

The Medical College of Wisconsin

Division of Biostatistics

Proudly Presents:

A Seminar Talk

By:



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Robust inference with the knockoff filter

The knockoff filter provides a tool for model selection by creating knockoff copies of each feature, testing the model selection algorithm for its ability to distinguish true from false covariates to control the false positives. In practice, the modeling assumptions that underlie the construction of the knockoffs may be violated, as we cannot know the exact dependence structure between the various features. Our ongoing work aims to determine and improve the robustness properties of the knockoff framework in this setting. We find that when knockoff features are constructed using estimated feature distributions whose errors are small in a KL divergence type measure, the knockoff filter provably controls the false discovery rate at only a slightly higher level. This work is joint with Emmanuel Candès and Richard Samworth.

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3:30 PM – 4:30 PM

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Light snacks provided