

SEMINÁRIOS
SÉRIES TEMPORAIS, ONDALETAS E DADOS
FUNCIONAIS

LOCAL: **IME, USP, Sala 249 Bloco A**

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HORÁRIO: **15h30**

PARSIMONY INDUCING PRIORS FOR LARGE SCALE STATE-SPACE MODELS
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State-space models are commonly used in the engineering, economic, and statistical literatures. They are flexible and encompass many well-known statistical models, including random coefficient autoregressive models and dynamic factor models. Bayesian analysis of state-space models has attracted much interest in recent years, however, for large scale models, prior specification becomes a challenging issue in Bayesian inference. In this talk we propose a flexible prior for state-space models which is a mixture of four commonly entertained models, yet achieves parsimony in high-dimensional systems. Here "parsimony" is represented by the idea that in a large system, some states may not be time-varying. Simulation and simple examples are used throughout to demonstrate the performance of the proposed prior.

(Joint work with Robert E. McCulloch and Ruey S. Tsay)