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Jennifer B Webster* (jenny.webster@pnnl.gov), 902 Battelle Boulevard, PO Box 999, MSIN K7-20, Richland, WA 99352, and **Stephen J Young** and **Patrick Mackey**. *Uncertainty in Community Detection*. Preliminary report.

Typical community detection algorithms designed by the mathematics and computer science communities either (A) assume perfect knowledge of the underlying graph or (B) are tuned to a particular dataset(s). When generalizing to other real-world data sets, we rarely have the choice of data or complete data sets. In this talk, we will discuss how incomplete knowledge of the underlying graph impacts the communities determined using modularity and present a set of metrics for describing differences among communities. PNNL Release Number: PNNL-SA-124237 (Received February 27, 2017)