South Carolina Chapter American Statistical Association 45th Annual Meeting

SC-ASA Palmetto Symposium

Friday, March 25th, 2016

Capstone Conference Center University of South Carolina Columbia, SC 29208

AMERICAN STATISTICAL ASSOCIATION

Promoting the Practice and Profession of Statistics

Schedule

10:00 AM	**Introductions (Capstone Conference Center)**
10:15 AM	**Student presentations**
11:45 AM	**Networking and lunch**
12:45 PM	**SC-ASA business meeting**
1:00 PM	**Student presentations**
2:00 PM	**Short recess**
2:30 PM	**Invited speaker**
3:30 PM	**Student awards**

Invited Presentation

Butch Tsiatis, North Carolina State University
Professor of Statistics,

Title: Inference on treatment effects from a randomized clinical trial in the presence of premature treatment discontinuation: The SYNERGY trial

Abstract: The SYNERGY trial was a randomized, open-label, multi-center clinical trial designed to compare two anti-coagulant drugs on the basis of various time-to-event endpoints. As usual, the protocol dictated circumstances, such as occurrence of a serious adverse event, under which it was mandatory for a subject to discontinue his/her assigned treatment. In addition, as in the execution of many trials, some subjects did not complete their assigned treatment regimens but rather discontinued study drug prematurely for other, ``optional'' reasons not dictated by the protocol; e.g., switching to the other study treatment or stopping treatment altogether at their or their provider's discretion. In this situation, as an adjunct to the usual intent-to-treat analysis, interest may focus on inference on the ``true'' treatment effect; i.e., the difference in survival distributions were all subjects in the population to follow the assigned regimens and, if to discontinue treatment, do so only for mandatory, but not optional, reasons. Approaches to inference on this effect used commonly in practice are ad hoc and hence are not generally valid. We use SYNERGY as a motivating case study to propose generally-applicable methods for estimation and testing of this ``true'' treatment effect by placing the problem in the context of causal inference on dynamic treatment regimes. Analysis of data from SYNERGY and simulation studies demonstrate the utility of the methods.

Students' Presentations

Morning session:

1) Ge Zhao (University of South Carolina)
2) Chong Ma (University of South Carolina)
3) Shiwen Shen (University of South Carolina)
4) Tao Yang (Clemson University)
5) Lin Dai (Medical University of South Carolina)

Afternoon session:

1) Yan Liu (Clemson University)
2) Yunyun Jiang (Medical University of South Carolina)
3) Prabhashi Wickramasingha (Clemson University)
4) Jaime Speiser (Medical University of South Carolina)

Did you know?

The American Statistical Association, a scientific and educational society founded in Boston in 1839, is the second-oldest, continuously operating professional society in the United States. For 169 years, the ASA has provided its members and the public with up-to-date, useful information about statistics. The ASA has a proud tradition of service to statisticians, quantitative scientists, and users of statistics across a wealth of academic areas and applications.

ASA Mission

The ASA mission is to promote excellence in the application of statistical science across the wealth of human endeavor, specifically to:

- Support excellence in statistical practice, research, journals, and meetings
- Work for the improvement of statistical education at all levels
- Promote the proper application of statistics
- Anticipate and meet member needs
- Use the discipline of statistics to enhance human welfare
- Seek opportunities to advance the statistics profession

Organizing Committee

The SC ASA Executive Committee organized the meeting.

Chris McMahan, PhD, Clemson University
Alexander Mclain, PhD, USC
Bethany Wolf, PhD, MUSC
Dewei Wang, PHD, USC (Interim)