Reading.

Basista, B., Herrelko, J. Sandy, M., Lowell, C., Nedunuri, K., Okunade, S., Klofenstein, P., Roath, K., Aldridge, M., Ross, A., Thompson, C., Mathews, S., Tomlin, J., Rusch, T., Krakowski, R., Esprit, L., Johnson, J. Aimiuwu, S. (2005). Miami Valley Regional Collaborative for improvement of science and mathematics. Chapter in S. Wagner and S. P. Meiring (Eds.), The Story of SUSTAIN: Models of Reform in Mathematics and Science Teacher Education (pp. 159-180), Columbus: Ohio Resource Center for Mathematics, Science, and Reading.

McKee, Terry

McKee, T. (2005). Clique representations of graphs. Congressus Numerantium, 170, 185-192.

McKee, T. (2005). Requiring chords in cycles, Discrete Mathematics, 297, 182-189.

McKee, T. (2005). Chordal bipartite analogs of 2-trees and isolated failure immune networks. Journal of Combinatorial Mathematics and Combinatorial Computing, 52, 79-88.

McKee, T. (2005). A characteristic approach to bipartite graphs as incidence graphs. Utilitas Mathematica, 68, 3-10.

McKee, T. (2005). Spanning (2)-trees of intersection graphs and Hunter-Worsley-type set bounds, Utilitas Mathematica, 68, 97-102.

Miller, David

Miller, D. (2005). On characterizing integral stopping time functionals on diffusions as solutions to boundary value problems. Stochastic Analysis and Applications, 23, 205-216.

Reed, Michelle

Brown, R., and Reed, M. K. (2005). Adapting large lecture classes to problem solving and inquiry. Chapter in S. Wagner and S. P. Meiring (Eds.), The Story of SUSTAIN: Models of Reform in Mathematics and Science Teacher Education (pp. 100-116), Columbus: Ohio Resource Center for Mathematics, Science, and Reading.

Reed, M. K., and Smith, J. P. (2005). Counting the pinecones: Children's addition and subtraction strategies. Montessori Life, 17(2), 26-28.

Slilaty, Daniel

Slilaty, D. (2005). On cographic matroids and signed-graphic matroids. Discrete Mathematics, 301 (2-3), 207-217.

Tian, Emily

Tian, E. and Tan, Y. (2005). Perturbation analysis of homoclinic structure in Zakharov equations. Dynamics of Continuous, Discrete & Impulsive Systems, Series A: Mathematical Analysis, 12(1), 115-128.

Wang, Weizhen

Wang, W. and Yu, Y. B. (2004) Algorithmic generation of freely jointed hard sphere chains and properties of their inertial tensors. Journal of Biomolecular Structure and Dynamics, 21, 805-811.

Talks: Presentations and Invited Talks

Arasu, K. T.

Invited: Self dual codes. International Conference on Design of Experiments, University of Memphis, May 2005.

Invited: Perfect sequence constructions. International Conference in Number Theory, Panjab University, India, December 2005.

Invited: Perfect sequence constructions. Colloquium at the Indian Statistical Institute, Calcutta, India, December 2005.

Invited: Perfect sequence constructions. Colloquium at Anna University, Madras, India, December 2005.

Chen, Yuqing

Contributed: Hamilton cycles in vertex transitive graphs of prime power order. Midwest Graph Theory Conference, Middle Tennessee State University, September, 2005.

Evans, Tony

Contributed: Latin squares based on direct products of elementary Abelian groups: A Progress report. Comference on Combinatorics, Graph Theory and Computing, Florida Atlantic University, Boca Raton, Floriday, March 2005.

Farrell, Ann

Invited: Algebra. Presented at three Technology-Enhanced Mathematics Instruction Institutes, Eastland Career Center, Groveport, Ohio, June 15, June 22, and June 29, 2005.

Huang, Chaocheng

Contributed: Random domain decomposition aprach for flow in porous media, Winter Simulation Conference, Orlando, Florida, December 2005.

