## **Departmental Colloquium**

Redistricting and a tale of two Markov chains

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**Abstract:** Random walks are a fundamental area of study in pure math, and they undergird the technique called Markov chain Monte Carlo (MCMC) that drives a huge range of statistical applications in science, engineering, and industry. I'll explain how MCMC found its way into the redistricting conversation, and I'll introduce a new Markov chain called "Recombination"—a graph partition chain designed for redistricting—and contrast that with the standard "Flip" chain. Along the way, I hope to explain some tradeoffs and debates in the use of math models in politics, policy, and law.

<br> There will be a Q&A session aimed at graduate students from 4:30 to 5:30 in 636 SEO.

Friday, October 11 at 3:00 PM in 636 SEO