



UNIVERSITÀ
DI TRENTO

Dipartimento di
Fisica



PhD Program in Space Science and Technology - SST

The Jupiter Icy Moon Explorer (JUICE) mission Specific Seminar – Curriculum 3 and Curriculum 6 2023, October 25, 3 p.m.

Speaker:

Prof. Lorenzo Bruzzone, Department of Information Engineering and Computer Science - University of Trento

Abstract:

The JUper ICy moon Explorer (JUICE) is the first Large-class mission of the Cosmic Vision programme of the European Space Agency (ESA). It was launched in April 2023 for reaching the Jupiter system in 2031. JUICE has many science objectives related to Jupiter and its icy moons Ganymede, Europa and Callisto. The main purpose of the mission is to study the habitability of the icy moons, i.e., to understand if there are the conditions for making hypothesis on the possible presence of life. The talk will present the science objectives of JUICE, the technological challenges addressed to develop of the first ESA mission in the outer part of the Solar System and the status of the spacecraft after the Near Earth Commissioning Phase completed in July.

Short Bio:

Lorenzo Bruzzone is Professor at the University of Trento, Italy, where he was the founder and is the director of the Remote Sensing Laboratory (<https://rslab.disi.unitn.it/>) in the Department of Information Engineering and Computer Science. He teaches remote sensing, radar, and digital communications. His research interests are in the areas of remote sensing, radar, signal processing and artificial intelligence in the context of planetary exploration and Earth observation. He was/is the Principal Investigator of many research projects. Among the others, he is currently the Principal Investigator of the Radar for Icy Moon Exploration (RIME) instrument in the framework of the JUper ICy moons Explorer (JUICE) mission of the European Space Agency (ESA) and of the Sub-surface Radar Sounder (SRS) in the context of the ESA EnVision mission to Venus. He is the author (or coauthor) of more than 360 scientific publications in referred international journals, more than 350 papers in conference proceedings, and 22 book chapters. His papers are highly cited, as proven from the total number of citations (more than 47000) and the value of the h-index (104) (source: Google Scholar). Dr. Bruzzone was recipient of many international and national awards. He is a Fellow of IEEE.

Online attendance:

Meeting ID: 843 7252 1541, Passcode: 783003

Link: <https://unitn.zoom.us/j/84372521541?pwd=ekpqbmd6bzBGdnRWK2pJRGFPNHNdmdz09>

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