Periodically driven Rydberg chains

Krishnendu Sengupta
Indian Association for the Cultivation of Science

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via Zoom (click link below to join seminar. Meeting ID: 874-837-760)
URL: https://ntu-sg.zoom.us/j/874837760 Meeting Password: 287362

In this talk, we shall discuss the dynamics of a periodically driven Rydberg chain. We shall show that the drive frequency may act as a tuning knob for accessing several dynamical regimes in this system and features phenomena like dynamics freezing and weak ETH (eigenstate thermalization hypothesis) violation. Our analysis will be based on exact numerics which uses exact diagonalization for finite chain and a Floquet perturbation theory which allows us to write down an analytic, albeit perturbative, expression of the Floquet Hamiltonian of the driven chain at arbitrary drive frequencies. We shall discuss experiments which may test our theory.

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