

# DAE2009 Conference Program

Department of Statistics, University of Missouri

**Problems, concerns and transportation, call Min Yang (573) 673-5713,  
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## Wednesday, Oct. 14

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**6:30-8:30 Reception and registration (Casual dinner and drinks) at the Wingate Inn.**

Food will be available until 10:00.

For participants staying in other hotels, email or call Min Yang to arrange transportation.

## Thursday, Oct.15

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**Breakfast is available at the Wingate, Stoney Creek and the Hampton Inn.**

7:30: transportation from Wingate.

7:50: transportation from Wingate, Stoney Creek, and Hampton inn.

8:00-           **Registration**

8:15-8:30:   **Welcome Remarks**.....N103A Stotler, Memorial Union

Nancy Flournoy, Conference Organizer

Michael O'Brien, Dean, College of Arts and Science

Dibyen Majumdar, DAE Steering Committee Chair

8:30-10:00: **Design for linear models**.....N103A Stotler, Memorial Union

Organizer: Dibyen Majumdar

Speakers:

Bradley Jones, JMP, Title: "Optimal Designs with Minimum Aliasing"

John Morgan, Virginia Tech, Title: "Weighted Optimality for Designed Experimentation"

Sabine Mersmann, TU Dortmund (Germany), Title: "Optimal approximate crossover designs for comparing t test treatments with a control"

10:00-10:30 **Coffee Break**.....N103C Stotler, Memorial Union

Multi-Grain Muffins and Fruit will be served; also this is the last time to order boxed lunches for Saturday at noon.

**Setup posters** (call Won Hyun 573-424-5221 if you need help)

10:30-12:00: **Optimal designs for nonlinear models**..N103A Stotler, Memorial Union

Organizer: John Stufken

Speakers:

Stefanie Biedermann, University of Southampton (England), Title: "Optimal designs for multivariable spline models"

Qing Liu, University of Wisconsin-Madison, Title: "Efficient Designs under Non-compensatory Choice Models"

Jason Kao, Arizona State University, Title: "Efficient Experimental Designs under a Nonlinear Model for Event-Related fMRI"

12:00-2:30 **Lunch and posters**.....N103C Stotler, Memorial Union

Mentee-Mentor Lunch pairings

2:30-4:00: **Design and Analysis of Clinical Trials**.....Jesse Wrench, Memorial Union  
Organizer: William F. Rosenberger

Speakers:

Liansheng Tang, George Mason University, Title: "A two-Stage Allocation Procedure for  
Monitoring Comparative Diagnostic Trials"

Yanqiong Zhang, Sanofi-Aventis, Title: "Sequential monitoring of randomization tests:  
theory and computation discussion"

Victoria Plamadeala, George Mason University, Title: "Properties of Randomization  
Tests for Clinical Trials"

4:00-4:30 **Coffee Break**.....N103C Stotler, Memorial Union  
**Take down posters** (call Won Hyun 573-424-5221 if you need help)

4:30-6:00 **New Directions in Experimental Design**..Jesse Wrench, Memorial Union  
Organizer: Nancy Flournoy

Speakers:

Jason Loeppky, University of British Columbia, Title "Batch Sequential Designs for  
Computer Experiments"

John Stufken, University of Georgia, Title: "On Locally Optimal Designs for Generalized  
Linear Models with Group Effects"

Vladimir Dragalin, Wyeth Research, Title: "Adaptive Clinical Trials: Opportunities and  
Challenges in Design and Implementation"

7:00-9:00 **Dinner**.....Ballroom, Reynolds Alumni Center  
Reserved table for Steering Committee  
**Transportation to hotels**

## Friday, Oct. 16

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### **Breakfast at hotels.**

7:45: transportation from Wingate.

8:05: transportation from Wingate, Stoney Creek, and Hampton inn.

8:00 Registration

8:30-10:00: **Efficient group sequential and adaptive designs**...Monsanto  
Auditorium, Life Science Center

Organizer: Tze Leung Lai and Jay Bartroff

Speakers:

Dan Gillen, UC Irvine, Title: "On the use of prior information for flexibly monitoring  
group sequential survival trials"

Bruce Ankenman, Northwestern University, Title: Sequential Design of Experiments for  
Stochastic Kriging"

Jay Bartroff: University of Southern California, Title: Multistage tests of multiple  
hypotheses

10:00-10:30 **Coffee Break**.....McQuinn Atrium, Life Science Center  
**Set up poster** (call Won Hyun 573-424-5221 if you need help)

