

Call for Papers

www.ksu.edu/stats/agstat.conference

19th Annual KSU Conference on Applied Statistics in Agriculture

The Department of Statistics at Kansas State University will host the nineteenth annual KSU Conference on Applied Statistics in Agriculture, April 29 – May 1, 2007, at the Manhattan Clarion Hotel (formerly the Holiday Inn/Holidome), Manhattan, Kansas. The purpose of the conference is to provide a forum to discuss statistical issues, problems and solutions that have been motivated by agricultural concerns.

The keynote speaker is Dr. Rebecca W. Doerge. R.W. Doerge has been employed at Purdue University since 1995 in a joint appointment between the Schools of Agriculture (Agronomy) and Science (Statistics). Prior to joining Purdue, Dr. Doerge was a postdoctoral fellow at Cornell University (1993-1995). Dr. Doerge received a Ph.D. in statistics at North Carolina State University in 1993.

Rebecca will present a one-day workshop on quantitative trait locus (QTL) mapping that is intended for both Applied statisticians and Biologists who are interested in learning the necessary genetic and statistical background required for estimating a genetic map based on genetic markers, mapping QTL relative to a genetic map, and mapping expression QTL (eQTL) as provided from microarray data. No prior experience with QTL mapping is required.

This workshop will explain the concepts of estimating and using a genetic map to detect/locate QTL via single marker analysis, interval mapping, and composite interval mapping for a single trait of interest in an experimental population. Statistical issues such as sample size, marker number, and estimating threshold criteria for declaration of statistically significant QTL will be presented.

The latter part of the workshop will focus new challenges to integrate different types of information for the purpose of elucidating the genetic architecture of complex traits. To address some of these challenges Rebecca and colleagues at UC Davis have combined QTL analysis with microarray data to characterize the genomic architecture that controls quantitative traits in Arabidopsis, the model organism for plants. Using this real data example as provided from Affymetrix technology, 211 individuals from a segregating recombinant inbred Arabidopsis population provide transcript information on 22,810 genes, in both control and treatment conditions. This data will be used to illustrate the current and future state of eQTL mapping.

While no computer software will be demonstrated, all examples will be presented using well known and freely available software. The participants are encouraged to bring a simple calculator for basic calculations.

This announcement is a call for papers from the statistical and agricultural communities. The conference is open to talks or poster sessions by scientists, not necessarily statisticians, with an emphasis on applied statistical issues related to agriculture. Presentations made jointly by a statistician and a researcher in the agriculture sciences would be of special interest. Abstracts should be submitted to Tamara Bratt, Department of Statistics, 101 Dickens Hall, Kansas State University, Manhattan, KS 66506-0802 no later than January 15, 2007.

Each contributed paper presentation will be allowed approximately 25 minutes. A refereed proceedings containing acceptable publications will be published after the conference.

A conference announcement and registration form will be distributed in February 2007. To be added to our mailing list, please send an e-mail to tcbratt@ksu.edu.

Support for graduate students who wish to attend the conference is available. Preference is given to graduate students who plan to stay for the entire conference and who present a paper or poster.



April 29–May 1, 2007 Abstract Submission Form

Mail, fax or e-mail abstract by January 15, 2007 to: Tamara Bratt, Conference on Applied Statistics in Agriculture, Department of Statistics, 101 Dickens Hall, Kansas State University, Manhattan, KS 66506–0802, Fax 785-532-7736, e-mail tcbratt@ksu.edu.

Try our online abstract submission form:

www.ksu.edu/stats/agstat.conference/online_abstract_form.htm

Contact Person: _____

Department: _____

Company: _____

Mailing Address: _____

E-mail Address: _____

Phone: _____

Type of presentation: Paper Poster

Title

Author(s)

Affiliation(s)

Abstract



April 29–May 1, 2007
Manhattan Clarion Hotel
Manhattan, Kansas
Tentative Schedule

Saturday, April 28

12:00 pm Golf Scramble Tournament (Lots of fun!)

Sunday, April 29

8:30 am – 5:00 pm Workshop: Introduction to Quantitative Trait Locus (QTL) Mapping in Experimental Populations: Past and Present

Monday, April 30

8:30 am – 8:45 am Welcome
8:45 am – 10:15 am Session #1
10:15 am – 10:45 am Break
10:45 am – 12:00 pm Session #2 (Keynote Address)
12:00 pm – 1:30 pm Buffet Lunch (included in registration fee)
1:30 pm – 3:00 pm Session #3
3:00 pm – 3:30 pm Break
3:30 pm – 5:00 pm Session #4
9:00 pm – 12:00 am Kansas Country Dance (included in registration fee)—learn how to line dance.

Tuesday, May 1

8:30 am – 10:00 am Session #5
10:00 am – 10:30 am Break
10:30 am – 12:00 pm Session #6
12:00 pm – 1:30 pm Buffet Lunch (included in registration fee)
1:30 pm – 3:00 pm Session #7
3:00 pm – 3:30 pm Break
3:30 pm – 5:00 pm Session #8

Each session, except for Session #2, will consist of three, 25 minute presentations. A poster session will be maintained throughout each day in an adjoining conference room.

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