



THE UNIVERSITY OF  
**CHICAGO**

Department of Statistics  
**DISSERTATION PROPOSAL**

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**Computation-Risk Tradeoffs in Statistical Estimation**

**THURSDAY, November 14, 2013, at 11:00 AM**

103 Eckhart Hall, 5734 S. University Avenue

**ABSTRACT**

I will discuss approaches to trading off statistical risk for speed of computation in both the parametric and nonparametric settings. For linear regression, hard-thresholding the sample covariance degrades the model but allows us to take advantage of recent progress on fast solvers for symmetric diagonally dominant systems. In the nonparametric setting, we show how locality sensitive hashing can be used to speed up kernel regression. I will also discuss possibilities for future work, focusing primarily on cluster tree estimation.

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For information about building access for persons with disabilities, please contact Matt Johnston at 773.702-0541 or send an email to [mhj@galton.uchicago.edu](mailto:mhj@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following web site: <https://lists.uchicago.edu/web/arc/statseminars>.