

AVOIDANCE COUPLING

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Given a Markov chain, when is it possible to construct two or more copies of the chain such that they never coincide? For random walks on the complete graph we show that it is possible to couple roughly $n^{\log 2 / \log 5}$ walkers for all n , and $n^{1/2}$ for some n .

Joint with Alexander E. Holroyd, James Martin, David B. Wilson and Peter Winkler.