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*Independence densities of hypergraphs.*

The independence density of a finite hypergraph is the probability that a subset of vertices, chosen uniformly at random contains no hyperedges. Independence densities can be generalized to countable hypergraphs using limits. We show that, in fact, every positive independence density of a countably infinite hypergraph with hyperedges of bounded size is equal to the independence density of some finite hypergraph whose hyperedges are no larger than those in the infinite hypergraph. This answers a question of Bonato, Brown, Kemkes, and Prałat about independence densities of graphs. Furthermore, we show that for any  $k$ , the set of independence densities of hypergraphs with hyperedges of size at most  $k$  is closed and contains no infinite increasing sequences. (Received September 11, 2016)