Stat 991: Contemporary Themes in Statistical Research
Spring 2015
Faculty organizer: L. Brown

Lecturers:
This semester there will be a three lecture mini-series, each given by a leading researcher. The lecturers will be

Yoav Benjamini,	Tel Aviv University
Cun-Hui Zhang,	Rutgers University
David Siegmund,	Stanford University

See below for the schedules = dates/times of the lectures.

The topics of their lectures are

Yoav Benjamini:

Selective Inference
"I follow the change from concern about simultaneous inference on multiple parameters to concern about the selection effect, in areas where the multiplicity is high: Genomics, Brain Imaging, and Medical Statistics. I shall review: (i) Basic principles for constructing simultaneous inference, (ii) The introduction of the false discovery rate, (iii) Variations on the false discovery rate. I shall emphasize (iv) selective inference, as a goal that merits its own terms and treatment, and I shall discuss open challenges regarding concepts and methods."

Cun-Hui Zhang:

High-dimensional linear regression
"I will cover both penalized LSE and confidence intervals for coefficients."

David Siegmund:

Change-point problems and applications in genomics
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Schedule of lectures + other information:

      Yoav Benjamini will lecture on Tues & Thurs at 10:30 – 12 from Feb 3 – 26. **FIRST LECTURE on Tues, Feb 3 in Room G-88 JMHH**. (We will not have a formal meeting before then, but I'll stop in to G-88 at 10:30 on Thurs, Jan 15 in case there are any questions. + You can reach me by phone (898-4753) or email (lbrown@wharton.upenn.edu).

      Cun-Hui Zhang will lecture the weeks of March 16 (following spring break) through April 10. The dates and times will be arranged at a later date to match his other obligations and to maximize convenience for those interested in attending his lectures.

David Siegmund will lecture from March 31 – April 16 (3 weeks), probably on Tues & Thurs from 10:30 – 12. (These days and times are subject to change.)

Note that some lectures by Cun-Hui and David will overlap. But students will have other weeks with no lectures in order to cancel out this busy period.

The lecturers will be in residence during much of the periods of their lectures (subject to other commitments).

Course Registration and auditing:

Student registrations are encouraged. Registered students should be committed to attending lectures physically and mentally, and following up in a reasonable fashion on any additional material posted as background by the lecturers.

(In answer to an occasionally asked question: "Stat 991" is an omnibus number used by the department for a variety of advanced special topics offerings. Students may register for more than one Stat 991 course in a semester – there will be two this spring – and for any number of such offerings during their period of residence.)

Auditors are also welcome.

There will be a canvas website for the course for posting of announcements and for the lecturers to post lecture notes or other materials if they desire.

Potential auditors should contact me at lbrown@wharton.upenn.edu to express interest in the lectures, and so I can permit access to the canvas website. Any other questions can also be addressed to me.

Subject to further notice (on the website) students and auditors should plan to **attend the first lecture** on Tues, Feb 3, at 10:30 in room G-88 JMHH.

L. Brown
1/5/15