

# AGENDA

## Sunday, April 19

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- 7:30 - 8:30 am      **Registration and Check-In for Workshop Participants**
- 8:30 am - 5:00 pm    **Workshop: *The Analysis of Messy Data***  
*Dallas Johnson & George Milliken, Kansas State University*
- 7:00 – 10:00 pm      **Social Mixer** (*Snacks and Cash Bar*)

## Monday, April 20

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- 8:00 – 10:00 am      **Registration and Check-In for Conference Participants**
- 8:30 – 8:45 am        **Welcome**

Session #1  
8:45 – 10:15 am

**Associating Single Nucleotide Polymorphisms (SNPs) with Binary**

*Alexander E. Lipka, Purdue University*  
*George P. McCabe, Purdue University*  
*R.W. Doerge, Purdue University*

**Bayesian Nonparametric Bioassay Estimation of an Unknown Dose**

*Bahman Shafii, University of Idaho*  
*William J. Price, University of Idaho*

**Relative Potency Estimation in Direct Bioassay with Measurement Errors**

*Weixing Song, Kansas State University*

- 10:15 – 10:45 am      **Break & Poster Session**

Session #2  
10:45 am – 12:00 pm    **KEYNOTE ADDRESS**

**The Process of Designing Experiments**

*George Milliken, Kansas State University*

- 12:00 – 1:30 pm      **Lunch**

Session #3  
1:30 – 3:00 pm

**Predicting the Time of 50% Seed Viability in Maize**

*Allan Trapp II, Iowa State University*  
*Philip Dixon, Iowa State University*  
*Mark Widrlechner, USDA-ARS North Central Regional Plan Introduction Station*

**Comparisons of Three Parametric Methods for Testing Equality of Binomially Distributed Populations**

*Jixiang Wu, Mississippi State University*  
*Johnie N. Jenkins, USDA-ARS*  
*Jack C. McCarty, USDA-ARS*

**Bayesian Statistical methods to Model Heterogeneity in Cow- and – Herd level**

## **Relationships between production and reproduction in Dairy Cows**

*Nora M. Bello, Michigan State University*

*Robert J. Tempelman, Michigan State University*

3:00 – 3:30 pm      **Break & Poster Session**

Session #4

3:30 – 5:00 pm

## **Some Messy Experimental Designs**

*Dallas Johnson, Kansas State University*

6:30 – 9:00 pm      **Student Pizza Party**

9:00 – 12:00 pm      **Kansas Country Dance**

**Tuesday, April 21**

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Session #5

8:30 – 10:00

## **Statistical Issues in Next-Generation Sequencing Data**

*Paul Livermore Auer, Purdue University*

*R.W. Doerge, Purdue University*

## **Comparative Study of Time Series and Multiple Regression for Modeling Dependence of Cattle Body Temperature on Environmental Variables During Heat Stress**

*Manoj Pathak, University of Nebraska-Lincoln*

*Dr. A.M. Parkhurst, University of Nebraska-Lincoln*

*Dr. Rodrigo Arias, University of Nebraska-Lincoln*

*Dr. T. L. Mader, University of Nebraska-Lincoln*

## **Application of the DYA method to compare wheat variety yields**

*Arlin Feyerherm, Kansas State University*

10:00 – 11:00 am      **Break & Poster Session**

Session #6

11:00 – 12:00

## **A General P-value and Applications to Multiple Testing**

*Joshua Habiger, University of South Carolina*

*Edsel A. Pena, University of South Carolina*

## **Statistical Methods for Affymetrix Tiling Array Data**

*Gayla R. Olbricht, Purdue University*

*Bruce A. Craig, Purdue University*

*R. W. Doerge, Purdue University*

12:00 – 1:30 pm      **Lunch**

Session #7

1:30 – 3:00 pm

## **Correcting Bias in Angler Effort Estimation Using Aerial Counts**

*Byran Smucker, Penn State University*

*Robert Lorantas, Pennsylvania Fish and Boat Commission*

*James Rosenberger, Penn State University*

**The Morrow Plots: A National Landmark with continued Scientific Relevance**

*Susanne Aref, Aref Consulting Group LLC*

*Michelle M. Wander, University of Illinois at Urbana-Champaign*

**Mixed Model Quantitative Trait Loci Analysis**

*Cherie A. Ochsenfeld, Purdue University*

*Kristofer Jennings, Purdue University*

*R. W. Doerge, Purdue University*

3:00 – 3:30 pm

**Break**

Session #8

3:30 – 5:00 pm

**A Tree-specific stem profile model for white spruce: A calibration approach by nonlinear mixed-effects modeling**

*Yuqing Yang, Forest Management Branch, Alberta Department of Sustainable Resource Development*

*Shongming Huang, Forest Management Branch, Alberta Department of Sustainable Resource Development*

*Shawn X. Meng, Forest Management Branch, Alberta Department of Sustainable Resource Development*

**Statistical Challenges in Genomic Mapping of Complex Traits**

*Jianming Yu, Kansas State University*

**A Sequential Bayesian Calculation for the Classification of Discrete, Ordered Data**

*Michael Anderson, Kansas State University*

## Posters

**Statistical and Numerical Dependence in Gene Expression Summaries**

*John R. Stevens, Utah State University*

*Gabriel Nicholas, University of Wisconsin at Madison*

**Non-Randomness in Genic Order and Spatial Structure of a Genome**

*Douglas Baumann, Purdue University*

**Using Time Series to Study Dynamics of Sweat Rates of Holstein Cows Exposed to Initial and Prolonged Solar Heat Stress**

