1116-05-1099   **J. Han**, **C. Zang*** (`czang1@gsu.edu`) and **Y. Zhao**. *Minimum vertex degree thresholds for tiling complete 3-partite 3-uniform hypergraphs.*

Given two r-uniform hypergraphs (in which every edge consists of r vertices) F and H, an F-factor of H is a collection of vertex-disjoint copies of F that covers all vertices of H. The (hyper)graph tiling/packing problems study under which conditions an F-factor exists. The obvious necessary condition is $v(F)|v(H)$, where $v(H)$ denotes the order of H. The $r = 2$ case (i.e., graph tiling) has been intensively studied for decades, e.g., Edmonds shows that there is a polynomial time algorithm finding the maximum matching (where F is an edge), and Kühn and Osthus determines the minimum degree threshold for F-tiling for arbitrary graph F. In contrast, much less is known for hypergraphs. In this talk I will present the minimum vertex degree threshold for K-tiling in 3-uniform hypergraphs, where K is any complete 3-partite 3-uniform hypergraph. This is a joint work with Jie Han and Yi Zhao. (Received September 16, 2015)