1127-05-360 **Deepak Bal*** (`deepak.bal@montclair.edu`), 1 Normal Ave., Montclair, NJ 07043, and **Patrick Bennett**. *Improved analysis of the Karp-Sipser algorithm on random graphs with a prescribed degree sequence.*

We analyze the performance of the Karp-Sipser matching algorithm on a graph chosen uniformly at random from the set of graphs having a prescribed degree sequence. We extend and improve a result of Bohman and Frieze, who showed that with high probability the algorithm outputs an almost perfect matching (i.e. a matching that saturates $n - o(n)$ vertices) when the degree sequence is log-concave. In particular, we improve the $o(n)$ term and prove that a more general condition on the degree sequence guarantees that the algorithm outputs an almost perfect matching with high probability. Our result applies to degree sequences that are 'very far' from being log-concave. (Received February 07, 2017)