

**Johnson, P. D. jun.; Mohapatra, R. N.**

**A class of inequalities relating degrees of adjacent nodes to the average degree in edge-weighted uniform hypergraphs.** (English) [Zbl 1085.05046](#)

[Int. J. Math. Math. Sci.](#) 2005, No. 21, 3419-3426 (2005).

Summary: In 1986, *P. D. Johnson jun.* and *R. L. Perry* [*Eur. J. Comb.* 7, 237–241 (1986; [Zbl 0624.05048](#))] proved a class of inequalities for uniform hypergraphs which included the following: for any such hypergraph, the geometric mean over the hyperedges of the geometric means of the degrees of the nodes on the hyperedge is no less than the average degree in the hypergraph, with equality only if the hypergraph is regular. Here, we prove a wider class of inequalities in a wider context, that of edge-weighted uniform hypergraphs.

**MSC:**

[05C65](#) Hypergraphs

Cited in **1** Document

**Full Text:** [DOI](#) [EuDML](#)