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**Emily Marshall\*** (marshalle@arcadia.edu) and **Michael Santana**. *Finding disjoint theta graphs*. Preliminary report.

For a graph  $G$  on exactly  $4k$  vertices, Kawarabayashi proved that if  $\delta(G) \geq \frac{5}{2}k$ , then  $G$  contains  $k$  vertex-disjoint theta graphs. We extend this result and show that every graph  $G$  on at least  $4k$  vertices with  $\delta(G) \geq \frac{5}{2}k$  contains  $k$  vertex-disjoint theta graphs; this result is best possible when  $4k \leq n < 5k$ . For graphs on a large number of vertices, however, Chiba et al. proved that if  $\delta(G) \geq 2k$ , then  $G$  contains  $k$  vertex-disjoint theta graphs. We discuss when this minimum degree threshold might transition from  $\frac{5}{2}k$  to  $2k$ . This work is joint with Michael Santana. (Received September 17, 2018)