‘Variety in networks: modularity and multiple networks’

ABSTRACT

The first part of this talk will focus on key aspects of network structure, in particular modularity or community structure, methods for its detection, and implications for real networks. The talk will also highlight how modular, interacting, or multi-type networks can be exploited to alter the location of the phase transition marking the onset of large-scale connectivity in networks. Applications of this work relate to our understanding of disease spreading across geographic regions and how to engineer minimalist communications networks.