

Synchronization of Spatiotemporal Chaos in Coupled Complex Ginzburg-Landau Oscillators

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Abstract: Synchronization of spatiotemporal distributed system is investigated by considering the model of 1D diffusively coupled complex Ginzburg-Landau oscillators. An itinerant approach is suggested to randomly move turbulent signal injections in the space of spatiotemporal chaos. Our numerical simulations show that perfect turbulence synchronization can be achieved with properly selected itinerant time and coupling intensity.

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Key words: spatiotemporal chaos, chaos synchronization, coupled complex Ginzburg-Landau oscillators

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