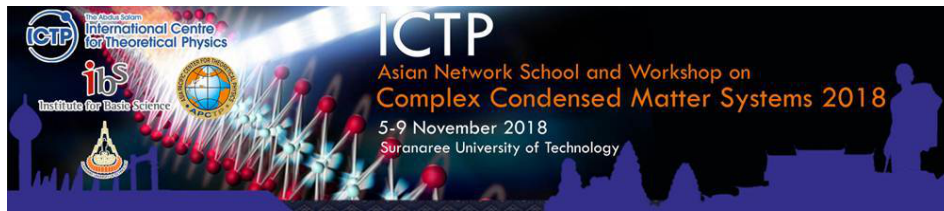


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Nonlinear Wave Spreading in Disordered Schrodinger Lattice

We study spatiotemporal evolution of wave packets of resolved normal density and energy density in a disordered discrete nonlinear Schrodinger chain. We prepare initial wave packets containing multiple-site excitations of given norm density and energy density in different regions of the equilibrium phase diagram of the discrete nonlinear Schrodinger chain. Multiple site excitations can evolve in the weak chaos or strong chaos regimes. We find an evidence of strong chaos in the discrete nonlinear Schrodinger chain. The total norm and total energy are conserved during the spreading of wave packets in time.

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Track Classification: School