

MAXIMIZING SPECTRAL RADII OF UNIFORM HYPERGRAPHS WITH FEW EDGES

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Abstract

In this paper we investigate the hypergraphs whose spectral radii attain the maximum among all uniform hypergraphs with given number of edges. In particular we characterize the hypergraph(s) with maximum spectral radius over all unicyclic hypergraphs, linear or power unicyclic hypergraphs with given girth, linear or power bicyclic hypergraphs, respectively.

Keywords: tensor, spectral radius, unicyclic hypergraph, bicyclic hypergraph, girth.

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