

Institute for Software Research School of Computer Science Carnegie Mellon University 5000 Forbes Avenue Pittsburgh, PA 15213-3890 412.268.8383 412.268.1744 (f)

CASOS Summer Institute, June 10 - 16, 2019

The CASOS Summer Institute is a weeklong event lead by CASOS Director Kathleen M. Carley that provides an intense hands-on introduction to network analysis and visualization from a combined social-network, network-science, link-analysis and dynamic network analysis perspective. Social network, high-dimensional networks, semantic networks, and meta-networks are covered as are network dynamics and geo-spatial networks.

Participants learn about current trends, practices, and tools available for analyzing complex systems as networks. Basic social network and dynamic network measure for one-mode, bi-partite and multi-mode data are covered. Network statistic, analysis and visualization techniques are covered for static and dynamic networks. Techniques for extracting networks from text and social media are covered. Simulation techniques for forecasting change in these networks and their impact on the diffusion of ideas and beliefs are covered. Key issues associated with social media analytics, and big data are covered. Participants gain experience through a series of hands-on exercises. Data sets are provided for these exercises; however, participants who wish to can bring their own data and use it in these exercises. An examination of social network methods, complexity theory and procedures for integrating network-based metrics and statistics into computational models completes the program.

The software tools participants will learn and work with include: ORA-PRO, AutoMap, NetMapper, and Construct, which are network analysis & visualization, information extraction/text mining, and simulations tools, respectively, which are developed at CASOS and widely used globally in business, government, and education.

All participants will be given trial software, and a deep discount on the professional versions of the tools.

Registration is now open. Visit our website for more information about the program, <u>http://www.casos.cs.cmu.edu/events/summer_institute/2019/</u>.

We look forward to seeing you this summer!

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Center for Computational Analysis of Social & Organizational Systems