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Rundong Du* (rdu@gatech.edu), Atlanta, GA , and **Haesun Park** (hpark@cc.gatech.edu), Atlanta, GA. *Hybrid Clustering of Data with Contents and Links based on Nonnegative Matrix Factorization.*

Nonnegative matrix factorization (NMF) has been successfully applied to text and graph clustering. In reality, some data sets have both text contents and graph structure, such as papers with citations and online articles with hyperlinks. By jointly optimizing the objectives of NMF for text and graph clustering, we achieve better clustering results than clustering merely based on the text or on the graph. We propose an effective algorithm for the joint objective based on the block coordinate descend (BCD) method. Substantial experimental results show improvements of clustering quality and the potential application to citation recommendations of papers and patents. (Received September 18, 2016)