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Geometric Models of Polarization in Opinion Exchange

Abstract zum Vortrag:

Polarization and unexpected correlations between opinions on diverse topics (including in politics, culture and consumer choices) are an object of sustained attention. However, numerous classical models of agent-based opinion exchange do not seem to convincingly explain these phenomena and suggest the opinions should converge towards consensus rather than polarize.

I will discuss a recent attempt at introducing a simple model where polarization occurs naturally. The model treats opinions as multidimensional vectors, where each dimension can signify a different subject matter. Those opinions are then updated using a geometric rule. The model can be analyzed as "pure" opinion exchange, where agents keep interacting with each other undisturbed, or in a setting with additional external influences, e.g., political or commercial campaigns. I will discuss what has been proved about this model and what remains open.