10:30-12:00 **Response-adaptive designs**.....Monsanto Aud., Life Science

Organizer: Valerii V. Fedorov

Speakers:

Luc Pronzato, National Center for Scientific Research (France), Title: "Adaptive  
penalized optimal design with application to dose finding"

Yu-Hui H. Chang, University of Iowa, Title: "An adaptive, dose exploration design for  
the estimation of a Human Colonizing Dose 50 (HCD50) and Human Colonizing  
Dose 90 (HCD90)"

Assaf P. Oron, University of Washington, Title: "Small-Sample Behavior of Long-  
Memory Phase I Cancer Trial Designs"

12:00-2:30 **Lunch and posters**.....McQuinn Atrium, Life Science

2:15 **Take down posters** (call Won Hyun 573-424-5221 if you need help)

2:30-4:00 **Fractional Factorial Design**.....Jesse Wrench, Memorial Union  
Organizer: Hongquan Xu

Speaker:

Ching-Shui Cheng, University of California at Berkeley, Title: "Multistratum Fractional Factorial Designs"

Frederick K. H. Phoa, Institute of Statistical Science, Academia Sinica, Taiwan, ROC,  
Title: "Quaternary-Code Designs: A New Class of Nonregular Fractional Factorial Designs"

Peng Zeng, Auburn University, Title: "A Coset Pattern Identity between a  $2^{n-p}$  Design and its Complement"

4:00-4:30 **Coffee Break** .....Jesse Wrench, Memorial Union

4:30-6:00: **Bayesian design**.....Jesse Wrench, Memorial Union  
Organizer: Cheng Yi

Speakers:

Yi Cheng, U of Indiana South Bend, Title: "Bayesian Optimal Randomized Designs for Clinical Trials"

Shenghua Fan, California State University, Title: "Bayesian and Sequential Optimal Designs for Dose-finding Trials with Trinomial Responses"

Xuelin Huang, University of Texas MD Anderson Cancer Center, Title: "Using Short-Term Response to Facilitate Adaptive Randomization for Survival Clinical Trials"

6:30-9:00 **Cocktails and dinner**.....Ballroom, Reynolds Alumni Center  
**Transportation to hotels**

**Saturday, Oct. 17**

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**Breakfast at hotels.**

7:45: transportation from Wingate.

8:05: transportation from Wingate, Stoney Creek, and Hampton inn.

8:30-10:00 **Computer experiment**.....N103A Stotler, Memorial Union

Organizer: Herbie Lee

Speakers:

Herbie Lee, University of California, Santa Cruz, Title: "Design and Analysis of  
Computer Experiments"

Fei Liu, University of Missouri, Title: "Bayesian Analysis for Spatially Correlated  
Functional Data in Complex Computer Experiments"

Bobby Gramacy, University of Cambridge (England), Title: "Surrogate models and  
sequential design for constrained nonlinear stochastic optimization"

10:00-10:30 **Coffee Break**.....N103C Stotler, Memorial Union

10:30-12:00 **Covariate-Adjusted Response-Adaptive (CARA) Randomization  
in Clinical Trial**.....N103 Stotler, Memorial Union

Organizer: Feifang Hu

Speakers:

Thomas Gwise, FDA, Title: "Applying CARA Randomization to Medical Device Studies"

Feifang Hu, University of Virginia, Title: "Covariate-Adjusted Response-Adaptive  
Randomization: Optimization and Ethics"

Yuehui Wu, GlaxoSmithKline, Title: "Two-stage design for dose-finding that accounts  
for both efficacy and safety"

12:00-2:00

**Box Lunches**.....On your own

**Call for Transportation**

(673-5713)

2:00-5:00 **Collaborative working groups**.....Middlebush 10, 101, 134A, 307F  
We encourage you to stay for all the invited sessions, and since it is not so easy to get out of Columbia, some of you may want/need to stay over Saturday night. It is a great time to work with a co-author on a paper, start a new paper with new colleagues or just toss around ideas. We have reserved a number of small conference rooms for groups to meet. Sign-up sheets will be circulated during the conference. If you are staying over, you can also use this time to explore our charming City of Columbia.

6:30–9:00 **Dinner**.....Min Yang host  
Meet at 6:00 at Middlebush 134 to walk with Min or meet at Boone Tavern.

