Two years of polar winter observations with the ASTEP400 telescope

L. Abe; J.-P. Rivet; A. Agabi; E. Aristidi; D. Mekarnia; I. Goncalves; T. Guillot; M. Barbieri; N. Crouzet; F. Fressin; F.-X. Schmider; Y. Fantet-Caujolle; J.-B. Daban; C. Gouvre; S. Peron; P.-Y. Petit; A. Robini; M. Dugue; E. Bondoux; T. Fruth; A. Erikson; H. Rauer; F. Pont; A. Alapini; S. Aigrain; J. Szulagyi; P.-E. Blanc; A. Le Van Suu

Abstract

The ASTEP program is dedicated to exo-planet transit search from the Concordia Station located at Dome C, Antarctica. It comprises two instruments: a fixed 10cm refractor pointed toward the celestial South Pole, and a 400mm Newton telescope with a 1x1 degree field of view. This work focuses on the latter instrument. It has been installed in November 2009, and has been observing since then during the two polar winters 2010 and 2011. After presenting the main science observing programs, we review the telescope installation, performance, and describe its operating conditions as well as the data reduction and handling strategy. The resulting lightcurves are generally very stable and of excellent quality, as shown by continuous observations of WASP-19 that we present here. © (2012) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.

Topics

Domes; Equipment and services; Planets; Telescopes

Citation

L. Abe; J.-P. Rivet; A. Agabi; E. Aristidi; D. Mekarnia, et al.

"Two years of polar winter observations with the ASTEP400 telescope", Proc. SPIE 8444, Ground-based and Airborne Telescopes IV, 84445I (September 17, 2012); doi:10.1117/12.925570

Sign in or Create a personal account to buy this article ($15 for members, $18 for non-members).