Abstract

Network structure is often determined by the particular physical space it resides. Examples include transportation networks, telecommunication networks, and power grid networks. Other networks, such as social networks or information-semantic networks, are less restricted by physical space. This has motivated the study of the geometry of complex networks. One concept from geometry recently applied to networks is the notion of "curvature" in the network or parts of the network. There are many definitions of curvature in geometry but, in essence, it is a measure of an object's deviation from planarity. In this seminar, I shall discuss some recent efforts to define curvature in networks and their relevance in a network science context.

Biography

Dr. Terrence Moore received the B.S. and M.A. from American University and the Ph.D. in Mathematics from the University of Maryland, College Park. He is currently a researcher in the Network Science Division at the U.S. Army Research Laboratory. His research interests include performance analysis and statistical inference of communication models, geometric and topological structures in complex networks, and network resilience.