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Thermodynamic model of social influence on two-dimensional square lattice: Case for two features

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HIGHLIGHTS

- We propose a thermodynamic multi-state Axelrod-like model of social influence.
- Our model is based on Potts-clock conditional interactions on the 2D square lattice.
- Various types of nonzero phase transitions are calculated by adapted DMRG algorithm.
- We report two phase transitions as experimentally measured in ferromagnetic alloys.
- A finite phase transition point is conjectured if number of traits is infinity.