1135-15-2476 **Guangming Jing*** (gjing1@gsu.edu), 2697 Shetland Ln, Duluth, GA 30096, and **Zhongshan Li**, **Yubin Gao**, **Yanling Shao** and **Wei Fang**. *The index set of scrambling indices.*

Recall a nonnegative square matrix A is called primitive if there exist a positive integer k such that $A^k > 0$. Let A be a primitive matrix and D be its corresponding digraph. The scrambling index of A is the smallest positive integer k such that for every pair of vertices u and v, there exists a vertex w such that $u \xrightarrow{k} w$ and $v \xrightarrow{k} w$ in D. In this talk we will present our result on the index set of the scrambling index for all primitive matrices. (Received September 26, 2017)