Huang, Qingbo

Invited: W{2,p} estimates for the Monge-Ampere equation with VMO data. Analysis seminar, University of Texas at Austin, December 2005.

Invited: Nonlinear elliptic equations. Program seminar, MSRI, Berkeley, September 2005.

Invited: On the Alexadrov type inequalities for reflector problem. PDEs seminar, Georgia Institute of Technology, April 2005.

Invited: On the mean oscillation of second derivatives of solutions to the MOnge-Ampere equation. Analysis seminar, University of Texas at Austin, January 2005.

Khamis, Harry

Invited: Buffon's needle problem: Variations and applications. Department of Mathematics and Statistics, Humboldt State University, Arcata, California, December 2005.

Contributed: A comparison of statistical tests for assessing the proportional hazards assumption in the Cox model. Biometrics ENAR Meeting, Austin, Texas, March 2005.

Kinateder, Kimberly

Invited: Boundary value problems and exit time moments of Brownian motion. Applied Mathematics Colloquium, AFIT, WPAFB, May 2005.

Mathews, Susann

Invited: The scholarship of mathematics education, (with A. M. Farrell and M. K. Reed). Centers of Excellence Symposium on Mathematics and Science Teaching and Learning: Connecting and Collaborating for Success, Akron, September 2005.

Contributed: Developing pre-service teachers as modelers by connecting courses and disciplines, (with M. K. Reed). 12th Internatioonal Conference on the Teaching of Mathematical Modelling and Applications, London, England, July 2005.

Contributed: Assessment methods in reformed program for pre-service middle school mathematics teachers, (with A. Farrell and M. Reed). Annual meeting of the Association of Mathematics Teacher Educators, Dallas, Texas, January 2005.

McKee, Terry

Invited: Chords and connectivity. 18th Cumberland Conference on Combinatorics, Graph Theory & Computing, University of Alabama-Huntsville, May 2005.

Contributed: S-minimal circs and related Eulerian oddities. 36th Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Florida Atlantic University, March 2005.

Perkel, Manley

Contributed: The sequential sum problem and the on-line Steiner problem. Nineteenth Midwest Conference on Combinatorics, Cryptology, and Computing, Rochester Institute of Technology, October 2005.

Ratnaparkhi, Makarand

Invited: Modeling selection biased data arising in environmental and medical studies using weighted lognormal and bivariate lognormal distributions. International Statistical Conference, Hydrabad, India, December 2004 – January 2005.

Reed, Michelle

Contributed: Developing pre-service teachers as modelers by connecting courses and disciplines, (with S. Mathews). 12th Internatioonal Conference on the Teaching of Mathematical Modelling and Applications, London, England, July 2005.

Contributed: Mathematics assessment within a program for preparing middle school mathematics teachers, (with A. Farrell and S. Mathews). Annual meeting of the Association of Mathematics Teacher Educators, Dallas, Texas, January 2005.

Contributed: The issue of professional practice: How do we define it for promotion and tenure? (with S. Mathews and A. Farrell). Centers of Excellence Symposium on Mathematics and Science Teaching and learning: Connecting and Collaborating for Success, Akron, Ohio, September 2005.

Slilaty, Daniel

Contributed: Flow and coloring duality. Midwest Graph Theory Conference, Middle Tennessee State University, September, 2005.

Sun, Shuxia

Invited: Consistency of bootstrapping the sample quantile under weak dependence. Department of Mathematics, University of Dayton, October, 2005.

Contributed: On the accuracy of bootstrapping sample quantiles of strongly mixing sequences. Joint Statistical Meetings, Minneapolis, August, 2005.

Tarpey, Thaddeus

Invited: Curriculum guidelines for bachelor degrees in statistical science. University of Dayton, April, 2005.

Contributed: Functional data analysis issues for identifying placebo response in drug treated subjects. Internation Biometric Society: Eastern North American Region, Austin, Texas, March, 2005.

