A NOTE ON THE LEAST EIGENVALUE OF A GRAPH
WITH GIVEN MAXIMUM DEGREE*

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Abstract. This note investigates the least eigenvalues of connected graphs with \( n \) vertices and maximum degree \( \Delta \), and characterizes the unique graph whose least eigenvalue achieves the minimum among all the connected graphs with \( n \) vertices and maximum vertex degree \( \Delta > \frac{n}{2} \).

Key words. Maximum vertex degree, Least eigenvalue, Spectral radius.

AMS subject classifications. 05C50, 15A18.

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