1128-68-120   **Jevin D West*** (`jevinw@uw.edu`), University of Washington, Information School, Box 352840, Seattle, WA 98195, and **Jason Portenoy**. *An information theoretic approach for hierarchically clustering large acyclic graphs.* Preliminary report.

Many real-world networks are acyclic and far from ergodic. Time directed networks are a common example. A random walker released on this kind of network will walk inexorably backwards in time. These kinds of networks pose challenges to many flow-based clustering algorithms. This talk will examine nuances and modifications of the hierarchical mapequation for addressing these challenges. This will include a discussion on scaling the algorithm to citation networks with hundreds of millions of nodes and billions of links. (Received February 20, 2017)