

Reduction of echelle and long-slit Zeeman spectra in MIDAS

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Abstract. The use of CCD detectors generates a need for elaboration of programmes for reduction of astronomical digital images. Zeeman spectra observed with echelle and long-slit spectrographs are a special sort of such images. The reduction of Zeeman spectra has a number of specific peculiarities which are not provided in standard spectral data reduction programmes. In this article we describe a set of programmes for the reduction of Zeeman spectra. The programmes have been designed as a ESO MIDAS context. The context allows the standard reduction of both echelle and long-slit Zeeman spectra to be made. Moreover the context contains programmes allowing automation of positional measurements for calculation of the effective magnetic field and measurement of radial velocities. An ability to reduce normal, not Zeeman, spectra has been provided.