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Peter T. Otto* (potto@willamette.edu), Salem, OR 97301. *The aggregate path coupling method for mixing times of Markov chains.*

The classical path coupling method to bound the mixing times of Markov chains is a powerful probabilistic tool that reduces the problem to bounding the mean coupling distance between all pairs of neighboring configurations. Aggregate path coupling is an extension of the path coupling method that applies large deviation bounds and aggregation of the mean coupling distance in order to make bounding only certain pairs of neighboring configurations sufficient to bound the mixing time of the Markov chain. (Received September 17, 2015)