

DEBRA K. INGRAM

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FACULTY POSITIONS

<u>Associate Professor</u> Department of Mathematics and Statistics Arkansas State University, State University, AR	August 2005 – present
<u>Assistant Professor</u> Department of Mathematics and Statistics Arkansas State University, State University, AR	2000 – 2005

EDUCATION

<u>Ph.D., Applied Statistics</u> , University of Memphis, Memphis, TN	2000
<u>M.S., Mathematics</u> , Arkansas State University, Jonesboro, AR	1997
<u>B.S., Mathematics</u> , University of Minnesota, Minneapolis, MN	1990

TEACHING EXPERIENCE AND HONORS

<u>Board of Trustees Faculty Award for Teaching Excellence</u> , Arkansas State University	2005
<u>Project NExT Fellow of the Mathematical Association of America</u>	2001-2002
<u>Research Assistant</u> , University of Memphis Research Advisor: Dr. Boxin Tang Work supported by National Science Foundation	1999 – 2000
<u>University of Memphis Graduate Assistant Meritorious Teaching Award</u>	2000
<u>Department of Mathematical Sciences, University of Memphis, Graduate Assistant Teaching Award</u>	2000
<u>Instructor and Graduate Teaching Assistant</u> , University of Memphis Department of Mathematical Sciences	1997 – 2000
<u>Instructor</u> , Arkansas State University Mid-South Alliance for Minority Participation: Summer Enrichment Program in Science, Engineering, Mathematics, and Technology (Program Director: Dr. Jane Gates)	1998
<u>Instructor and Graduate Teaching Assistant</u> , Arkansas State University Department of Computer Science and Mathematics	1995 – 1997

PUBLICATIONS

Ingram, D. and Tang, B., **Minimum G Aberration Design Construction and Design Tables for 24 Runs**, *Journal of Quality Technology*, 37 (2005), 101-114.

Belcher-Novosad, S. and Ingram, D., **Identifying Minimum G Aberration Designs from Hadamard Matrices of Order 28**, *Journal of the Arkansas Academy of Science*, 57 (2003), 202-205.

Beazley, M., Rickman, R., Ingram, D., Boutton, T., Russ, J., **Natural Abundances of Carbon Isotopes (^{14}C , ^{13}C) in Lichens and Calcium Oxalate Pruina: Implications for Archaeological and Paleoenvironmental Studies**, *Radiocarbon*, 44 (2003), 675-683.

Tang, B., Ma, F., Ingram, D., and Wang, H., **Bounds on the Maximum Number of Clear Two Factor Interactions for 2^{m-p} Designs of Resolution III and IV**, *The Canadian Journal of Statistics*, 30 (2002), 127-136.

Ingram, D. and Tang, B., **Efficient Computational Algorithms for Searching for Generalized Minimum Aberration Designs**, *American Journal of Mathematical and Management Sciences*, 21 (2001), 325-344

GRANTS FUNDED

Comprehensive Assistance in Mathematics for 6th-12th Grades to Improve Benchmark Performance, with S. Oleson, M. Hall, and C. Miller. Arkansas Department of Higher Education, \$100,765, funding period: June, 2004 - September, 2005. Workshop title: "Quantitative Literacy and Statistics."

Constructing Optimal Nonregular Designs for Experiments of 28 Runs – Part II: Minimum G_2 -aberration and Complementary Design Theory. Arkansas Science Information Liaison Office (SILO) Undergraduate Research Fellowship Program, \$3900, funding period: January 1, 2002 - July 31, 2002.

Constructing Optimal Nonregular Designs for Experiments of 28 Runs. Arkansas Science Information Liaison Office (SILO) Undergraduate Research Fellowship Program, \$3900, funding period: January 1, 2001 - October 31, 2001.

STUDENT RESEARCH ACTIVITIES

Amanda Gillion (B.S. Biology, May 2003), "Investigation of Time Resolved Luminescence Data with Regression Analysis." College of Arts and Sciences Dean's Research Award, \$400, 01/01/03 – 06/30/03.

