Physikalisches Kolloquium

Di 10.05.22 15:15 Uhr R 513



Antrittsvorlesung

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Quantum engineered systems

In recent years, there has been rapid development in control and manipulation of coherent quantum systems. These advances allow for the study and utilization of coherent quantum phenomena as well as the exploration of quantum mechanical concepts that were formerly of purely theoretical interest in realistic many-body setups. In my talk, I will present effects that are demonstrated using quantum engineered systems, open questions that appear in the field, as well as their potential for novel applications. Specifically, we deal with the theory of such systems and their modern ramifications such as topology, out-ofequilibrium, controllability, and consequences for fundamental physics and device applications.