Ross Churchley, Bojan Mohar and Hehui Wu* (hhwu@olemiss.edu). Packing of edge-disjoint odd $(u,v)$-trails.

For a graph $G$ and vertices $u, v \in V(G)$, let $\nu_{od}(u,v)$ be the maximum number of edge-disjoint $(u,v)$-trails of odd length, and let $\tau_{od}(u,v)$ be the minimum number of edges that intersect every odd $(u,v)$-trail in $G$. It is proved that $\nu_{od}(u,v) \leq \tau_{od}(u,v) \leq 8\nu_{od}(u,v)$. The proof leads to a polynomial-time algorithm to find, for any given $k$, either $k$ edge-disjoint odd $(u,v)$-trails or a set of fewer than $8k$ edges intersecting all odd $(u,v)$-trails. (Received August 11, 2015)