AWARDS

2020 TYCHO BRAHE MEDAL AWARDED TO STEFANO VITALE

Yearly awarded in recognition of the development or exploitation of European instruments or major discoveries based largely on such instruments, for 2020 the Tycho Brahe Medal has been awarded to Stefano Vitale, full professor at the University of Trento and INFN researcher, for leading the LISA Pathfinder mission. The mission has demonstrated with extraordinary precision the feasibility of the technology required for the future Laser Interferometer Space Antenna whose fundamental aim is to observe low frequency gravitational waves from space.

Since 1995, Stefano Vitale has been involved in space activities devoted to tests of General Relativity and to observe gravitational waves, the latter as a member of the ESA study team for LISA. Since 2003, Vitale is the Principal Investigator (PI) of the LISA Technology Package payload on board of the LISA Pathfinder mission of ESA. Since mid of 2017, he is chair of the Science Program Committee (SPC) of ESA. Stefano Vitale played a crucial role in the conception of LISA Pathfinder and subsequent design, then in its realization, in its tests on Earth before launch and in the subsequent analysis of the data. LISA Pathfinder was launched in December 2015 and took data very successfully until July 2017. The excellent performance of LISA Pathfinder, together with the ground-based detection in 2016 and 2017 of gravitational waves by LIGO and Virgo interferometers, made a significant impact and helped the selection on 20 June 2017 of LISA by ESA as one of its large missions (L3). The now established drag-free technology also opens the door to other uses in the space science beyond the gravitational wave detection, as for instance it could be used for satellite missions aiming at testing more precisely the general relativity.