

Opinion dynamics: is the voter model a model for voters?

Víctor M. Eguíluz*

IFISC, Instituto de Física Interdisciplinar y Sistemas Complejos (CSIC-UIB)[†], 07122 Palma de Mallorca (Spain)

Mostly due to the similarity with statistical physics models, the study of opinion models has attracted the attention of the community^{2,1}. The main questions addressed in this context are whether the opinion models reach consensus, an ordered configuration, or coexistence, that is, disordered configurations, the scaling of the consensus time, and the characterization of the ordering process. With the development of the complex network theory and the description of human activity patterns, opinion models have incorporated more realistic features.

Opinion models aim at capturing plausible mechanisms of social interaction. For example the voter model implements proportional imitation from the neighbors while threshold models requires some degree of consensus in the neighborhood to switch opinion. However, rarely these

models have been confronted with empirical observations or experiments mainly due to the lack of results in this direction. So to what extent the rich set of results accumulated are relevant to explain social interactions remains to be explored.

In this talk, we will review the progress made on our understanding of opinion models from a statistical physics perspective, and we will explore the possibilities of the voter model as a model for voters.

* victor@ifisc.uib-csic.es

[†] <http://www.ifisc.uib-csic.es/victor>

¹ M. San Miguel, V.M. Eguíluz, R. Toral, and K. Klemm, *Comput. Sci. & Eng.* **7**, 67-73 (2005).

² C. Castellano, S. Fortunato, and V. Loreto, *Rev. Mod. Phys.* **81**, 591-646 (2009).