1117-05-157 Jie Han (jhan@ime.usp.br) and Yi Zhao* (yzhao6@gsu.edu). Forbidding Hamilton cycles in uniform hypergraphs.

For $1 \le d \le \ell < k$, we give a new lower bound for the minimum *d*-degree threshold that guarantees a Hamilton ℓ -cycle in *k*-uniform hypergraphs. When $k \ge 4$ and $d < \ell = k - 1$, this bound is larger than the conjectured minimum *d*-degree threshold for perfect matchings and thus disproves a well-known conjecture of Rödl and Ruciński. Our (simple) construction generalizes a construction of Katona and Kierstead and the so-called space barrier for Hamilton cycles. (Received January 12, 2016)