San Francisco Chapter of the American Statistical Association

Chapter Elections Meeting
And
Student Travel Awards

Date: June 2nd
Time: 4 p.m. – 6 p.m.
Place: VBT 219, California State University East Bay, Hayward, CA

Chapter Elections: 4:00 – 4:30 p.m.
Nominees:

President Elect - Kit Lau
VP- Biostatistics - Ruixiao Lu
VP- General Applications - Clinton Brownley
Secretary - Jacqueline Shaffer
Treasurer - Doris Shu

Nominations are still open.

Refreshments: 4:30 – 5:00 p.m.
Student Presentations: 5:00 – 6:00 p.m.

Each year the SF chapter of ASA gives student travel awards to support their presentations at the following JSM. This year each our recipients are:

Aida Yazdanparast and Tony Tran
Department of Statistics and Biostatistics
California State University East Bay

Effects of Oil Spills on Birds

Abstract

The Deepwater Horizon oil spill was an ecologically devastating event in the Gulf of Mexico, which saw an estimated release of over 4 million barrels of oil after flowing for three months in 2010. The impact of the spill persisted despite the well's capping. Understanding the progression and making use of the details in this event is the first step in planning to improve response time and reaction strategy for future disasters relating to a local avian population. The aim of this project is to dynamically illustrate the important features of the data set utilizing a blend of analytics and graphics executed through R and Tableau software. In our data set, we focus on 7,229 birds that were documented between May and October. We will explore predicted probabilities as well as drill into the layers on a variety of canvases to uncover relevant information unseen through raw data for policymakers, environmental planners and ecology researchers, and others fascinated by the importance of birds in our ecosystem.

Luca Pozzi
Division of Biostatistics
University of California, Berkeley

A Bayesian Adaptive Dose Selection Procedure with a Count Endpoint

Abstract

In clinical drug development, a sequence of studies is carried out to identify an efficacious and safe dose of a newly

developed pharmaceutical drug. Adaptive trial designs can considerably improve upon traditional designs, by modifying design aspects of the ongoing trial, including early stopping, adding or dropping doses, or changing the sample size. In the present work we propose a two-stage Bayesian adaptive design for a Phase II study aimed at selecting the lowest effective dose for Phase III. In the first stage patients are randomized to placebo, maximal tolerated dose, and one or more additional doses within the dose range. Based on an interim analysis, the study is either stopped for futility or success, or enters the second stage, where newly recruited patients are allocated to placebo, maximal tolerated dose, and one additional dose chosen based on interim data. Assuming a monotone dose-response relationship, at interim, criteria based on the Predictive Probability of Success are used to decide on whether to stop or to continue the trial, and, in the latter case, which dose to select for the second stage. In addition, at interim, criteria based on the Predictive Probability of Success are used to decide on whether to stop or to continue the trial, and, in the latter case, which dose to select for the second stage. Finally a dose will be selected as lowest effective dose for Phase III either at the end of the first or at the end of the second stage.

Rahul Mazumder
Department of Statistics
Stanford University

Regularization methods for learning large incomplete matrices

Abstract

Abstract: In many real life applications, available data is in the form of a large matrix (say users and items or genes and patients, etc) with many entries missing. This is popularly dubbed as the matrix completion problem. The task is to come up with predictions for the missing entries under certain meaningful assumptions on the underlying population matrix. I will talk about models, efficient algorithms and applications for a certain class of matrix completion problems --- for example convex relaxations of low-rank models and variants accounting for robustness and data uncertainty. If time permits I will also talk about incorporating item-item similarities via graphical models within a generic matrix factorization frame-work.

This is joint work with my advisor Trevor Hastie (Stanford) , Robert Tibshirani (Stanford) and Deepak Agarwal (Yahoo Research !).

Directions and campus Map can be found at:

http://www20.csueastbay.edu/about/visitor-information/maps-campus-locations/hayward-campus-map/

The VBT building is closest to parking lots F and G. Parking is $2/hour ($10/day) and is enforced 24/7. Details about the parking is at the bottom of the campus map.

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