Tian, Emily

Contributed: A nonlinear study off electric field induced pattern formation in thin liquid films. American Physical Society's Division of Fluid Dynamics, Chicago, November, 2005.

Voss, Dan

Invited: Sharper step-down tests for analysis of orthogonal saturated designs. International Conference on Designs of Experiments, Memphis University, May, 2005.

Invited: Repeated measures, split plots, and missing data: A mobile computing field study. Joint Statistical Meetings, Minneapolis, August, 2005.

Wang, Weizhen
Contributed: Stepwise tests in orthogonal saturated designs. MCP2005, Shanghai, China, August, 2005.

Symposia: Invitations to Participate or Chair Symposia

None

Editorial Boards

Dr. K. T. Arasu
Designs, Codes and Cryptography

Dr. Harry Khamis
Journal of Diagnostic Medical Sonography
Computer Methods and Programs in Biomedicine
International Journal of Statistical Sciences
Journal of Modern and Applied Statistical Methods

Dr. Steen Pedersen
Far East Journal of Mathematical Sciences

Dr. Munsup Seoh
InterStat

Dr. Thaddeus Tarpey
The American Statistician

Dr. Dan Voss
Journal of Statistics and Applications

Study Sections: Membership in Granting Agency Study Section

None

National Offices: Offices in National Professional Organizations

None

Organizing/Hosting Special Events, Symposia, Colloquia

Dr. K. T. Arasu

Hosted Colloquium – Zixia Song, Ohio State University, Discrete Mathematics

Hosted Colloquium – Eric Conrad, Ohio State University, Discrete Mathematics

Hosted Colloquium – Guna Seetharaman, Air Force Institute of Technology, Discrete Mathematics

Dr. Ann Farrell

Organized a panel (with Drs. Mathews and Reed) at the Centers of Excellence Symposium, University of Akron, Sept 2005.

Hosted Colloquium – Richard Millman, University of Kentucky, Mathematics Education

Dr. Qingbo Huang

Hosted Colloquium – Guan Bo, Ohio State University, Analysis

Dr. Susann Mathews

Organized a panel (with Drs. Farrell and Reed) at the Centers of Excellence Symposium, University of Akron, Sept 2005.

Dr. David Miller

Hosted Colloquium – Chaocheng Huang, Wright State University, Applied Mathematics

Hosted Colloquium – Emily Tian, Wright State University, Applied Mathematics

Dr. Manley Perkel

Hosted Colloquium – Roy Levy, University of Maryland, Educational Statistics

Hosted Colloquium – Akos Serres, Ohio State University, Discrete Mathematics

Hosted Colloquium – Cheryl Praeger, University of Western Australia, Discrete Mathematics

Hosted Colloquium – John Bullock, Wright State University, Epidemiology/Biostatistics

Dr. Makarand Rataparkhi

Hosted Colloquium – Vasant Waikar, Miami University, Statistics

Dr. Michelle Reed

Organized a panel (with Drs. Farrell and Reed) at the Centers of Excellence Symposium, University of Akron, Sept 2005.

Hosted Colloquium – Barbara Edwards, Oregon State University, Mathematics Education

Dr. Shuxia Sun
Hosted Colloquium – Fuxia Chen, Illinois State University, Statistics

Dr. Thaddeus Tarpey
Hosted Colloquium – Michael Elliot, University of Pennsylvania, Statistics

Hosted Colloquium – Weizhen Wang, Wright State University, Statistics

Dr. Emily Tian
Hosted Colloquium – Todd Young, Ohio University, Applied Mathematics

Dr. Larry Turyn
Hosted Colloquium – Otis Wright, III, Cedarville University, Applied Mathematics

Dr. Dan Voss
International Organizing Committee Member, International Conference on Design of Experiments, Memphis, May 13-15, 2005

Hosted Colloquium – Dongkwon Park, Yonsei University, South Korea, Statistics

Dr. Weizhen Wang
(Chair of Colloquium Committee)

