

Eugene Wigner Colloquium

joint event of GRK 1558 and SFB 910



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“Bifurcation analysis of chimera states”

Chimera states are coherence-incoherence patterns observed in homogeneous discrete oscillatory media with a non-local coupling. Despite their nontrivial dynamical nature, such patterns can be effectively analyzed in the framework of the continuum limit formalism. Based on the statistical physics concept of local mean field and the Ott-Antonsen invariant manifold reduction, one can explain typical bifurcation scenarios leading to the appearance of the chimera states. This provides a natural classification of known coherence-incoherence patterns, which can be applied to predict new types of them.

Thursday, 17.04.14 · 16:15h · EW 202

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