

Observational Astronomy

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Subject:

The work of an astronomer is strictly related with a wide range of professional resources and programming tools, that will be introduced in this course.

- In the first part of this course, we will go step-by-step through a typical workflow of an observational astronomer, starting from the preparation of a telescope observation using the most rated webtools. For each step, we explain how to script these operations using the astropy python package, which nowadays a standard in the field.
- In the second part, we face the time request process for a professional ESO telescope, and the subsequent phase of preparation of the so-called "Observation Block". We then propose to the students to mock this process by writing a proposal and preparing an observation with the telescope of the Astronomical Observatory of Antola Park (OARPAF).
- In the third part, students will perform their own observation at OARPAF.
- Finally, we introduce the astronomical archives where previous observations can be retrieved. We present the standard file format used in astronomy, and how to manage it with the typical tools and the astropy package. Students will use these resources to analyze and present their data.