Physikalisches Kolloquium

Universität Konstanz

Di 18.07.17
15:15 Uhr
14:45 Uhr, Kaffee/Tee
R 513

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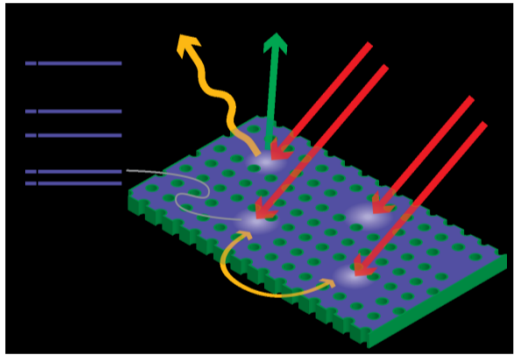
Dissipative Phase Transitions



Thanks to the recent impressing experimental progresses, the investigation of non-equilibrium properties of driven-dissipative systems in quantum systems has received an impressive boost. This activity revived the study of dissipative phase transition in synthetic matter, originally started with Josephson junction arrays. Rydberg atoms in optical lattices, systems of trapped ions, exciton-polariton condensates, cold atoms in cavities, arrays of coupled QED cavities, are at present the most intensively investigated experimental platforms in relation to this aim. The predicted steady-state phase diagram of these driven dissipative systems becomes incredibly rich, displaying a variety of phenomena. I will discuss several aspects that are peculiar of these systems, not shared with the conventional picture we have at equilibrium. I will discuss in particular the possible existence of exotic phases in the steady state.