Kühn, Daniela; Osthus, Deryk; Taraz, Anusch

Large planar subgraphs in dense graphs. (English) Zbl 1075.05045

Summary: We prove sufficient and essentially necessary conditions in terms of the minimum degree for a graph to contain planar subgraphs with many edges. For example, for all positive $\gamma$ every sufficiently large graph $G$ with minimum degree at least $(2/3 + \gamma)|G|$ contains a triangulation as a spanning subgraph, whereas this need not be the case when the minimum degree is less than $2|G|/3$.

MSC: 05C35 Extremal problems in graph theory

Keywords: Extremal graph theory; Regularity lemma

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References:

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