Workshop on Integrability



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Measurement catastrophes in quantum jammed states

Thursday, 31 March 2022 12:00 (1 hour)

Local measurements can sometimes lead to unexpected macroscopic behaviours. Such "measurement catastrophes" in integrable models go beyond generalized hydrodynamics, that is arguably the most effective largescale description of dynamics in integrable models in the presence of inhomogeneities. A noteworthy occurrence of this phenomenon is found in systems exhibiting quantum jamming. I will provide a simple and solvable example by considering a particular class of the jammed states of the large-anisotropy limit of the Heisenberg magnet. That will allow me to present the microscopic dynamics behind the emergence of ballistic profiles of local observables following a local measurement in that particular model.

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Track Classification: Participants Talks: Abstracts of Participants Talks