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DEPARTMENT OF STATISTICS AND BIostatISTICS
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Seminar

Speaker: **Professor Todd Kuffner**
Department of Mathematics
Washington University in St. Louis

Title: **Conditional probability matching priors**

Time: **3:20 – 4:20pm, Wednesday, September 23, 2015**

Place: **552 Hill Center**

Abstract

Conditional probability matching priors are Bayesian priors delivering posterior credible sets with the correct conditional frequentist probability interpretation to error of second order or better. We focus on ancillary statistic models. Tools from higher-order asymptotics facilitating the identification of such priors are discussed. We present a number of third-order and exact results. The roles of nuisance parameters and orthogonality are elucidated, and comparisons made with the existing literature on matching priors. Simulations are presented which study the conditional frequentist properties of credible sets derived from such matching priors in several ancillary statistic models of practical interest.

**** Refreshments will be served @2:50pm in Room 502 Hill Center ***