Contribution ID: **21** Type: **not specified**

ANDES, lo spettrografo ad alta risoluzione per l'ELT: un'opportunità futura per la comunità astronomica italiana

Tuesday, 16 May 2023 17:30 (15 minutes)

ANDES (ArmazoNes high Dispersion Echelle Spectrograph), formerly known as ELT-HIRES, is the high-resolution optical-infrared spectrograph for the ESO/ELT (European Southern Observatory/Extremely Large Telescope) thought to study astronomical objects that require highly sensitive observations. It will be used to search for signs of life in Earth-like exoplanets, find the first stars born in the Universe, test for variations of the fundamental constants of physics, and measure the acceleration of the Universe's expansion. ANDES baseline concept combines high spectral resolution (up to 100,000), wide spectral range (0.4 μm to 1.8 μm with a goal from 0.35 μm to 2.4 μm) and extreme stability in wavelength calibration accuracy (better than 0.02 m/s rms over a 10-year period in a selected wavelength range) obtained by four spectrographic modules fed by fibers and operating in seeing and diffraction limited (adaptive optics assisted) mode.
The construction phase of ANDES, approved by ESO council at the end of 2021 and currently ongoing, is a cumulative efforts of 33 institutes from 13 countries. Italy, through INAF, leads and coordinates the project. Principal Investigator, Project Manager, System Engineer, Instrument Scientist, Software System Engineer and most of the other components of the project office are part of INAF. INAF is also responsible of the construction of two core subsystems of ANDES: the Fiber Link and the Adaptive Optics module. In this talk, I'll present the project and challenges we need to face for its final construction.

Presenter: DI MARCANTONIO, Paolo (Istituto Nazionale di Astrofisica (INAF))

Session Classification: Banda IR-Ottico