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Title: Bounding Mixing Time for Glauber Dynamics

Abstract: Exponential random graph models are important models in the study of modern networks. These models are able to simulate common network tendencies through local graph features. We study the efficiency of single site Glauber dynamics for vertex weighted exponential random graphs. In particular, we study the lower bound on the mixing time for the Glauber dynamics in a specific region of the parameter space, the high temperature phase. We show using a coupon collecting argument and spectral methods that the mixing time in the high temperature phase is $\Omega(n \log n)$.