

Tomography of the lower solar atmosphere

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Abstract

The dynamical processes that take place in the photosphere and propagate through the lower chromosphere are extremely important in order to understand high energetic release in the chromosphere/corona. We give a short review on high resolution solar photospheric observations and then present mainly one instrument, HeLLRIDE that enable quasi simultaneous observation of different layers in the solar photosphere/chromosphere up to about 2500 km. At present, this instrument is installed at the German VTT but a migration to GEGOR is considered.

First results of coherent evolution of temperature and velocity fields are shown.

Other instrument using spectro polarimetry are available at the SVST. Polarimetry will be also included in HeLLRIDE in the near future