1119-05-248 **Tom Bohman**, **Dhruv Mubayi** and **Mike Picollelli*** (mpicollelli@csusm.edu), Department of Mathematics, California State University San Marcos, 333 S. Twin Oaks Valley Rd, San Marcos, CA 92096. *The independent neighborhoods process.*

A triangle $T^{(r)}$ in an r-uniform hypergraph is a set of $r+1$ edges such that r of them share a common $(r-1)$-set of vertices and the last edge contains the remaining vertex from each of the first r edges. Our main result is that the random greedy triangle-free process on n vertices terminates in an r-uniform hypergraph with independence number $O((n\log n)^{1/r})$. As a consequence, the hypergraph Ramsey number $r(T^{(r)}, K_s^{(r)})$ has order of magnitude $s^r/\log s$. This answers questions posed by Bohman, Frieze, and Mubayi, and by Kostochka, Verstraëte, and Mubayi, and generalizes the celebrated results of Ajtai-Komlós-Szemerédi and Kim to hypergraphs.

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