Consultation BDD

POLLUX

Type

AA-ANO5

Coordination

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Description

POLLUX is a stellar spectra database proposing access to theoretical data. High resolution synthetic spectra have been computed using the best available 1-D models of atmosphere (CMFGEN, ATLAS MARCS and PHOENIX), performant spectral synthesis codes (CMF_FLUX,SYNSPEC and TURBOSPECTRUM, SYNSPEC) and atomic linelists from VALD database and specific molecular linelists for cool stars. 3-D spectra medium and high-resolution spectra computed with OPTIM3D and based on STAGGER 3-D RHD model atmospheres are also distributed. Spectral types from O to M, and Wolf-Rayet, are represented for a large set of parameters : Teff, log g, [Fe/H], specific abundances . While most of spectra are only available in the optical spectral range, extension in the UV and IR spectral domains are also made available for some collections. Spectral energy distributions are also available for the hot stars. The database also integrates collections associated to dedicated projects (POPSYCLE, PLATO), with a possibility for restricted access over a definite period of time (it is the case for the PLATO data that are restricted to the consortium use until launch which is due early 2027). POLLUX is a VO-compliant database and is interoperable via the SSAP, ProvSAP and SimDAL IVOA protocols. Through a dedicated webinterface it provides direct visualisation, formated download of individual spectra or of entire collections, and the possibility to convolve parts of each spectra on the fly using the VO-registered SPECONVOL service.