1067-15-553   **Charles D. Wessell***, Mathematics Department, Box 8205, North Carolina State University, Raleigh, NC 27695-8205, and **Carl D. Meyer**, Mathematics Department, Box 8205, North Carolina State University, Raleigh, NC 27695-8205. *Applying Simon-Ando Theory to Data Clustering.*

Given a nearly completely decomposable matrix A, Herbert Simon and Albert Ando described the stages that A^t passes through as t increases. If we wish to cluster the elements of a n-element data set and S is an $n \times n$ symmetric matrix whose entries measure the similarity between elements of the data set, S can be converted into a doubly stochastic matrix A and Simon-Ando theory can aid us in clustering the data set. Development of the algorithm and results will be presented. (Received September 09, 2010)

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