1135-15-993 **Akram Aldroubi** and **Keaton Hamm***, keaton.hamm@vanderbilt.edu, and **Ahmet Bugra Koku** and **Ali Sekmen**. *CUR Matrix Decomposition and Subspace Clustering.*

The subspace clustering problem seeks to classify, or cluster, data in a high-dimensional space that is drawn from the union of much smaller dimensional subspaces. For example, images of a single face under different illuminations can be well-modeled to lie in a small linear subspace of the ambient space. One method of attack for this problem is to find a similarity matrix from the data which identifies the clusters. This talk will discuss an intriguing matrix decomposition method called CUR decomposition, and describe how some of the known similarity matrix methods are special cases of this general decomposition in the case that the subspaces are independent. (Received September 18, 2017)