

Stanford Math Department
de Leeuw Distinguished Lecture Series
Presents:



**Jonathan Mattingly
(Duke University)**

**Thursday, March 8, 2018
at 4:30 pm in Building 200-002**

Quantifying Gerrymandering: a mathematician goes to court

In October 2017, I found myself testifying for hours in a federal court. I had not been arrested. Rather, I was attempting to quantify gerrymandering using analysis which grew from asking whether a surprising 2012 election was indeed surprising. It hinged on probing the geopolitical structure of North Carolina using a Markov Chain Monte Carlo algorithm. I will start at the beginning and describe the mathematical ideas involved in our analysis. The talk will be accessible to undergraduates. In fact, this project began as a sequence of undergraduate research projects and undergraduates continue to be involved to this day.