*Bixia Liang, University of Nebraska-Lincoln*

*A. M. Parkhurst, University of Nebraska-Lincoln*

*C.N. Lee, University of Hawaii at Hawaii*

*K.G. Gebremedhin 3, Cornell University, Ithaca*

*P.E. Hillman, Cornell University, Ithaca*

*R.J. Collier, University of Arizona*

**Comparing Experimental Designs for a Bi-Logistical Model used to Estimate Heat Stress when Moving Feedlot Cattle**

*Xiaopeng Li, University of Nebraska-Lincoln*

*Anne M. Parkhurst, University of Nebraska-Lincoln*

*Terry L. Mader, University of Nebraska-Lincoln*

**Using Time Series to Study Effect of Air Temperature and Humidity on Body Temperature of Cows in Puerto Rico**

*Yan Zeng, University of Nebraska-Lincoln*

*A. M. Parkhurst, University of Nebraska-Lincoln*

*J. Pantoja, University of Puerto Rico*

**Development of Precipitation-Runoff Relationship Nekarood watershed in Mazandaran Province, Iran**

*Karim Soleimani, College of Natural Resources, University of Mazandaran.Sari*

*Mahmood habibnezhad, College of Natural Resources, University of Mazandaran.Sari*

**Using Compartment Models to Evaluate the Fate of Sulfamethazine in Surface Water**

*Garritt Page, Iowa State University*

*Phillip Dixon, Iowa State University*

*Joel Coats, Iowa State University*

*Thomas Moorman, USDA-ARS National Soil Tilth*

**A Simulation Study to Evaluate the Analysis of Non-normal Data with Correlated Errors**

*Emily Hagel, University of Nebraska*

*Walter Stroup, University of Nebraska*

**The Statistical Analysis of Dynamics of Organic Substance and Microbiotic Complex in Root-inhabited Media and theirs Relation with Plants Productivity in Conditions of Primary Soil Formation**

*V.K. Mukhomorov, Agrophysical Institute, St. Petersburg, Russia*

**Integrated Analysis of Genomic and Quantitative Trait Data**

*Tilman Achberger, Purdue University*

*Ivan Baxter, Purdue University*

*James Fleet, Purdue University*

*David Salt, Purdue University*

*R.W. Doerge, Purdue University*

**Inferring Genetic Regulatory Interactions with Dynamic Bayesian Networks and Kalman Estimators**

*Andrea Rau, Purdue University & INRA*

*Florence Jaffr zic, INRA*

*Jean-Louis Foulley, INRA*

*Rebecca Doerge, Purdue University*

**What caused the Death? A Random Act or Exceeding an Individual Tolerance, and how to tell.**

*Man-Yu Yum, Iowa State University*

*Philip M. Dixon, Iowa State University*

**Associating (Sorghum) GUS expression with Cinfu and Huck Promoters**

*Brian Denton, Purdue University*

*Balasubramaniam Muthukumar, University of Georgia*

*Jeff Bennetzen, University of Georgia*

*R. W. Doerge, Purdue University*

**Proc Report in Style**

*Wendy Boberg, AFMC*

**Seven Years of Statcom at Purdue University: Managing a Growing Number of Student Volunteers**

*Douglas Baumann, Purdue University*

*Andrea M. Rau, Purdue University*

# Instructions for Poster Presenters

21<sup>st</sup> Annual

Kansas State University Conference on Applied Statistics in Agriculture

Poster presenters:

Here is some information that you may find helpful in preparing your presentation.

The posters will be displayed, as in years past, on tables around the outside of the room where the conference attendees take breaks. We will provide backing boards that are 28" by 40" to which you can tack your displays, as well as tacks with which to fasten them. Each presenter may use two of these boards, and you may orient them however you like. You may use any size paper that you like, although you will find that larger fonts, hence requiring larger paper sizes, are more easily read.

You may put your poster up Sunday night or Monday morning; we would like to display them for the entire length of the conference (from Monday morning through Tuesday afternoon).

This year, we are making an effort to make posters a somewhat more visible aspect of the conference than they have been in the past. To further that end, we will have one special time during the conference when we put an emphasis on the posters. That will be at mid-morning on Tuesday. Instead of taking our usual half hour break at 10:00 am on Tuesday, we will take an hour for a combination break/poster session. We ask all poster presenters to be with their posters from 10:00 to 11:00 to visit with folks who are coming by. This is your chance to talk with a lot of people about your work. The next contributed paper session then will start at 11:00.

One additional option will be available to you as a presenter. The program is going to allow you one minute and one Power Point slide to give a "preview" or "trailer" for your poster at the tail end of that early session (at 10:00 am on Tuesday). You can e-mail your single slide as a Power Point slide or a Word document (to be edited to Power Point) before the conference to Karen Leonard who is the departmental staff person handling conference logistics; her e-mail is [kcleon77@ksu.edu](mailto:kcleon77@ksu.edu). (If you choose the Word option, be careful to use large font and make it so that it can be seen on one slide.) Alternatively, you can bring to the conference a flash drive with one slide that we can put into a very short Power Point slide show and we add it in then. I encourage you to put something on this slide that is not too technical, but which hints at the subject of your poster. It can be a graphic, text, a picture, or anything you want. We will then have you get up in front of the conference and take a minute to provide the conferees a brief idea of what you are talking about. (If you don't have a slide, we'll still give you your minute.)

We would like you to keep your poster on display through the break time in the afternoon on Tuesday (i.e., until 3:30) but if you need to leave the conference before that we will understand.