

Line graph spread

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Abstract

In [1], the upper and lower bounds for the spread $\lambda_1 - \lambda_n$ of the eigenvalues $\lambda_1 \geq \lambda_2 \geq \dots \geq \lambda_n$ of the adjacency matrix of a simple graph are presented. Here we are concerned to obtain upper and lower bounds for the spread of the adjacency of a graph which is the line graph of a simple graph.

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- [1] D. A. Gregory, D. Heshkowitz and S. J. Kirkland, The spread of the spectrum of a graph, *Linear Algebra Appl.*, 332-334 (2001) 23-35.
- [2] D. M. Cardoso, H. Gomes, R. Lemos, E. A. Martins and M. Robbiano, On the spread of the line graph and applications, manuscript.