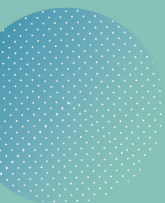




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MEGADES: MEGARA Galaxy Discs Evolution Survey. Data Release I: central fields

by M. Chamorro-Cazorla et al.

(including M. Chamorro-Cazorla , A. Gil de Paz,
A. Castillo-Morales, J. Gallego, S. Pascual, N. Cardiel,
C. Catalán-Torrecilla, J. Zamorano, P. Sánchez-Blázquez)

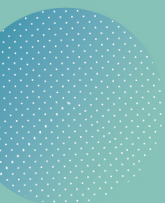
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Abstract

The main interest of the science team for the exploitation of the MEGARA instrument at the 10.4 m Gran Telescopio Canarias (GTC) is devoted to the study of nearby galaxies. The focus lies on researching the history of star formation, and the chemical and kinematical properties of disc systems. We refer to this project as MEGADES: the MEGARA galaxy disc evolution survey. The initial goal of MEGADES is to provide a detailed study of the inner regions of nearby disc galaxies in terms of their spectrophotometric and chemical evolution, and to provide a dynamical characterisation by distinguishing the contribution of in situ and ex situ processes to the history of star formation and effective chemical enrichment of these regions. In addition, the dynamical analysis of these inner regions naturally includes the identification and characterisation of galactic winds that might be present in these regions. At a later stage, we will extend this study farther out in galactocentric distance. The first stage of this project encompasses the analysis of the central regions of 43 nearby galaxies observed with the MEGARA integral field unit for ~ 114 h, including both guaranteed time and open time observations. In this paper we provide a set of all the processed data products available to the community and early results from the analysis of these data regarding stellar continuum and ionised and neutral gas features.

Key words: galaxy: bulge / galaxies: ISM / galaxies: evolution / galaxies: stellar content / techniques: imaging spectroscopy