## **Poster session I (Thursday)**

### **Burden of Disease, Health Status And Clinical Trials. A Statistical Overview**

**Grace Maria Antony**, Clinical research

### **Row-column designs good for many purposes**

**R. A. Bailey**, Queen Mary, University of London

### **Optimal supersaturated designs**

**Ashish Das**, Indian Institute of Technology Bombay, Mumbai, India

### **Evolutionary Markov Chain Monte Carlo Algorithms for Expected Utility Maximization**

Ramiro Ruiz, **Marco A. R. Ferreira** and Alexandra M. Schmidt

### **Optimal supersaturated designs under measures of multi-collinearity**

**C.J. Marley**, D.C. Woods and S.M. Lewis, University of Southampton

### **D-optimum designs for a dynamic model**

**Kieran Martin**, Stefanie Biedermann, Sue Lewis and Dave Woods, University of Southampton

### **Sparse Sampling Designs in Quadratic Regression With Random Effects**

**Tobias Mielke**, Otto-von-Guericke-University Magdeburg

### **Efficient modelling of microbial growth**

**Farinaz Monadjemi**, Campden BRI, United Kingdom

### **Min-Max Robust Parameter Design**

**Siuli Mukhopadhyay** and Debraj Chakraborty, Indian Institute of Technology Bombay, India

### **Row-Wise Complementary Designs**

**Chien-Yu Peng** and Shao-Wei Cheng, Academia Sinica and National Tsing-Hua University, Taiwan

### **Optimal and Efficient Crossover Designs Under Subject Dropout**

**Ozgu Issever Ozan**, University of Georgia

### **Very fast enumeration of orthogonal arrays**

**Eric D. Schoen** and Pieter T. Eendebak, TNO Science & Industry and U. of Antwerp

### **Methods of estimation of sensitivity indices --a review and comparison**

**Josh Svenson**, The Ohio State University

### **On de la Garza Phenomenon**

**Min Yang**, University of Missouri

### **Optimal Crossover Designs for Comparing Test Treatments to a Control Treatment When Subject Effects are Random**

**Wei Zheng**, University of Illinois at Chicago

## Poster session II (Friday)

### **Optimal and Sequential Design for Bridge Regression**

**S.B. Carnaby** and D.C. Woods, University of Southampton

### **Bayesian Adaptive Design for State-space Models with Covariates**

**A.N. Dolia**, S.M. Lewis, S.K. Sahu, D.C. Woods, University of Southampton

### **Comparison of Screening Methods in the Presence of Interactions**

**Danel Draguljić**<sup>(1)</sup>, joint work with Dave Woods<sup>(2)</sup>, Sue Lewis<sup>(2)</sup>, and Angela Dean<sup>(1)</sup>

<sup>(1)</sup> *The Ohio State University*

<sup>(2)</sup> *University of Southampton, UK*

### **Weighted space-filling designs for dependent variables with application to deterministic computer codes**

**M. Feddag**, D. Woods, and V. Bowmany, University of Southampton

### **Generation of Fractional Factorial Designs**

**Roberto Fontana** and Giovanni Pistone, aDIMAT Politecnico di Torino, Italy

### **Springback behavior Prediction and Compensation of Aluminum Alloy Sheets in Bending, especially V-Bending operation**

**Vahid Ghomi**, University Malaya

### **Optimal Designs For Non-Monotone Response Functions**

**Seung Won Hyun**, University of Missouri

### **Equivalence of factorial designs with both qualitative and quantitative factors.**

**Tena Katsaounis**, Ohio State University at Mansfield

### **Optimal designs for multi-objective dose-ranging studies**

**S. Krishna Padmanabhan**, Wyeth Research

### **Fast Calibration of Complex Computer Models**

**Matthew Pratola**, Simon Fraser University

### **Nested Latin hypercube designs**

**Peter Z. G. Qian**, Department of Statistics, University of Wisconsin-Madison

### **Search Design in Tree Structure**

**Angshuman Sarkar**, Visva-Bharati University, India.

### **Efficiencies of Reinforced BIB and Augmented Block Designs in Test Families vs Control Experiments**

**P. M. Wachira**<sup>1</sup>, F. Onyango<sup>2</sup> and E. Onginjo<sup>1</sup>

<sup>1</sup>*Kenya Sugar Research Foundation, Kenya*

<sup>2</sup>*Maseno University, Kisumu Kenya*

### **D-optimal designs for the bivariate probit model for toxicity and efficacy**

**Xie Sun**, University of Missouri

**Optimal Blocked Semifoldover Designs**

William Li<sup>1</sup> and **Po Yang**<sup>2</sup>,

1.University of Minnesota

2.DePaul University

**Optimal allocation with multiple treatments for Weibull Models**

Dibyen Majumdar and **Cuilan Zhang**, University of Illinois at Chicago

**Information in adaptive optimal designs**

**Ping Yao**, University of Northern Illinois