Hosted Colloquium – Thad Tarpey, Wright State University, Statistics

Hosted Colloquium – John Jiang, Cephalong, Inc., New Jersey, Statistics

Hosted Colloquium – K. T. Arasu, Wright State University, Discrete Mathematics

Professional Development Leaves

Dr. Mararand Ratnaparkhi
Visiting the Department of Statistics, University of Pune, India, to develop Hidden Markov Chain Models for analysis of multivariate time series data arising in microfinance; Visiting the Violin Academy, Pune, India to collaborate with Pandit Atulumar Upadhye, for statistical modeling of waveforms of audio-signal samples of musical notes for a study of longitudinal data on Indian classical music; Studying lead-time bias and length bias in survival analysis for cancer studies; Visiting Miami University in Oxford, Ohio to work with Professor Vasant Waikar on bootstrap methods for increasing efficiency of two-state shrinkage estimation of normal variance

Awards to Faculty, Staff, Students

Mary Alspaugh
President's Award for Excellence in Leadership

Dr. K. T. Arasu
Trustees' Award for Faculty Excellence

Glenn Dahl
Selected for Who's Who Among America's Teachers

Selected for membership in the OSU Chapter of the Phi Kappa Phi Honor Society

Selected for membership in the OSU Chapter of the Pi Lambda Theta Honor Society

Ishwori Dhakal
Graduate Student Excellence Award, Applied Statistics Program

Mindy Diesslin
Aley United Methodist Church, Inter-Faith Hospitality Hosting, Choir Member

Dora Douglas
Dayton Air Show, Committee Member

Victoria and Schuster Theaters, Volunteer

Dr. Ann Farrell
Teaching Fellow, one of 18 in Ohio, awarded by the Ohio Board of Regents, 2004—2006

Alex Gutman
2005 Texas Instruments Demana-Waits Scholarship

Dr. Qingbo Huang
Member of Mathematical Sciences Research Institute, Berkeley, Aug 12 – Sept 10, 2005

Dr. Harry Khamis
Selection for inclusion in the AcademicKeys Who's Who in Medical Sciences Education

Dr. Susann Mathews
Association of Mathematics Teacher Educators (AMTE) representative to the National Council of Teachers of Mathematics (MCTM), appointed by the president of AMTE, 2005—2007

Teaching Fellow, one of 18 in Ohio, awarded by the Ohio Board of Regents, 2004-2006

David Powder
Graduate Student Excellence Award, Mathematics Program

Paulette Zizzo
March of Dimes, Volunteer

Christmas in Middletown, Volunteer

Outreach Programs

Karen Brackenridge
Volunteer Coach, Sycamore High School Girls Golf Team

Dr. Ann Farrell
Member, Ohio's Science and Mathematics Education Policy Advisory Council. Appointed to a 3-year term to advise the governor, chancellor and superintendent of public instruction, 10/2005

Member (invited then appointed) of the Educator Standards Writing Team for the Ohio Department of Education. Will report to Ohio's Educator Standards Board and will set standards for teaching and professional development for Ohio's teaching profession, 10/2004--9/2005

Dr. Harry Khamis
Development of an Ambassador Study-Abroad Program to Sweden for summer 2006

Dr. Kimberly Kinateder
Pre-school Sunday School teacher

Dr. Susann Mathews
Member of the "P-6 Specialist Endorsement Standards for Mathematics" Lead Writing Team, Columbus, Ohio

Dr. Terry McKee
Honor Seminars of Metropolitan Dayton talk, "Polyhedral Graphs: From Soccer Balls to Buckyballs," 10/27/05

Dr. Richard Mercer
WSU Institutional Representative for the Goldwater Scholarship Competition (responsible for publicity, recruiting candidates, selecting nominees)

Director, K-8 Chess Club, Beavercreek Schools

Dr. Manley Perkel
Co-Master of Ceremonies, Multicultural Halloween Celebration, WSU, 10/27/05

