

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 large-scale 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.

Primary author: BOCINI, Saverio (LPTMS - Université Paris-Saclay)

Presenter: BOCINI, Saverio (LPTMS - Université Paris-Saclay)

Track Classification: Participants Talks: Abstracts of Participants Talks