

Estimating Network Parameters

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Estimating the parameters of a large network, which cannot be accessed in its entirety, is a basic statistical question. In this talk we address two questions in this context. First is that of estimating the average degree of a network; we show a simple non-uniform sampling algorithm that can do this using a small number of samples, which is better than the most obvious estimator for this problem. Second is the question of estimating the fraction of nodes with a certain property; here, we show that an easy estimator can be improved upon by using information about the neighborhood of a node.