2D Star Formation Rate Properties of Nearby Galaxies with J-PLUS DR1.

R. Logroño-García¹, G. Vilella-Rojo¹, C. López-Sanjuan¹, J. Varela¹, K. Viironen and the J-PLUS team

¹ Centro de Estudios de Física del Cosmos de Aragón (CEFCA)

Abstract

The Javalambre Photometric Local Universe Survey (J-PLUS; Cenarro et al. 2018), is observing thousands of square degrees of the northern sky from the Observatorio Astrofísico de Javalambre (OAJ) in Teruel, Spain. The survey is being carried out with the 0.83 meter JAST/T80 telescope and the panoramic camera T80Cam with a 2 deg² FoV. A set of twelve broad, intermediate, and narrow band optical filters is used. The large FoV, the position of the filters, and the survey strategy; are suitable to perform science that will expand our knowledge in many fields of astrophysics. More concretely, the J0660 narrow-band filter covers the Hα emission-line flux of nearby galaxies up to \( z \leq 0.017 \), making J-PLUS a powerful tool to study the 2D star formation rate (SFR) properties of these galaxies. [See poster]