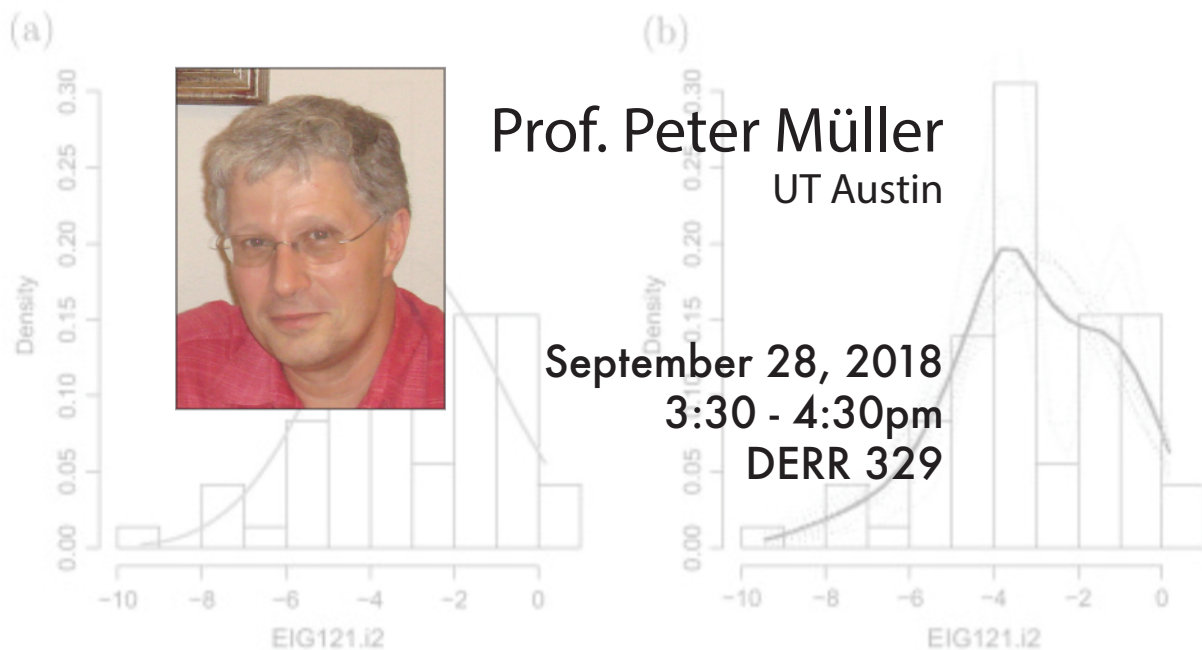


Department of Mathematics Colloquium

Nonparametric Bayesian data analysis



We review inference under models with nonparametric Bayesian (BNP) priors. The discussion follows a set of examples for some common inference problems. The examples are chosen to highlight problems that are challenging for standard parametric inference. We discuss inference for density estimation, clustering, regression and for mixed effects models with random effects distributions. While we focus on arguing for the need for the flexibility of BNP models, we also review some of the more commonly used BNP models, thus hopefully answering a bit of both questions, why and how to use BNP.