

Title: Dynamics and control in social networks

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Abstract: With the diffusion of new technology platforms for online interaction, as well as the proliferation of personalized sensing and tracking devices, huge amounts of data are collected and exchanged every day, detailing our behaviors, preferences, and relationships. These technologies are transforming the way individuals make decisions and therefore have a critical impact on our societies, ranging from politics (campaigns, elections, social unrests), to consumer choices (adoption of new technologies and products), as well as the user behaviors in critical infrastructure networks (transport, energy).

This open track seeks to provide a forum to discuss the most recent contributions of the control systems community to understanding and harnessing these exciting phenomena. Topics of interest to the track include: empirically grounded theoretical frameworks for analysis of opinion dynamics, information flows, communication, influence, learning, and cascades in social systems; efficient, local, and scalable algorithms for inference with social data; game-theoretic modeling and design of incentive mechanisms for steering social behaviors towards desired outcomes; architectures for the exchange of information, social interaction, and crowdsourcing.

Main IFAC TC: 1.5 Networked systems