

Pixel Colour-Magnitude Diagram Analysis of the Fornax Cluster using S-PLUS images

Escudero, Carlos^{1,2}; Smith Castelli, Analía^{1,2}; Faifer, Favio^{1,2}; Sesto, Leandro^{1,2}

¹ *Facultad de Ciencias Astronómicas y Geofísicas (FCAGLP-UNLP), Argentina*

² *Instituto de Astrofísica de La Plata (IALP-CONICET), Argentina*

Abstract / We present a study of pixel colour-magnitude diagrams (pCMDs) for a sample of 17 galaxies located in the Fornax cluster. Using S-PLUS images in broad-band filters, we construct individual colour-magnitude diagrams of the galaxies such that each point corresponds to one pixel of a galaxy image. A pixel-by-pixel analysis provides a novel way of looking at the stellar populations and structures of galaxies and reveals information that an analysis of integrated light does not. The pCMDs obtained in this study, despite appearing to vary widely, tend to have similar features when sorted by galaxy type.

Contact / cgescudero@fcaglp.unlp.edu.ar