Electronic Journal of Linear Algebra ISSN 1081-3810 A publication of the International Linear Algebra Society Volume 22, pp. 267-276, March 2011



THE *P*-LAPLACIAN SPECTRAL RADIUS OF WEIGHTED TREES WITH A DEGREE SEQUENCE AND A WEIGHT SET*

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Abstract. In this paper, some properties of the discrete *p*-Laplacian spectral radius of weighted trees have been investigated. These results are used to characterize all extremal weighted trees with the largest *p*-Laplacian spectral radius among all weighted trees with a given degree sequence and a positive weight set. Moreover, a majorization theorem with two tree degree sequences is presented.

Key words. Weighted tree, Discrete *p*-Laplacian, Degree sequence, Spectrum.

AMS subject classifications. 05C50, 05C05, 05C22.

^{*}Received by the editors on September 1, 2010. Accepted for publication on February 27, 2011. Handling Editor: Michael Neumann.

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