Observatorio Astrofísico de Javalambre: observation scheduler and sequencer

A. Ederoclite[1], D. Cristóbal-Hornillos[1], M. Moles[1,2], A. J. Cenarro[1], A. Marín-Franch[1], A. Yanes Díaz[1], N. Gruel[1], J. Varela[1], S. Chueca[1], F. Rueda-Teruel[1], S. Rueda-Teruel[1], R. Luis-Simoes[1], J. Hernández-Fuertes[1], Á. López-Sainz[1], and M. Chioare Díaz-Martín[1]

[1] Centro de Estudios de Física del Cosmos de Aragón
[2] Instituto de Astrofísica de Andalucía, Consejo Superior de Investigaciones Científicas (CSIC)

Abstract

Observational strategy is a critical path in any large survey. The planning of a night requires the knowledge of the fields observed, the quality of the data already secured, and the ones still to be observed to optimize scientific returns. Finally, field maximum altitude, sky distance/brightness during the night and meteorological data (cloud coverage and seeing) have to be taken into account in order to increase the chance to have a successful observation. To support the execution of the J-PAS project at the Javalambre Astrophysical Observatory, we have prepared a scheduler and a sequencer (SCH/SQ) which takes into account all the relevant mentioned parameters. The scheduler first selects the fields which can be observed during the night and orders them on the basis of their figure of merit. It takes into account the quality and spectral coverage of the existing observations as well as the possibility to get a good observation during the night. The sequencer takes into account the meteorological variables in order to prepare the observation queue for the night. During the commissioning of the telescopes at OAJ, we expect to improve our figures of merit and eventually get to a system which can function semi-automatically. This poster describes the design of this software.

Acknowledgments