## Prof. Dr. Markus Aspelmeyer

Universität Wien, Fakultät für Physik

## How does a quantum object gravitate?

No experiment today provides evidence that gravity requires a quantum description. The growing ability to achieve quantum optical control over massive solid-state objects may change that situation – by enabling experiments that directly probe the phenomenology of quantum states of gravitational source masses. I will review the current status in the lab and the challenges to be overcome for future experiments.