The University of Chicago
Department of Statistics

Seminar Series

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## ALLAN SLY
Theory Group
Microsoft Research

# The Reconstruction Problem on the Tree

**MONDAY, January 10, 2011, at 4:00 PM**
133 Eckhart Hall, 5734 S. University Avenue
*Refreshments following the seminar in Eckhart 110.*

# ABSTRACT

The reconstruction problem on the tree concerns the propagation of information in Markov processes on trees and has been studied in probability, statistical physics, computational biology, information theory and theoretical computer science. I will discuss progress in establishing thresholds for the reconstruction problem and give an overview of its applications to phylogenetic reconstruction, mixing times of Markov chains, random constraint satisfaction problems and the computational complexity of counting problems.

For further information and about building access for persons with disabilities, please contact Laura Rigazzi at 773.702.8333 or send email (lrigazzi@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following web site: https://lists.uchicago.edu/web/info/statseminars.