

# What are open quantum systems?

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**ABSTRACT:** Systems are called open if they exchange particles/energy/information with their surroundings. A prime example is a spin, or an array of spins, interacting with a bath of phonons or photons. Open quantum systems play an important role in many modern aspects of quantum theory, in quantum computing, quantum chemistry and quantum biology. The aim of the seminar is to outline the theoretical formalism of open systems and to present some typical phenomena (irreversible dynamics, decoherence, disentanglement).

**ALL ARE WELCOME!!!**