Steffany Belcher-Novosad (B.S. Mathematics, B.S. Computer Science, May 2002), "Minimum G Aberration Designs from Hadamard Matrices of Order 28." Senior Honors Thesis, May 2002.

Steffany Belcher-Novosad (B.S. Mathematics, B.S. Computer Science, May 2002), "Constructing Optimal Nonregular Designs for Experiments of 28 Runs – Part II: Minimum G_2 Aberration and Complementary Design Theory." SILO Undergraduate Research Fellowship, \$3900, 01/01/02 – 07/31/02.

STUDENT RESEARCH ACTIVITIES (continued)

Steffany Belcher-Novosad (B.S. Mathematics, B.S. Computer Science, May 2002), “Constructing Optimal Nonregular Designs for Experiments of 28 Runs.” SILO Undergraduate Research Fellowship, \$3900, 01/01/01 – 10/31/01

SELECTED PRESENTATIONS

Some Optimal Nonregular Designs that Provide Alternatives to the 16-Run and 32-Run Regular Fractional Factorials, **Joint Statistical Meetings**, Minneapolis, MN, August 7, 2005

Optimal Nonregular Designs as Alternatives to the 16-Run and 32-Run Regular Fractional Factorials, **Invited talk, International Conference on Design of Experiments**, Memphis, TN, May 15, 2005.

Minimum G Aberration Design Construction, **Institute of Mathematical Statistics New Researchers Conference**, Toronto, Canada, August 5, 2004.

Nonregular Designs from Hadamard Matrices of Order 28: Undergraduate Research in the Statistical Design of Experiments, **National Meeting of the Council on Undergraduate Research**, La Crosse, WI, S. Novosad, A. Gillion, and D. Ingram, June 24, 2004.

Construction of Optimal Screening Designs from Hadamard Matrices, **Invited talk, Arkansas State University Statistics Symposium**, April 3, 2004.

Nonregular Designs with Generalized Minimum Aberration, **Invited talk, Simon Fraser University**, March 18, 2004.

Minimum G aberration Designs from Hadamard Matrices of Order 28, **Meeting of the Arkansas Academy of Science**, Fayetteville, AR, S. Novosad and D. Ingram, April 4, 2003.

Minimum G-aberration Design Construction and Design Tables for 24 Runs, **Spring Research Conference on Statistics in Industry and Technology**, Ann Arbor, MI, D. Ingram and B. Tang, May 21, 2002

Large-Run Design Construction Using Minimum G-aberration Criterion, **Annual Meeting of the Mathematical Association of America Oklahoma-Arkansas Section**, Arkadelphia, AR, S. Belcher-Novosad and D. Ingram, April 6, 2002

Minimum G-aberration Designs for Hadamard Matrices of Order 28, **Nebraska Conference for Undergraduate Women in Mathematics**, Lincoln, NE, S. Belcher-Novosad and D. Ingram, February 2, 2002

Evaluating Oxalate Rock Coating as a Holocene Paleoclimate Proxy, **Geological Society of America Annual Meeting**, Boston, MA, J. Russ, M. Beazley, R. Rickman, D. Ingram, and T. Boutton, November 6, 2001

Constructing Minimum G-aberration Designs of 28 Runs: Undergraduate Research in Experimental Design, **Joint Statistical Meetings**, Atlanta, GA, S. Belcher, B. Tang, and D. Ingram, August 6, 2001

PRESENTATIONS (continued)

Constructing Optimal Nonregular Designs for Experiments of 28 Runs, Arkansas Undergraduate Research Conference, Henderson State University, Arkadelphia, AR, S. Belcher and D. Ingram, April 21, 2001

The Construction of Generalized Minimum Aberration Designs by Efficient Algorithm, Joint Research Conference in Quality, Industry and Technology, University of Washington, D. Ingram and B. Tang, June 27, 2000

Efficient Computational Algorithms for Searching for Generalized Minimum Aberration Designs, Sixth International Conference on Statistics, Combinatorics, and Related Areas, University of South Alabama, D. Ingram and B. Tang, December 20, 1999