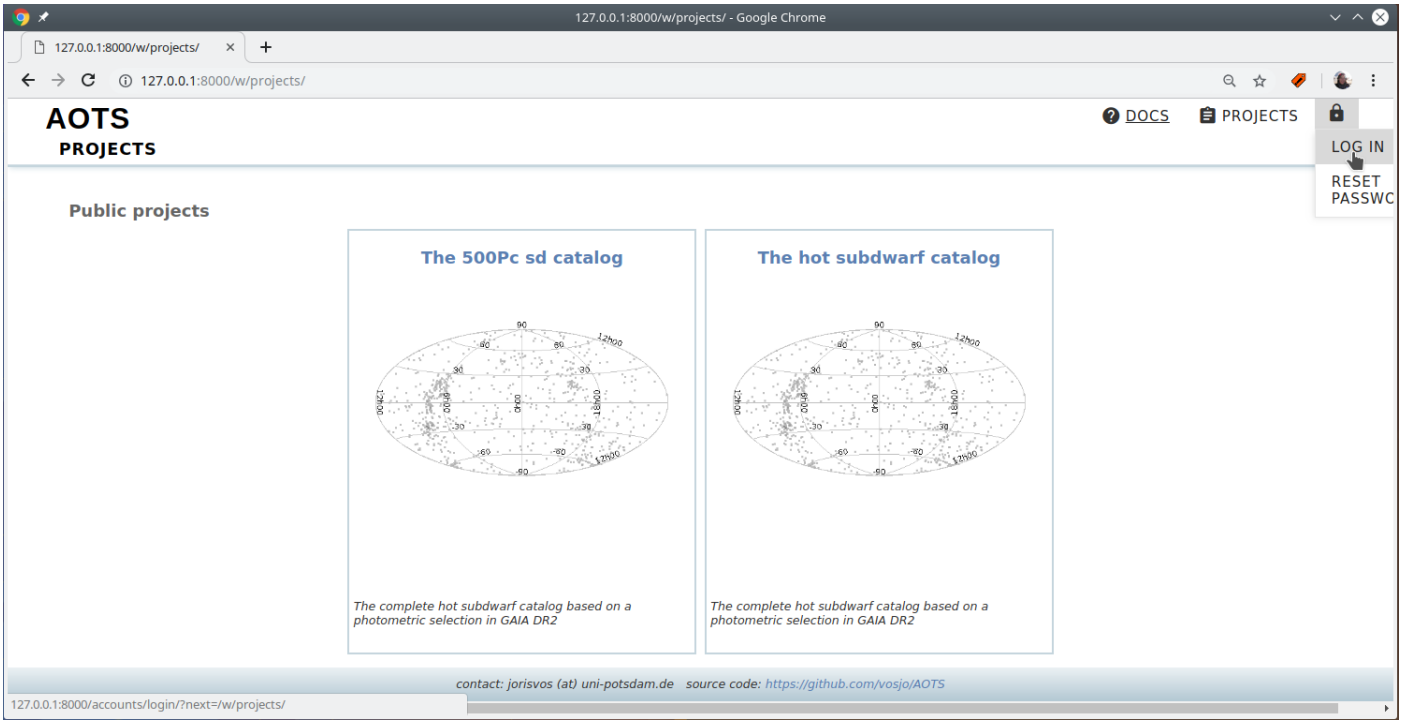
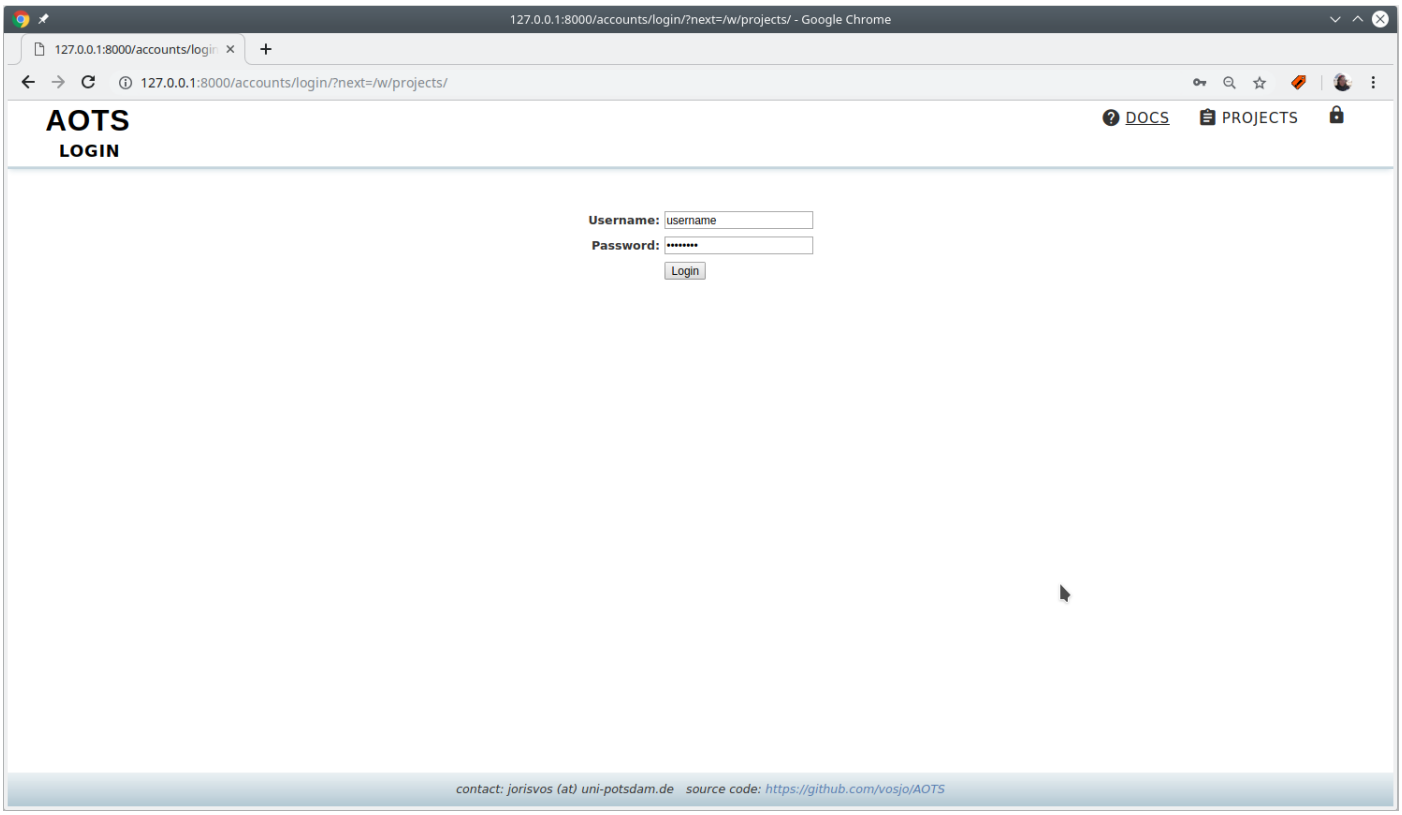
How to add a spectrum in AOTS

