

## ERRATUM TO ‘A NOTE ON THE LARGEST EIGENVALUE OF NON-REGULAR GRAPHS’ \*

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**Abstract.** Let  $\lambda_1(G)$  be the largest eigenvalue of the adjacency matrix of graph  $G$  with  $n$  vertices and maximum degree  $\Delta$ . Recently,  $\Delta - \lambda_1(G) > \frac{\Delta+1}{n(3n+\Delta-8)}$  for a non-regular connected graph  $G$  was obtained in [B.L. Liu and G. Li, A note on the largest eigenvalue of non-regular graphs, *Electron J. Linear Algebra*, 17:54–61, 2008]. But unfortunately, a mistake was found in the cited preprint [T. Büyükoğlu and J. Leydold, Largest eigenvalues of degree sequences], which led to an incorrect proof of the main result of [B.L. Liu and G. Li]. This paper presents a correct proof of the main result in [B.L. Liu and G. Li], which avoids the incorrect theorem in [T. Büyükoğlu and J. Leydold].

**Key words.** Spectral radius, Non-regular graph,  $\lambda_1$ -extremal graph, Perron vector.

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