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Jeff Cooper* (jcoope8@uic.edu) and **Dhruv Mubayi** (mubayi@math.uic.edu). *Coloring triangle-free triple systems.*

A hypergraph is linear if any two edges share at most one vertex. Frieze and Mubayi showed that if a 3-uniform hypergraph is linear and triangle-free, then it can be properly colored with $O(\sqrt{\Delta}/\sqrt{\log \Delta})$ colors, where Δ is the maximum degree of the hypergraph. They later removed the triangle-free assumption, showing that the same bound holds for linear 3-uniform hypergraphs. Our work loosens the linear assumption. We show that any triangle-free 3-uniform hypergraph can be properly colored with $O(\sqrt{\Delta}/\sqrt{\log \Delta})$ colors. (Received September 03, 2012)