



Contribution ID: 68

Type: **not specified**

Experimental challenges for space-based gravitational wave detectors: overview of LISA

Thursday, 9 September 2021 15:00 (30 minutes)

In this talk we address the measurement concept and the main experimental challenges for LISA, the first space-based GW observatory, to be launched in 2034. The task of using laser interferometry to measure the GW tidal deformation of a constellation of free-falling test masses is discussed, both in the context of heritage from the preparatory single-spacecraft mission - LISA Pathfinder - and for the unique remaining challenges to be met by the first orbiting GW observatory, whose location will allow the exploration of the mHz frequency band only accessible from space.

Presenter: CASTELLI, Eleonora (Università degli Studi di Trento - INFN)

Session Classification: The future of Gravitational waves astronomy

Track Classification: Experimental Gravitation