*Highlights of Spanish Astrophysics VIII, Proceedings of the XI Scientific Meeting of the Spanish Astronomical Society held on September 8–12, 2014, in Teruel, Spain. A. J. Cenarro, F. Figueras, C. Hernández-Monteagudo, J. Trujillo Bueno, and L. Valdivielso (eds.)*

# Physical properties of low-mass star-forming galaxies at intermediate redshifts ($z < 1$)

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## Abstract

In this poster we present the physical properties of a sample of low-mass star-forming galaxies at intermediate redshifts ($z < 1$). We selected a population of dwarf galaxies because dwarf galaxies play a key role in galaxy formation and evolution: (1) they resemble the first structures that hierarchical models predict to form first in the Universe (Dekel & Silk 1986) and that are responsible for the reionization process (Bouwens et al. 2012); and (2) the way or epoch they form and how they evolve are still open questions of modern astrophysics.

We selected the sample on the CDFS field. Photometry (40 bands, from UV to far-IR) and preliminary photometric redshifts and stellar masses were obtained from RAINBOW database (Pérez-González et al. 2008). Morphology fom Griffith et al. (2012). Main selection was done by stellar mass, selecting those galaxies with stellar mass $M_* < 10^8\,\mathrm{M}_\odot$. Spectroscopic redshifts were obtained from deep (4 h) MOS spectroscopy with the VIMOS spectrograph at VLT. The average spectrum is characterized by a faint, blue and flat continuum and strong emission lines, revealing that the systems are dominated by an undergoing star formation burst.

SFRs and stellar masses are consistent with the SF main-squence over a 2 dex range. More massive objects show higher SFRs than low-mass objects, following the SF main sequence. Distant dwarfs and BCDs follow the overall star-forming sequence in the excitation-luminosity diagram, populating the high excitation, low metallicity and high strength region.