

RASMUS KYNG

NOVEMBER 22, 2016

CONTACT INFORMATION

Address: Yale Institute for Network Science
Department of Computer Science
Yale University
P.O. Box 208263
New Haven, CT 06520-8263
Phone: (203) 676-2122
Email: rasmus.kyng@yale.edu
Web site: <http://www.cs.yale.edu/homes/rjkyng/>

EDUCATION

2011–present PhD, Department of Computer Science, Yale University, U.S.A.
2008–2011 BA Hons Computer Science, University of Cambridge, United Kingdom
First Class Honours.
2005–2008 Risskov Gymnasium, upper secondary school, Denmark
Highest GPA in national exams.

PUBLICATIONS AND MANUSCRIPTS

Manuscript *Sampling Random Spanning Trees Faster than Matrix Multiplication*
with D. Durfee, J. Peebles, A.B. Rao, and S. Sachdeva.
SODA 2017 *A Framework for Analyzing Resparsification Algorithms*
with J. Pachocki, R. Peng, and S. Sachdeva.
FOCS 2016 *Approximate Gaussian Elimination for Laplacians: Fast, Sparse, and Simple*
with S. Sachdeva.
STOC 2016 *Sparsified Cholesky and Multigrid Solvers for Connection Laplacians*
with Y.T. Lee, R. Peng, S. Sachdeva, and D.A. Spielman.
NIPS 2015 *Fast, Provable Algorithms for Isotonic Regression in all ℓ_p -norms*
with S. Sachdeva and A. Rao.
COLT 2015 *Algorithms for Lipschitz Learning on Graphs*
with S. Sachdeva, D.A. Spielman, and A. Rao.
STOC 2014 *Solving SDD Linear Systems in Nearly $m \log^{1/2} n$ Time*
with M.B. Cohen, G.L. Miller, J.W. Pachocki, R. Peng, A. Rao, and S.C. Xu.

WORK EXPERIENCE

- Jun–Aug 2011 Research Assistant at Microsoft Research in Cambridge, UK
Employed through Brook Street. Worked for Senior Researchers Pushmeet Kohli and Jamie Shotton on tools for GPU-based 3D scene reconstruction using data from a moving Kinect device.
- Jan 2011 Research Assistant at Microsoft Research in Cambridge, UK
Employed through Brook Street. Worked for Senior Researchers Pushmeet Kohli and Jamie Shotton on Kinect data collection and labeling tools for gesture recognition.
- Summer 2010 Research Intern in Computational Geometry at the University of Utah
Supervised by Prof Suresh Venkatasubramanian. I worked on Johnson-Lindenstrauss-style dimensionality reduction from high- to low-dimensional simplices with Hellinger distance as the metric.

TEACHING EXPERIENCE

- Fall 2013 Yale Teaching Fellow for AMTH/CPSC 462/562: Graphs and Networks
3 hrs weekly office hours; grading homework assignments.
- Spring 2013 Yale Teaching Fellow for CPSC 469/569: Randomized Algorithms
3 hrs weekly office hours; grading homework assignments.
- Fall 2012 Yale Teaching Fellow for CPSC 201: Introduction to Computer Science
6 hrs weekly office hours and section; grading homeworks assignments and exams.

CODE

github.com/danspielman/Laplacians.jl

Work in progress. Developing fast Laplacian linear system solvers in Julia.

github.com/danspielman/YINSlex

Fast Matlab and Java code for computing Lex-minimizers in directed and undirected graphs. See the paper *Algorithms for Lipschitz Learning on Graphs* for experiments.

github.com/sachdevasushant/Isotonic

Fast Matlab code for computing Isotonic Regression. See the paper *Fast, Provable Algorithms for Isotonic Regression in all ℓ_p -norms* for experiments.