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Title: Measurement induced transition in long-range systems

Abstract: The interplay of coherent and incoherent dynamics has a rich and long history in the context of quantum physics. A series of recent works has introduced a new perspective that, instead of focusing on the properties of the average steady state, studies the many-body properties at the level of single quantum trajectories. In this context, it has been shown how the competition between quantum measurements and coherent dynamics (either analog or digitally generated) can give rise to transitions that manifest themselves in specific observables that are not properties of the averaged state.

I will discuss dissipative and measurement induced transitions in long-range spin systems together with the possibility to mitigate the so-called post-selection problem.