

Title: Eigenstate correlations in spatially extended chaotic many-body quantum systems

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Abstract: I will discuss correlations between eigenstates of the time-evolution operator that are associated with features of the dynamics at long times and large distances in spatially extended chaotic many-body quantum systems. These correlations are the counterpart for many-body systems of ones that are familiar in single-particle models of diffusive conductors, for example via the diffusion propagator.

Based on joint work with Dominik Hahn and David Luitz, and with Takato Yoshimura and Sam Garratt:

[arXiv:2312.14234](https://arxiv.org/abs/2312.14234)

[arXiv:2309.12982](https://arxiv.org/abs/2309.12982)