

NCCC170: Research Advances in Agricultural Statistics

Annual meeting

Hosted at University of Wisconsin-Madison, Madison, WI

Meeting held both in-person and by Zoom

June 15-16, 2023

Members present for business meeting and technical program: Nora Bello (OH), Bruce Craig (IN, Admin.), Xin Dai (UT), Philip Dixon (IA), Susan Durham (UT), Samuel Fernandes (AR), Carla Goad (OK), Clark Kogan (WA), *Nick Keuler (WI), Raul Macchiavelli (PR), Jarad Niemi (IA), Julia Piaskowski (ID), Aaron Rendahl (MN), *Simon Riley (FL), Daniel Runcie (CA), John Stevens (UT), Rob Tempelman (MI) (* not currently on the NIMSS participant list)

Members present for technical program but not business meeting: Kathy Hanford (NE), Kathy Yeater (USDA-ARS)

Others present for technical program: Steven Moen (WI), Brian Yandell (WI), Travis Galoppo (Sarcos Robotics; guest of Clark Kogan, WA)

2023 Officers: Nora Bello, Chair; Susan Durham, Secretary; Aaron Rendahl, Program Chair; Nick Keuler, local arrangements

Minutes:

Technical program: The meeting began at 9:00 a.m. CT on Thursday, June 15, 2023, with a welcome and opening remarks by Brian Yandell, Director, Biometry Program, University Wisconsin-Madison. Presentations continued at 8:45 am on Friday, June 16, 2023.

The technical program consisted of the following presentations and discussions:

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| Brian Yandell <i>University of Wisconsin-Madison</i> | From biometry to statistics collaboration at UW-Madison |
| Philip Dixon <i>Iowa State University</i> | Estimating genetic gain—Why the right type of BLUP matters |
| Samuel Fernandes <i>University of Arkansas</i> | Improving genomic prediction with synthetic traits |
| Jarad Niemi <i>Iowa State University</i> | Gaussian processes with functional inputs with applications to the Water Erosion Prediction Project computer model |

Carla Goad
Oklahoma State University
Nick Keuler
University of Wisconsin-Madison
Jarad Niemi
Iowa State University
Steven Moen
University of Wisconsin-Madison

Discussion panel: Online teaching

John Stevens
Utah State University

Applied statistics with ChatGPT: Boons and banes

Clark Kogan
Washington State University

Bayesian risk-based surveillance models for pathogen detection in aquaculture

Steven Moen
University of Wisconsin-Madison

A look into two statistical consulting projects

Dan Runcie
University of California, Davis

Discussion: Why do we teach ANOVA for factorials?

Julia Piaskowski
University of Idaho

Discussion: Reproducibility in the agricultural sciences

Business meeting: The business meeting began at 10:09 a.m. CT on Friday, June 16, 2023. Nora Bello presided. The following items were discussed:

1. Nora thanked Nick for local arrangements and Aaron for organizing the technical program.
2. Christina Hamilton, NCRA Assistant Director and NIMSS System Administrator, welcomed the group to Madison and talked about the workings of multistate projects, including training and support opportunities.
3. Old business
 - 3.1. Nora reminded the group that the annual report is soon due. She will distribute a Google document into which participants can enter their contributions for the annual report. She requests input within the next two weeks.
 - 3.2. Participants should review and update their NIMSS listings, found here https://www.nimss.org/appendix_e/project?id=18798. Persons wanting to join the group should work through their state AES office.
 - 3.3. Participants are reminded to add acknowledgement of NCCC170 and Hatch funding to papers, etc., as appropriate.
 - 3.4. Nora provided a link to which participants can upload photos related to this year's meeting.
 - 3.5. Nora led a review of current project objectives.

- 3.6. Jarad Niemi provided an update on the new NCCC170 website that he is constructing. There was discussion about purpose, content, and domain. Bruce Craig noted that the website could support project objectives regarding ongoing education and mentoring.
 - 3.7. Nora reminded participants about the email message to the group from Walt Stroup. He and two colleagues are working on a second edition to his CRC Generalized Linear Mixed Models textbook and would welcome review help. Willing persons can contact Walt directly.
4. New business
 - 4.1. Planning for future meetings
 - 4.1.1. 2024: University of Puerto Rico, Mayagüez, with Raúl Macchiavelli as local host. Tentative dates are June 20-21. Tentative program chair is Kathy Yeater.
 - 4.1.2. 2025: Host possibilities are University of Idaho, University of Arkansas, and Utah State University.
 - 4.1.3. 2026: Host possibility is University of California-Davis.
5. Photos were made of the group in front of Babcock Hall, as well as other places. We looked fabulous and clearly were having a good time.
 6. The business meeting adjourned at 10:55 am.

Following the business meeting, some participants did a guided tour of the D.C. Smith Instructional Greenhouse at UW-Madison and then enjoyed lunch together before departing.