1135-68-1633 **Marinka Zitnik*** (marinka@cs.stanford.edu), **Rok Sosic** and **Jure Leskovec**. *Prioritizing network communities.*

Uncovering modular structure in complex networks is fundamental for advancing the understanding of complex systems in biology, physics, engineering, and social sciences. Community detection provides a way to computationally identify candidate modules, which then need to be experimentally validated. However, validation of detected communities requires expensive and time consuming experimental methods, such as mutagenesis in a wet biological laboratory or surveying in sociology. As a consequence only a limited number of communities can be experimentally validated, and it is thus important to determine which communities to select for downstream validation and experimentation. In this talk we present a novel approach for prioritizing network communities and identifying the most promising ones for further experimentation. The proposed approach can be used with any community detection method and scales to large networks. The approach allows for more efficient evaluation of hypotheses brought forward by the analysis of complex networks and thus speeding-up scientific discovery process in experimental network sciences. (Received September 23, 2017)