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Peter J. Mucha* (mucha@unc.edu). *Communities in Multilayer Networks*.

A prominent problem in the application of networks to various disciplines is the algorithmic detection of tightly connected groups of nodes known as communities. Recently, there has been increased interest in networks with multiple types of relationships, that change in time, or that network together multiple kinds of networks. It is important to handle such “multilayer” features appropriately in identifying communities in these networks. We consider the state of community detection in multilayer networks and demonstrate its application with examples from real-world data. (Received September 16, 2014)