1073-05-214 **Andrew Treglown** and **Yi Zhao*** (yzhao6@gsu.edu), Department of Mathematics and Statistics, Georgia State University, Atlanta, GA 30338. *Perfect matchings in uniform hypergraphs.*

Given positive integers k and ℓ where 4 divides k and $k/2 \leq \ell \leq k-2$, we determine the minimum ℓ-degree threshold that ensures a perfect matching in a k-uniform hypergraph. This improves on work of Pikhurko who determined this threshold asymptotically. Our approach makes use of the Hypergraph Removal Lemma as well as a structural result of Keevash and Sudakov relating to the Turán number of expanded triangles. (Received August 01, 2011)