

Seminar: 3/18/2024

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Title: Markov Chain Convergence: CSU's role in the 1990s

Abstract: This talk presents an expository view of Markov chain convergence rates, including a historical account of happenings at CSU Statistics in the 1980s and 1990s. Applied probability research was a common statistical topic in this era, much of it bolstering CSU's name at the time. CSU researchers such as Tweedie, Resnick, Brockwell, and Davis were leading the charge.

This talk rehashes the Markov chain convergence rate problem on general state spaces. Difficulties of the general chain convergence problem are first illuminated. Thereafter, splitting techniques, drift and minorization methods, and coupling strategies are discussed. A historical account of some of the convergence rates produced is given, with an emphasis on happenings at CSU. The talk concludes with some new developments for chains having a so-called shadowing-property.