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Tao Jiang* (jiangt@muohio.edu), Dept. of Mathematics, Miami University, Oxford, OH 45056,
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Oxford, OH 45056. *Turan numbers of subdivided graphs.*

Given a positive integer n and a graph F , the Turán number $ex(n, F)$ is the maximum number of edges in an n -vertex graph that does not contain F as a subgraph. We prove a rather general result concerning Turán numbers.

Let F be a graph that is obtained from another graph H by subdividing its edges. For each $xy \in E(H)$, let $l_{x,y}$ be the length of the unique x, y -path in F that is internally disjoint from $V(H)$. Suppose that $l_{x,y}$ is even for all $xy \in E(H)$ and that $\min\{l_{x,y} : xy \in E(H)\} = 2m$. We show that $ex(n, F) = O(n^{1+\frac{8}{m}})$. This strengthens a recent result by Jiang and an old result by Kostochka and Pyber. (Received September 13, 2010)