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Data Central's Simple Spectral Access Service

Content

Australian spectroscopic surveys have produced millions of spectra with the help of innovative multi-object spectroscopy instrumentation. Since February 2021, spectra from several surveys are now available via Data Central's new Simple Spectral Access service. In this talk we will give an overview of the service and its Python Django implementation. Particular attention will be given to how the highly heterogeneous formats of the original spectra were regularised with the help of astropy specutils. We provide several client Python scripts that show how the service can be used, e.g. plotting time series spectra, generating preview PDFs of spectra with image cutouts and creating interactive applications to visualise spectra. Lastly, we discuss future plans for the service within the broader set of Data Central services. This may include exploiting the Python implementation of the service as a test bed for new features, e.g. multi-order coverage (MOC) map based spatial and/or temporal queries using MOCPy.

Preferred talk time

Any of the DAL sessions are fine. Timezone: UTC+10 (Sydney)

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