

# **Spiral-wave structures in 2D lattices of nonlocally coupled discrete-time systems**

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## **Abstract**

We report numerical results on the dynamics of a two-dimensional lattice of nonlocally coupled two-dimensional maps. The lattice element is described by the Nekorkin map which is a discrete analogue of the FitzHugh-Nagumo system. The spatio-temporal behavior of the 2D lattice is studied for periodic and open boundary conditions. It is shown that spiral waves and spiral-wave chimera states can be observed in the system. Statistical and dynamical characteristics are analyzed and compared for individual oscillators from coherence and incoherence clusters of spiral-wave structures.