



## M33 @ Observatorio Astrofísico de Javalambre

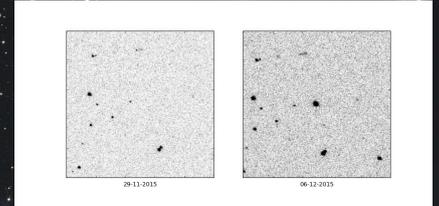
H. Vázquez Ramió<sup>a</sup>, A. Ederoclite<sup>a</sup>, J. L. Lamadrid<sup>a</sup>, B. Blanco Siffert<sup>c</sup>, I. San Roman<sup>a</sup>, D. Cristóbal-Hornillos<sup>a</sup>, J. Varela<sup>a</sup>, P. Coelho<sup>d</sup>, M. Moles<sup>a,b</sup>, A. J. Cenarro<sup>a</sup>, A. Marín-Franch<sup>a</sup>, M. Chioare Díaz-Martín<sup>a</sup>, R. Iglesias Marzoa<sup>a</sup>, V. Tilve<sup>a</sup>, S. Rodríguez<sup>a</sup>, N. Maicas<sup>a</sup>, C. López San Juan<sup>a</sup>, K. Viironen<sup>a</sup>, G. Vilella Rojo<sup>a</sup>, R. Logroño García<sup>a</sup>, J. Abril Ibañez<sup>a</sup>

<sup>a</sup>Centro de Estudios de Física del Cosmos de Aragón (CEFCFA); <sup>b</sup>Instituto de Astrofísica de Andalucía, Consejo Superior de Investigaciones Científicas (CSIC); <sup>c</sup>Universidade Federal de Rio de Janeiro; <sup>d</sup>Universidade de São Paulo

### Abstract

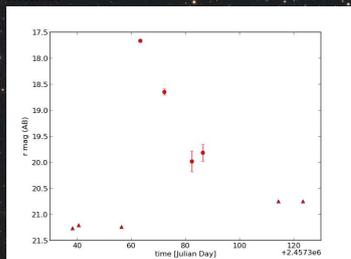
M33, the Triangulum Galaxy, is a spiral galaxy in the Local Group. Given its brightness and its vicinity with Andromeda Galaxy (M31), it is one of the best studied objects of the Northern hemisphere. In this poster, we present observations carried out with the JAST/T80 at the Observatorio Astrofísico de Javalambre. The extraordinary field of view of this telescope allows us to study the stellar populations of the galaxy with a single observation. Moreover, repeated observations have provided us the possibility to follow a variety of variable stars, among them the nova ASASSN-15th.

The RGB image of M33 was obtained combining *g,r,i* and *J0660* images for a total time of 440s, 460s, 410s y 3840s, respectively. The average psf is  $\sim 1.6''$

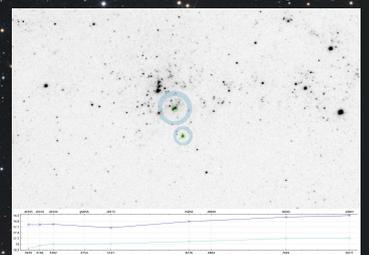


Our differential imaging pipeline detected a transient on an image obtained on Dec 6, 2015. After a closer inspection the transient was identified with the asteroid (45487) 2000 AR237 which, due to its slow motion, was picked by the software.

*r*-band light curve of the nova ASASSN-17th (Kiyota et al. 2015) as observed with JAST/T80. Triangles are upper limits.



SEDs of globular clusters # 14 and 15 (following the identification provided in San Roman et al. 2009) obtained with the J-CUBE program.



Based on observations made with the JAST/T80 telescope at the Observatorio Astrofísico de Javalambre, in Teruel, owned, managed and operated by the Centro de Estudios de Física del Cosmos de Aragón. We thank the OAJ Data Processing and Archiving Unit (UPAD) for reducing and calibrating the OAJ data used in this work. The OAJ is funded by the Fondo de Inversiones de Teruel, supported by both the Government of Spain (50%) and the regional Government of Aragón (50%). This work has been partially funded by the Spanish Ministerio de Ciencia e Innovación through the PNAYA, under grants AYA2006-14056 and through the ICTS 2009-14, and the Fundación Agencia Aragonesa para la Investigación y Desarrollo (ARAID). The UPAD acknowledges support from Spanish MINECO (FCDD10-4E-867), cofunded by the European Fund for Regional Development (FEDER) and Fondo de Inversiones de Teruel (FITE).