



Spectropolarimetry at Pic du Midi Observatory

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The Pic du Midi Observatory has built a strong expertise in polarimetry over the years, with the development of instruments such as Sterenn and MUSICOS. The 2m Telescope Bernard Lyot (TBL) is now fully dedicated to spectropolarimetric studies with the NARVAL instrument, which covers in a unique exposure the 375-1050 nm spectral range with a spectral resolution of 65,000, and gives access to the 4 Stokes parameters. This lead to significant progress in our understanding of magnetism over the whole HR diagram, thanks to detections down to the Gauss level and the continuous follow-up of stars during many years.

The future is also very promising, with the development of the Neo-Narval instrument which will be stabilized in velocimetry down to 3 m/s, allowing in particular magnetic jitter vs. exoplanet detections (1st light planned in 2019) and SPIP, which will cover the near-infrared range.

I will present illustrative recent results obtained with the NARVAL instrument, as well as the future instrumentation.