

# Department of Applied and Computational Mathematics and Statistics Colloquium



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University of Notre Dame

## *Causal Inference in Models with Discontinuities*

My research is in econometric theory and focuses on designing new methods for applied economists that work with individual-level data. In this talk, I'll present an overview of my research agenda and current projects. My research fits into two main areas: (1) models with discontinuities, that is, estimation in settings where a policy or treatment variable changes abruptly as a function of individual characteristics; and (2) resampling methods, that is, computational methods that reshuffle data to evaluate the magnitude of estimation error. I have also worked to a lesser extent on sample selection and spatial econometrics. Area (1) includes regression discontinuity designs, bunching designs, and matching theory. Area (2) includes bootstrap, permutation tests, and placebo randomization tests. Most of my work involves theoretical demonstrations on identification, estimation, and inference, in addition to illustrations using real-world and simulated data.

**Mon, Sept 18, 2023**

**3:45 – 4:45 PM**

**127 Hayes-Healy Center**

**Colloquium Tea – 3:15 PM in 101A Crowley Hall**