

First light survey instruments for the Observatorio Astrofísico de Javalambre

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Abstract

The Observatorio Astrof sico de Javalambre (OAJ) is a new astronomical facility located at the Sierra de Javalambre (Teruel, Spain) whose primary role will be to conduct all-sky astronomical surveys. The OAJ facility will have two wide-field telescopes: the T250/JST; a 2.55-m telescope with a 3  diameter FoV, and the T80/JAST; a 0.83 m telescope with a 2  diameter FoV. In this poster the JAST/T80 and JST/T250 first light panoramic instruments are presented.

T80Cam is a wide-field camera that will be mounted at the Cassegrain focus of the T80/JAST. It is intended for surveys, starting with the planned J-PLUS (Javalambre Photometric Local Universe Survey) survey, a twelve-band photometric all-sky survey.

JPCam is a 14-CCD mosaic camera using the new e2v 9k-by-9k 10 μm pixel detectors, providing a pixel scale of 0.2''/pixel when mounted on the T250/JST. It is designed to perform the Javalambre-PAU Astrophysical Survey (J-PAS), a BAO survey of the northern sky. The J-PAS survey will use 57 filters, 54 narrow-band filters (~ 13.8 nm) equi-spaced between 350 and 1000nm plus 3 broad-band filters to achieve unprecedented photometric red-shift accuracies for faint galaxies over ~ 8000 square degrees of sky.