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GO-IRS: GTC Optical Intermediate-Resolution Spectrograph

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Abstract

GO-IRS stands for "GTC Optical Intermediate Resolution Spectrograph". It is the answer of a big team of over 100 experienced researchers and engineers in the United States, China and Spain to the recent call for new instrumentation for the 10.4 m Gran Telescopio Canarias. The GO-IRS main facts are: 1000 MOS fibres in a 15 arcmin circular field of view; 4×400 IFU fibres in the central 2 arcmin; two channels: blue ($\Delta\lambda$ = 0.37–0.60 μm) and red ($\Delta\lambda$ = 0.60–1.00 μm); R = 20k, 10k, 5k (red), 2k (blue) and intermediate spectral resolutions; and use of telescope-proof technology (e.g. LAMOST, MARVELS). The GO-IRS Science Team is developing three design reference cases on near-field cosmology in the Milky Way, kinematics and abundances in galaxies of the Local Group and of the local Universe, and astrophysical properties and clustering of distant galaxies at z = 1–4. We open our GO-IRS Science Team to all Spanish astronomers interested in working with us. Visit our URL at marvels.astro.ufl.edu/GO-IRS.