Special Issue

Universality Classes of Synchronization Phase Transitions

Message from the Guest Editors

Critical universality classes of non-equilibrium models, mainly of the reaction-diffusion type, are a well-explored area of statistical physics. Much less is know about oscillatory models, which can also exhibit various types of phase transitions. Synchronization transitions are very ubiquitous in nature, and biological, neural, or power-grid systems are posed to be at the edge of such transitions. The behavior of such systems depends on the type of self-frequency, which acts as a quenched disorder. In this Special Issue we collect articles on recent advances related to the synchronization transitions on a pathway of exploring universality classes of oscillatory models.

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