



COLLOQUE DE PHYSIQUE

Lundi 6 mars 2023, 12h30

École de Physique, Auditoire Stueckelberg

«Fundamental Physics and Cosmology with the Einstein Telescope»

Prof. Michele Maggiore

Université de Genève

The observation of gravitational waves by the LIGO/Virgo collaboration has opened a new window on the Universe. In this decade, however, these experiments will reach the limit of their capabilities, and a new generation of ground-based detectors is being planned. In Europe, this has led to the proposal of the Einstein Telescope. With order of magnitude improvement in the sensitivity, Einstein Telescope will explore the depth of the Universe using gravitational waves, and has the potential of triggering revolutions in astrophysics, cosmology and fundamental physics. We will give a broad overview of its capabilities and scientific targets. We will also take the opportunity of highlighting the role played in this enterprise by Geneva University and by the recently created Gravitational Wave Science Center.