Astronomy & Astrophysics

HIGHLIGHTS: this week in A&A

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In section 9. The Sun

"Dynamics of small-scale magnetic fields on the Sun: observations and numerical simulations", by N. Bello Gonzalez, L. Yelles Chaouche, O. Okunev, and F. Kneer, A&A 494, p. 1091

Using a Fabry-Perot spectro-polarimeter, the authors obtained maps of the solar surface with full spectral information allowing them to deduce the magnetic field. This allows a high temporal resolution combined with a large field of view not possible with a slit spectrometer. A comparison with synthetic data from MHD simulations allows a comparison of the observed and modeled near-surface magneto-convection. This shows that a spatial resolution of at least 0.1 arcsec is needed in the observations to better understand solar magnetism. This will hopefully be achieved with the next generation of solar telescopes.