

**Stanford University**  
**Department of Statistics**

DEPARTMENTAL SEMINAR

4:30pm, Tuesday, February 18, 2020  
Sloan Mathematics Center Room 380C

Refreshments served at 4pm in Sequoia Lounge.

**Speaker:** Jelena Bradic, *UC San Diego*

**Title:** Causal learning: Excursions in double robustness

**Abstract:**

Recent progress in machine learning provides many potentially effective tools to learn estimates or make predictions from datasets of ever-increasing sizes. Can we trust such tools in clinical and highly-sensitive systems? If a learning algorithm predicts an effect of a new policy to be positive, what guarantees do we have concerning the accuracy of this prediction? The talk introduces new statistical ideas to ensure that the learned estimates satisfy some fundamental properties: especially causality and robustness. The talk will discuss potential connections and departures between causality and robustness.