## Geometrical manifestation of gravity and its cosmological implications

Prof. Dr. Lavinia Heisenberg

Institut für Theoretische Physik, Universität Heidelberg

I will first discuss how gravity can manifest itself geometrically. Using different geometrical properties of a spacetime I will formulate General Relativity in different but equivalent ways. This will allow me to introduce a generalization of gravity with distinct and interesting implications for cosmology and black hole physics and how we can test them.