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On planar and non-planar graphs having no chromatic zeros in the interval(1,2). (English)

Zbl 1148.05025

Discrete Math. 308, No. 17, 3897-3905 (2008).

A chromatic zero of a graph G is a zero of the chromatic polynomial of G . A near-triangulation is a loopless connected plane graph having at most one non-triangular face. The authors describe a family of 2-connected graphs closed under certain operations and having no chromatic zeros in $(1, 2)$. The family contains collections of graphs avoiding certain minors and also collections of plane graphs, including near-triangulation found by *G. Birkhoff* and *D. G. Lewis* [Trans. Am. Math. Soc. 60, 355–451 (1946; Zbl 0060.41601)].

Reviewer: [Arthur T. White \(Kalamazoo\)](#)

MSC:

05C10 Planar graphs; geometric and topological aspects of graph theory

05C15 Coloring of graphs and hypergraphs

Keywords:

near-triangulation; plane graph; chromatic polynomial; chromatic zero; minor

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