Special Topics - Markov Chains
STA 7934
Fall 2018

Instructor:

J.P. Hobert
204 Griffin Floyd Hall

Class: Tuesday 1:55-3:50pm and Thursday 1:55-2:45pm in Griffin Floyd Hall 230

Office Hours: Thursday 2:45-3:45pm and Friday 2:00-3:00pm, or by appointment

Plan:

I will start with a rigorous treatment of countable state space Markov chain theory. The first lectures will be based on Section 8 of Billingsley (1995), and the classical paper on computable bounds by Diaconis and Stroock (1991).

Grading:

The grade will be based on two in-class exams.

Starting references:

Billingsley, P. (1995). *Probability and Measure*, 3rd ed. John Wiley & Sons, New York.

Pitman, J. W. (1974). Uniform rates of convergence for Markov chain transition probabilities, *Zeitschrift für Wahrscheinlichkeitstheorie und Verwandte Gebiete* **29**: 193–227.

Diaconis, P. and Stroock, D. (1991). Geometric bounds for eigenvalues of Markov chains, *Annals of Applied Probability* **1**: 36–61.