Dr. Michelle Reed
Advisory Board, invited member, "Prompt Intervention in Mathematics Education (PRIME): Research and Best Practices", a project of the Ohio Resource Center for Science, Math, and Reading, being conducted at the request of the ODE

Proctored the "Ohio Council of Teachers of Mathematics" mathematics contest for 100 high school students on campus, February 2005

St. Joseph Montessori School, Board of Trustees, elected member and Secretary

Central Ohio Writers of Literature for Children conference, Treasurer

Dr. Munsup Seoh
American Statistical Association Dayton Chapter, Webmaster

Second Asian American Health Conference, Steering Committee Member, Panelist, Cleveland, Nov 18-19, 2005

Third Asian American Health Conference, Steering Committee Member, to be in Dayton in 2007

Active in: State of the State Conference; Federation Against Intolerance and Racism (FAIR); Asian American Council—Dayton: MLK Jr. Birthday Celebration; WSU Retiree Association; NAACP; Dayton Korean United Methodist Church; Dayton South District United Methodist Church; Dayton Area Korean Association

Dr. Shuxia Sun
American Statistical Association Dayton Chapter, Secretary-Treasurer

Dr. Thaddeus Tarpey
American Statistical Association Dayton Chapter, President

Dr. Larry Turyn
Active in: Temple Sholom, member of Worship Committee and Choir; JAM (Justice Action Mercy) Interfaith Social Action Group

Dr. Jim Vance
Grace United Methodist Church (Dayton), Webmaster, member of the Staff-Pastor-Parish Relations Committee, Member of the Capital Campaign Committee, Member of the Stewardship Committee

Dr. Dan Voss
External Nominator for the Wilcoxon and Youden Awards for best papers, ASQ Chimical and Process Industries Division

Gave 10 presentations on "Mathematics and Puzzles," CoSM Exploring Science program, 11/29-12/2/05

Honor Seminars of Metropolitan Dayton talk, "Statistics: Precision guesswork," Wright State University, 2/24/05

Honor Seminars of Metropolitan Dayton, Inc., Board of Directors

Judge, West District Science Day, Central State University, 3/19/05

Student Clubs and Activities

Putnam Mathematical Competition: Dr. Manley Perkel recruited student participation and conducted study sessions, facilitating WSU student participation in this annual national mathematics competition.

Undergraduate Honors Students

Micah Fuerst
University Honors Scholar

Samantha Warren
General Studies Honors

Off Campus or Special Interest Courses

Dr. Ann Farrell
Advanced Seminar in Education: Innovative Practices, Pedagogical Content Knowledge (EdL 991), team taught for the West/Central Excel Center, Spring 2005

Curriculum and Data Analysis Workshop (ED 670), funded by ODE, team-taught with Drs. Michelle Reed (M&S) and Tracy Rusch (TED), November 2004-May 2005
Fractions, Ratios, Decimals and Percents (ED 670), funded, team-taught with Dr. Tracy Rusch, summer 2005

Introduction to Lesson Study (ED 670), funded, team-taught with Dr. Tracy Rusch, summer 2005

Dr. Michelle Reed

Curriculum and Data Analysis Workshop (ED 670), funded by ODE, team-taught with Drs. Ann Farrell (M&S) and Tracy Rusch (TED), November 2004-May 2005

Graduate Students Graduating

Ishwori Dhakal, M.S. in Applied Statistics, Research Associate, Medical School, University of Arkansas, Little Rock, Arkansas

Steven Dillenburger, M.S. in Mathematics

Micah Fuerst, M.S. in Mathematics, graduate student, Michigan State University

Sarah Gilchrist, M.S. in Mathematics

Brian Haley, M.S. in Mathematics

Sungwoo Kim, M.S. in Applied Statistics

Thomas Tilsch, M.S. in Applied Statistics, Procter & Gamble, Cincinnati

Lulu Wang, M.S. in Applied Statistics