Complex Network Analysis
Networks are everywhere, from the internet and social networks to financial markets and biological systems. During recent years network science has emerged as a holistic approach used to analyze the structure and evolution of complex systems in social and economic sciences. The first part of the course aims to explain the basics of graph theory and provides an introduction to the modern field of network science to an interdisciplinary audience. In the second part of the course, students learn the conceptual tools and a wide array of statistical metrics used to characterize the structure and dynamics of networks in the context of economic complexity science. Extensive online resources, including software and packages for network analysis, make this a multifaceted course for anyone with an interest in network science. The course will include 10 contact hours taught by the course convenor Dr. Gloria Cicerone. The course is optional.