Privacy of Markov Processes

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In this talk we shall discuss differential privacy, a framework for quantifying the extent to which a random output depends on the information used to generate it. After introducing several related definition of differential privacy, we shall discuss techniques used to show the differential privacy of both trajectories and single draws from Markov chains. In doing so we shall touch on perturbation techniques which allow for Wasserstein type bounds to be converted into stronger distances like KL and Renyi divergence.

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