

Editorial

GREGOR first results

With an aperture of 1.5 m, the new solar telescope GREGOR operating in Tenerife is the largest of its kind in Europe. It provides an unprecedented combination of spatial resolution and polarimetric sensitivity to investigate the small-scale magnetic fields on the Sun in the photosphere and chromosphere.

In this issue, we publish a series of papers based on the first science data from the GREGOR telescope and its post-focus instrumentation. Namely, a high-resolution imaging camera, a spectro-polarimetric imager, and an infrared spectro-polarimeter. By covering a wide range of topics, these papers illustrate the high potential of GREGOR: they provide new insight into the weakest magnetic fields in very quiet regions, they reveal new features of the structure and dynamics in sunspots and active regions, and they show new aspects of reconnection during solar flares.

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