

Mixing time of the switch chain on regular bipartite graphs

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Given a fixed integer d , we consider the switch chain on the set of d -regular bipartite graphs on n vertices equipped with the uniform measure. We establish a sharp estimate of the mixing time of the switch chain by showing that it is of order $O(n \log n)$. This improves on earlier results of Kannan, Tetali, Vempala and Dyer et al. who obtained the bounds $O(n^{13} \log n)$ and $O(n^7 \log n)$ respectively. This is a joint work with Konstantin Tikhomirov.