Inferring networks

Abstract: Networks are graphical structures that appear in a variety of biological applications from phylogenetic networks to study evolution to interaction networks to study microbial communities in soil and plants. I will describe the novel statistical advances (and challenges) to estimate 1) phylogenetic networks from genome-wide data, and 2) microbial networks from abundance data. I will conclude with some examples of how deep learning models can be applicable to infer these types of networks.