



Einladung zum Vortrag

Quantum control of spins and phonons

von

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Ort: Lise-Meitner-Hörsaal
9. Boltzmannngasse 5/Strudlhofgasse 4, 1.Stock

Abstract:

In this talk I will start with a brief introduction on the general topic of 'quantum control' and why we would actually like to achieve control over quantum systems in the lab. In the remainder of the talk I will then present a few specific examples connected to my own research, which illustrate how a basic level of quantum control over macroscopic mechanical degrees of freedom can be realized. Specifically, I will discuss the preparation and detection of superposition states of massive objects using only a single defect center in diamond, but also the control of energy and information flow in coupled mechanical resonator arrays and phononic (quantum) networks.