Almost perfect matchings in k-partite k-graphs

Yan Wang (Georgia Tech)

The minimum co-degree threshold for a perfect matching in a k-graph with n vertices was determined by Rödl, Ruciński and Szemerédi for the case when $n \equiv 0 \pmod{k}$. Recently, Han resolved the remaining cases, establishing a conjecture of Rödl, Ruciński and Szemerédi. In this paper, we determine the minimum co-degree threshold for almost perfect matchings in k-partite k-graphs, answering a question of Rödl and Ruciński.