

Eugene Wigner Colloquium

joint event of GRK 1558 and SFB 910



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“Novel Models of Opinion Dynamics”

In this talk, I will provide an introduction to the field of opinion dynamics and present two new models that have been developed in the ODYCCEUS project (www.odycceus.eu). The first model is based on the idea that agents evaluate alternative views on the basis of the social feedback obtained on expressing them. A high support of the favored and therefore expressed opinion in the social environment, is treated as a positive social feedback which reinforces the value associated to this opinion. In connected networks of sufficiently high modularity, different groups of agents can form strong convictions of competing opinions. Linking the social feedback process to standard equilibrium concepts allows to analytically characterize sufficient conditions for the stability of bi-polarization. The second model is based on a more complex representation of opinions and borrows ideas from psychological research on attitude structure and persuasive argument theory. In the model, political issues are represented as (partially overlapping) sets of arguments and these arguments are exchanged in the interaction process. If agents preferentially interact with other agents that hold similar attitudes, this gives rise to polarization and correlations of attitudes towards multiple political issues. Such correlations are usually exploited in the inference of political spaces.

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