Why does the Gibbs sampler work on hierarchical models?

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ABSTRACT

Gibbs sampling and related MCMC have been incredibly successful in Bayesian statistics during the last 20 years. However, a theoretical understanding of exactly why the methods work so well on important classes such as hierarchical models still eludes us. This talk will shed some light on the problem by describing (mainly) qualitative convergence results for Gibbs samplers on hierarchical models.

Part of this is joint work with Krys Latuszyinski, Omiros Papaspiliopoulos and Natesh Pillai.