1033-05-230 **Bolian Liu**, Department of mathematics, South China Normal University, Guangzhou, Peoples Rep of China, **Jian Shen*** (js48@txstate.edu), Department of Mathematics, Texas State University, San Marcos, TX 78666, and **Xinmao Wang**, Department of Mathematics, University of Science and Technology of China, Hefei, Peoples Rep of China. *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 $\Delta$. We prove that $\Delta - \lambda_1(n, \Delta) = \Theta(\Delta/n^2)$. This improves two recent results by Stevanović and Zhang, respectively. (Received September 11, 2007)