1145-VP-3009   **Peng Zhao***, Indiana State University, Terre Haute, IN 04807, and **Cheng Zhao**
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University, Terre Haute, IN 04807. *Optimal cluster detection of a certain directed edge-weighted
bipartite graph.* Preliminary report.

We study the cluster detection of a certain edge-weighted bipartite graph. Using Markov matrix and random walks, we
obtain the optimal clustering in polynomial time. (Received September 26, 2018)