

# Kolloquium

## Theoretische Physik

Mo 26.11.18  
13:30 Uhr  
P 603



**Prof. Dr. Renato Renner**  
ETH Zürich

### Beyond Schrödinger's Cat

Can quantum mechanics be used to describe a physicist who herself uses quantum mechanics? Clearly, if quantum mechanics was a universally valid physical theory, the answer should be yes. In my talk, I will present an extension of Schrödinger's cat thought experiment, with the cat replaced by a quantum physicist (or, maybe preferably, a computer that is programmed to make predictions based on the laws of quantum physics). This allows us to provide an answer to the question posed above.

The talk is based on the recent paper "Quantum theory cannot consistently describe the use of itself" by Frauchiger and Renner (Nature Communications 9, 3711, 2018).