Mathematical Computer Science Seminar

Sampling bipartite degree sequences - the Markov chain approach

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Abstract: How to analyze real life networks? There are myriads of them and usually experiments cannot be performed directly. Instead, scientists define models, fix parameters and imagine the dynamics of evolution.

Then, they build synthetic networks on this basis (one, several, all) and they want to sample them. However, there are far too many such networks. Therefore, typically, some probabilistic method is used for sampling.

We will survey one such approach, the Markov Chain Monte Carlo method, to sample realizations of given degree sequences. Some new results will be discussed.

Monday, October 8 at 3:00 PM in 427 SEO