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Christopher M van Bommel* (cvanbomm@uwaterloo.ca). *Pretty Good State Transfer on Paths.*

We consider pretty good state transfer on a uniformly coupled chain of n particles with XY Hamiltonian, or equivalently, on an unweighted path of n vertices with respect to the adjacency matrix. It was previously observed that if pretty good state transfer occurs between the end vertices of a path, then it occurs between pairs of internal vertices if the two vertices are equidistant from the centre. However, it was not known if pretty good state transfer could occur between internal vertices without occurring between the end vertices. We determine an infinite family of paths where this occurs, and show it is the only such family, completely characterizing pretty good state transfer on paths. Includes joint work with Gabriel Coutinho and Krystal Guo. (Received February 19, 2018)