April 22, 2005

Colorado-Wyoming Chapter



SPRING MEETING - CO/ WY Chapter of the American Statistical Association
(Last updated April 15, 2005)

When: Friday, April 22nd 12:30 p.m.
Where: National Center for Atmospheric Research (NCAR) Mesa Lab
http://www.eo.ucar.edu/visit/

Okay - Final notice for the meeting. In addition to some material you have seen before, this note contains information on the following.

Vislab Tour Elections Sign-in Approximate Agenda and Abstracts Snow?

Vislab

For those of you signed up to tour the Vislab. We will be meeting at the main entrance to NCAR. At 11 a.m. we will walk down to the facility together. I have already signed everyone in this group in. If you arrive late, just check with the Security Desk.

Elections

At the meeting this year, several chapter positions need to be elected. These positions include President-elect, treasurer and chapter rep. If you wish be more involved with the chapter, please consider running for a position.

Sign in

At the security desk, there will be a sign in sheet for those attending the meeting. Please sign it. We will be meeting in the main meeting room. From the main entrance, the room is straight ahead, up the half flight of stairs and to your left.

Approximate Agenda

11 - 11:30 Vislab Tour 11:30 - 12:30 Lunch available in cafeteria 12:30 - 12:45 Sign-in / Registration 12:45 - 2:20 First Session 2:20 - 2:40 Coffee and Tea Break 2:40 - 4:30 Second Session 4:30 - Refreshments - Beer, wine, soda and snacks. (Yes, you read that correctly, free beer.)

Snow ?

In the increasingly unlikely chance there is snow next Friday, we will follow the following policy. If NCAR is open, the meeting will be on. If it is cancelled, I will send out an announcement Friday morning.

Questions? Contact Matt Pocernich at pocernic@ucar.edu

Invited Speakers

In addition to the student presentation, the following speakers have been invited to present some interesting research.

+ Shahar Boneh (Metro) "Estimating the prediction function and the number of unseen objects in sampling with replacement".

Following the model of the Coupon-Collector Problem, suppose we have N samples from an unknown number of distinct coupons. Based on this, we want to estimate how many coupons we have not sampled yet. Additionally, we want to estimate the 'prediction function', namely, the number of additional coupons that we expect to see if we take an addition K samples, for any value of k. We will also show a continuous-time extension to this model as well as applications.

+ Dorin Dringnei (NCAR - GSP) "Fitting Climate Models and Observed Climate Data."

Methods of design and analysis of computer experiments (DACE) will be implemented in a procedure for estimating three climate parameters. Observed and model surface temperature data will be used to find the best estimates of the equilibrium climate sensitivity, the net aerosol forcing and the ocean vertical thermal diffusivity, and to characterize their uncertainty.

+ Nels Grevstad - (Metro) "Estimating the Sample Size Parameter n in the Binomial Distribution."

The need to estimate the sample size parameter \$n\$ in the binomial distribution arises in many practical problems, such as estimating wildlife population sizes based on sample counts. Attempts to find reasonable estimators can be traced back to the early 1900s, when the method of moments estimator was proposed. But both the method of moments and maximum likelihood estimators suffer serious shortcomings in performance, including a highly unstable behavior.

This talk will detail some of the difficulties that arise when estimating \$n\$, present results of some attempts that have been made to overcome those difficulties, and discuss a new Bayesian method that uses a Jeffrey prior modified to handle integer parameters.

+ Scott Urquhart (CSU) "Statistics and the Clean Water Act".

The clean Water Act ov 1972 has lead to substantial improvement in the condition of our nations waters. Many relevant statistical issues were ignored during the first 25-30 years of the act's implantation. As that perspective changed in recent years, glaring deficiencies in statistical theory and applications, especially in the realm of complex surveys of ecological resources, have become apparent. Several EPA-funded activities have conducted research and implementations to overcome these limitations, including STARMAP at CSU.

Tour of NCAR's visualization lab

We are very happy to be back at NCAR's Mesa Lab. For those interested in arriving before lunch, one can attend a demonstration of NCAR's Data visualization Lab at 11 am. The data visualization lab allows for the 3-D projection of data. Yes, you get too wear dorky 3-D glasses. If you are interested attending this, please contact Matt Pocernich again by April 15th.

* Lunch -- While the meeting doesn't start until 12:30, those wishing to arrive a bit early can join us for lunch at 11:30. NCAR has a cafeteria with decent food and amazing views. A table will be reserved in the cafeteria for us to eat together.

Student Presentations

This year, there will be two categories for the student presentations as well as two prizes. The categories are based on whether or not a person is in a PhD program. Oral presentations will be between 10 - 15 minutes, based on the number of participants. The prize will be \$75 for each category.

Presentations will be judged equally in the following three

categories.

Content- content includes the significance, innovation, analysis and conclusion of the presentation.

Organization- this includes completeness, logic and layout.

Presentation- this includes the delivery, knowledge and visual aids.

Students wishing to compete in this competition should notify Matt Pocernich at pocernic@ucar.edu with a very brief description of the presentation before April 8th.

Maurice Davies Awards

Maurice Davies Awards will be presented to students from each school. This award, named after the first president of the CO/ WY Chapter of ASA, comes with a cash prize for those winners who attend the meeting to accept their awards.

Chapter Elections and Issues

As part of the spring meeting, annual elections are conducted. This year we are needing to elect a new president-elect, treasurer and chapter representative. If you are interested in getting more involved, now is your chance.

Additionally, the executive board has been working hard this year to reach out to members who seldom attend any events. We will be taking a few minutes at the meeting to solicit input as to how the chapter can be improved.

Thanks,

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