

# Statistical Inference for Large Scale Data

April 20 to 24, 2015

Simon Fraser University, IRMACS Theatre

## Program: as of 20 April evening

The workshop is intended to be low intensity with lots of time for discussion. Speakers will have 60 minute slots and we don't intend to shut off discussion so we will be flexible about the timing of coffee breaks and lunches and so on. The event ends Friday at lunch and we have scheduled a free afternoon on Wednesday for speakers to have some time to get out in Vancouver. Richard hasn't organized any particular events, however.

**Organizing Committee:** Richard Lockhart, Simon Fraser University; and Nicolai Meinshausen, ETH, Zurich.

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**Last minute changes:** Illness has forced two cancellations: Ji Zhu and Aurelie Lozano on Tuesday afternoon and Wednesday morning. On Tuesday afternoon we have moved Venkat Chandrasekaran to 2 PM and then added a second presentation by Andreas Buja on visualization.

## Monday 20 April

**9:30 – 10:30** Jonathan Taylor, Stanford University  
*Selective inference in regression*

**10:30 – 11:00** Coffee

**11:00 – 12:00** Andreas Buja, The Wharton School, University of Pennsylvania  
*Moderate-p Post-Selection Inference*

**12:00 – 1:30** Lunch – not organized but there are a number of places to eat reasonably near IRMACS

**1:30 – 2:30** Rob Tibshirani, Stanford University  
*Two novel applications of selective inference*

**2:30 – 3:00** Coffee

**3:00 – 4:00** Hannes Leeb, University of Vienna  
*On conditional moments of high-dimensional random vectors given lower-dimensional projections*

## Tuesday 21 April

- 9:30 – 10:30** Bin Yu, University of California at Berkeley  
*Stability*
- 10:30 – 11:00** Coffee
- 11:00 – 12:00** Johannes Lederer, Cornell University  
*How to calibrate tuning parameters*
- 12:00 – 2:00** Lunch – not organized but there are a number of places to eat reasonably near IRMACS **NOTE: illness has force a cancellation of the 1:30 talk so we have moved Venkat's talk an hour earlier – to 2PM**
- 2:00 – 3:00** Venkat Chandrasekaran, California Institute of Technology  
*Latent-Variable Graphical Model Selection via Convex Optimization*
- 3:00 – 3:30** Coffee
- 3:30 – 4ish** Andreas Buja, The Wharton School, University of Pennsylvania  
*Large-p Visualization*

## Wednesday 22 April

**Note:** an unavoidable last minute cancellation has caused us to move Po-Ling Loh's talk half an hour earlier and give a longer afternoon off.

- 10:00 – 10:30** Coffee
- 10:30 – 11:30** Po-Ling Loh, Wharton School, U Penn  
*High-dimensional robust M-estimation*
- Afternoon** We plan to give everyone an afternoon free in Vancouver.

### Thursday 23 April

- 9:30 – 10:30** Jacob Bien, Cornell University  
*Convex Banding of the Covariance Matrix*
- 10:30 – 11:00** Coffee
- 11:00 – 12:00** Richard Samworth, University of Cambridge  
*Statistical and computational trade-offs in estimation of sparse principal components*
- 12:00 – 1:30** Lunch – not organized but there are a number of places to eat reasonably near IRMACS
- 1:30 – 2:30** Ming Yuan, University of Wisconsin  
*Distance Shrinkage and Euclidean Embedding via Regularized Kernel Estimation*
- 2:30 – 3:00** Coffee
- 3:00 – 4:00** Jason Lee, Stanford University  
*Selective Inference via the Condition on Selection Framework and Communication-efficient Sparse Regression*

### Friday 24 April

- 9:30 – 10:30** Noah Simon, University of Washington  
*Adjusting Point Estimates and Confidence Intervals for Selection Bias in High Dimensions as a Frequentist*
- 10:30 – 11:00** Coffee
- 11:00 – 12:00** Tong Zhang, Rutgers University  
*Some Recent Progress on Non-Convex Regularization Methods for Sparse Estimation*
- Afternoon** The conference ends at lunch. Whenever you choose to end a workshop or conference there are some who need to leave a little bit earlier! This is life.