European Solar Telescope for the French heliophysics community

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Résumé

The European Solar Telescope (EST, https://est-east.eu/) is a project of the next-generation large-aperture European solar telescope. with a 4.2m primary mirror, it will be optimised for studies of the magnetic coupling of the different layers of the solar atmosphere, from the deep photosphere to the upper chromosphere. EST shall become the most powerful European ground-based facility to study the Sun in the next 2-3 decades, in the visible and near-infrared bands. EST will provide diagnostics of the thermal, dynamic and magnetic properties of the plasma over many scale heights, by using multi-wavelength imaging, spectroscopy and spectropolarimetry. EST project is presently at a crucial stage, situation that is driving the need of an in-depth reflection on the relevance and implication of the French astrophysics community on the EST project. A clear strength of our community remains the production of (added-value) data for space weather. EST shall also provide new unprecedented datasets that will be of high interest for French space-weather-oriented services. In the present talk, I'll highlight some of the EST observables, which have been listed in a dedicated white paper on the pertinence of the European Solar Telescope (EST) for the French astrophysical community, that are specifically relevant for French solar physics and space-weather-oriented research axes.

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