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Bolian Liu and **Jian Shen*** (js48@txstate.edu), Department of Mathematics, Texas State University, San Marcos, TX 78666, and **Xinmao Wang**. *On the Largest Eigenvalue of Non-regular Graphs.*

We study the spectral radius of connected non-regular graphs. Let $\lambda_1(n, \Delta)$ be the maximum spectral radius among all connected non-regular graphs with n vertices and maximum degree Δ . We prove that $\Delta - \lambda_1(n, \Delta) = \Theta(\Delta/n^2)$. This improves two recent results by Stevanovic and Zhang, respectively. (Received January 22, 2007)