
Instrument concepts for the observation of prominences with future ground-based telescopes

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Abstract

Present trends in the observation of the Sun with ground-based solar telescopes converge into a desire of simultaneously measuring spatial, spectral and polarimetric information. Spectro-imagers with polarimetric capabilities of different kinds are seeing first light or being tested in most of the present ground-based solar telescopes. The observation of prominences is not strange to these trends. I will review present instrumentation in ground telescopes for prominences: from instruments measuring prominence magnetic fields (THEMIS, TIP and DST-Spinor) to those measuring the spatio-temporal evolution of the prominence plasma (like ROSA). The future instruments should maintain and combine the capabilities of present ones: what should those instruments look-like? This talk will try to answer this question in the advent of 4-m class solar telescopes as EST and ATST.

Keywords: polarimetry. Spectroimaging. Ground, based telescopes

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