

Planetology in VO: Workflow for fast and simple analysis of Elodie spectra

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Elodie is an high resolution spectrometer installed in 1995 on the 193 cm telescope of Observatoire de Haute-Provence in France and is therefore part of IDIS. Elodie archive includes spectra of planets of the solar system and exoplanets like the first one discovered by radial velocity method in 1995 by Mayor and Queloz: 51 Peg b. The workflow presented here allows fast spectral shift calculation with enough accuracy to retrieve planetary effect in case of 51 Peg but can also be used to analyse other types of series of spectrometric observations. After selection of a star by the client, the workflow looks for previous detection in Exoplanet Encyclopedia web site (a VOTable), takes exoplanets parameters from this site if exists, goes to Elodie for archived spectra of the selected star, makes fast spectral analysis of all spectra found in Elodie and returns in VO table format calculated or validated exoplanet's orbital properties. A demo on 51 Peg (or on other star on request) will be presented. An exercise for students developed for teaching purpose and based on this workflow is proposed and widely used by the teaching community.