

OpenQMBP2023: New perspectives in the out-of-equilibrium dynamics of  
open many-body quantum systems



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## Diffusion and subdiffusion in the disordered quantum and classical Heisenberg spin chains

*Tuesday, June 20, 2023 2:00 PM (20 minutes)*

I will present some work on disordered Heisenberg model on a chain which shows that, depending on the strength of the disorder, both the classical and quantum model have a transition from diffusive to subdiffusive transport.

Based on:

AJ McRoberts, F Balducci, R Moessner, A Scardicchio  
arXiv preprint arXiv:2304.05423

IV Protopopov, RK Panda, T Parolini, A Scardicchio, E Demler, DA Abanin  
Physical Review X 10 (1), 011025

**Presenter:** SCARDICCHIO, Antonello

**Session Classification:** Quantum Trajectories and Measurement Induced Phase Transitions