1010-60-3 **Prasad V. Tetali***, Georgia Institute of Technology. *Markov chain mixing: An update.*

The mixing time of an ergodic Markov chain quantifies the rate of convergence to stationarity of the chain. Due to its theoretical and practical importance, various techniques have been developed, by researchers in probability, computer science and combinatorics, to bound mixing times. The speaker will describe recent research in this topic, focusing on analytical estimates on bounding the mixing time. Besides illustration with examples, some applications and open problems involving card-shuffles will also be outlined. (Received November 29, 2004)