Title: Robust Bayesian Cognitive Modeling

Instructor: Jeffrey N. Rouder

Abstract:

One of the major trends of the decade has been a focus on replicability and robustness of empirical phenomena. And most recently, this focus has extended to data analysis and modeling—can conclusions drawn be robust to variation in analyses? Robustness in Bayesian analysis is especially topical as Bayesian analysts typically specify prior distributions above and beyond likelihood specification. While everyone agrees that practices of transparency are always beneficial, there are wide gulfs about how constrained models should be, what are reasonable specifications, and the role of boundary conditions. By focusing on Bayesian model specification, we will explore the critical tensions that center on how much of modeling can be exploratory, what are the degrees of freedom a modeler has, to what extent are modeling results allowed to reflect the subjective choice of prior settings, and whether there is a fine art of "listening" to data.

Assignment: TBA

Credits: 1 workshop day