

## THE DISTANCE SPECTRAL RADIUS OF GRAPHS WITH GIVEN NUMBER OF ODD VERTICES\*

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**Abstract.** The graphs with smallest, respectively largest, distance spectral radius among the connected graphs, respectively trees with a given number of odd vertices, are determined. Also, the graphs with the largest distance spectral radius among the trees with a given number of vertices of degree 3, respectively given number of vertices of degree at least 3, are determined. Finally, the graphs with the second and third largest distance spectral radius among the trees with all odd vertices are determined.

**Key words.** Distance spectral radius, Distance matrix, Distance Perron vector, Odd vertex, Maximum degree, Graph, Tree.

**AMS subject classifications.** 05C50, 15A18.

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\*Received by the editors on January 19, 2015. Accepted for publication on April 7, 2016. Handling Editor: Bryan L. Shader.

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