

1124-05-351

Jozsef Balogh, Andrew McDowell, Theodore Molla* (molla@illinois.edu) and **Richard Mycroft**. *Triangle-tilings in graphs without large independent sets.*

We study the minimum degree necessary to guarantee the existence of perfect and almost-perfect triangle-tilings in an n -vertex graph G with sublinear independence number. In this setting, we show that if $\delta(G) \geq n/3 + o(n)$ then G has a triangle-tiling covering all but at most four vertices. Also, for every $r \geq 5$, we asymptotically determine the minimum degree threshold for a perfect triangle-tiling under the additional assumptions that G is K_r -free and n is divisible by 3. (Received September 13, 2016)