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Lixin Shen* (lshen03@syr.edu), Department of Mathematics, Syracuse University, Syracuse, NY 13244. *Eigengaps of Hub and Hub-dominant Matrices.*

The notion of hub matrices was first proposed by Kung and Suter. Many communications and network systems can be represented by hub matrices. The properties of the systems are characterized by the leading eigenvalues of the Gram matrices of the hub matrices. In this talk, we will give an accuracy estimation of those eigenvalues in terms of the entries of the underlying hub matrices. (Received August 22, 2009)