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Título de la charla	Computational approaches to understand political polarization - How methods and models from sociophysics can help to understand the dynamics of political polarization

Resumen

The modelling of opinion dynamics is a central element in the field of sociophysics and can be told as a success story. In contrast to survey-based studies of public opinion in the social sciences, these models allow for the investigation of dynamic phenomena such as sudden opinion shifts or hysteresis effects. The study of political polarization is a key application domain for these models.

At the same time, the representation of opinions in such models remains highly abstract - typically as binary yes/no variables or along a one-dimensional continuous scale - and this limits their empirical applicability. Bridging this gap is particularly challenging when it comes to capturing conceptually distinct forms of polarization, such as diverging opinions on individual issues (issue polarization), the sorting of citizens into ideological camps (issue alignment and ideological polarization), and affective polarization.

In my talk, I discuss the challenges that arise when we seek to make our models empirically grounded. This includes questions of how opinions should be represented and measured, and what modelling approaches follow from these choices. I will also highlight the opportunities that large language models have opened up for the analysis of text data as a window into political opinions and their dynamics.