1 Login

When navigating to `http://a15.astro.physik.uni-potsdam.de`, you will end on the landing page where the publicly available projects are displayed. From there you can login by hovering over the lock icon in the top right corner and select "Log in".

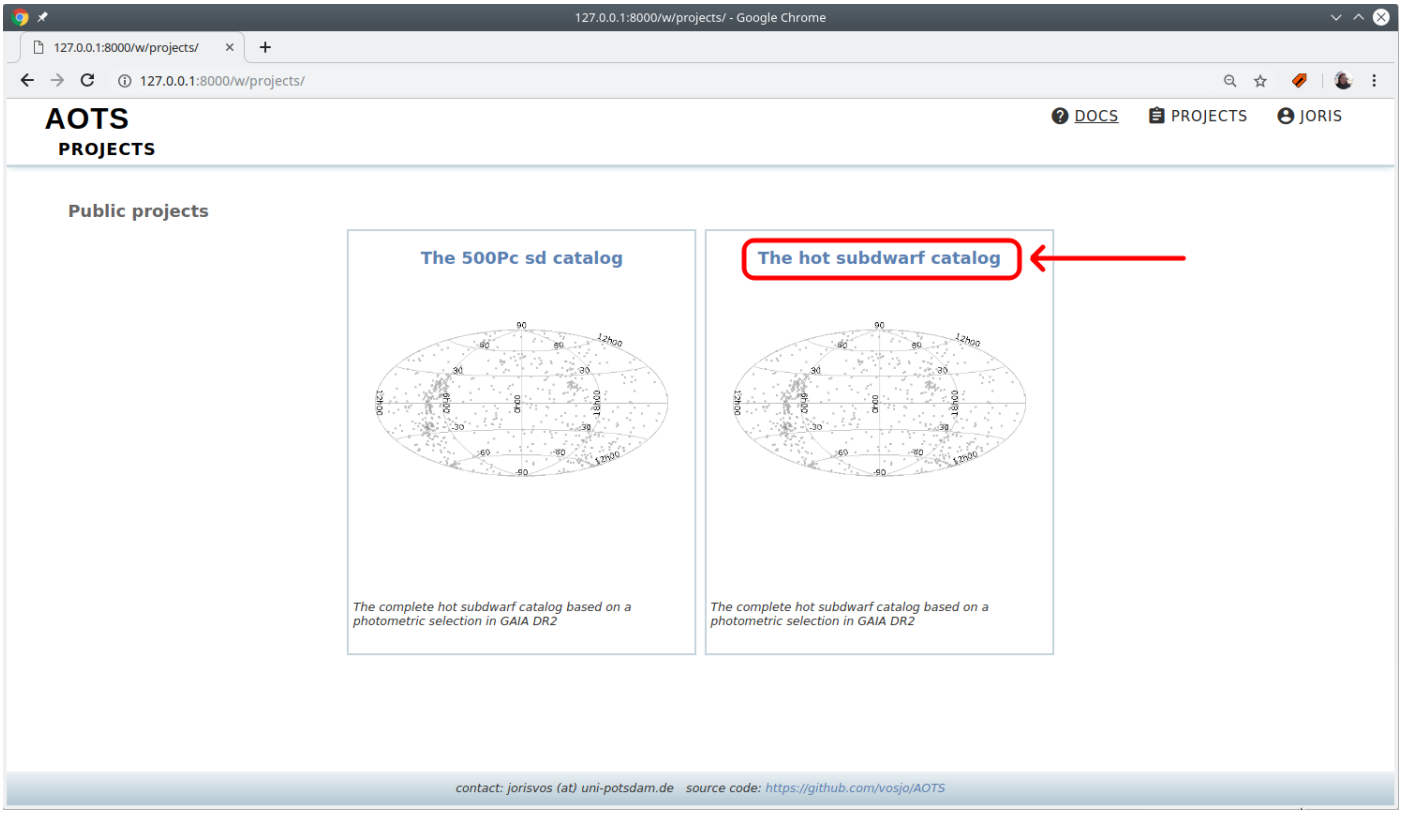


This will bring you to the login page where you can log in with the user name and password you received.

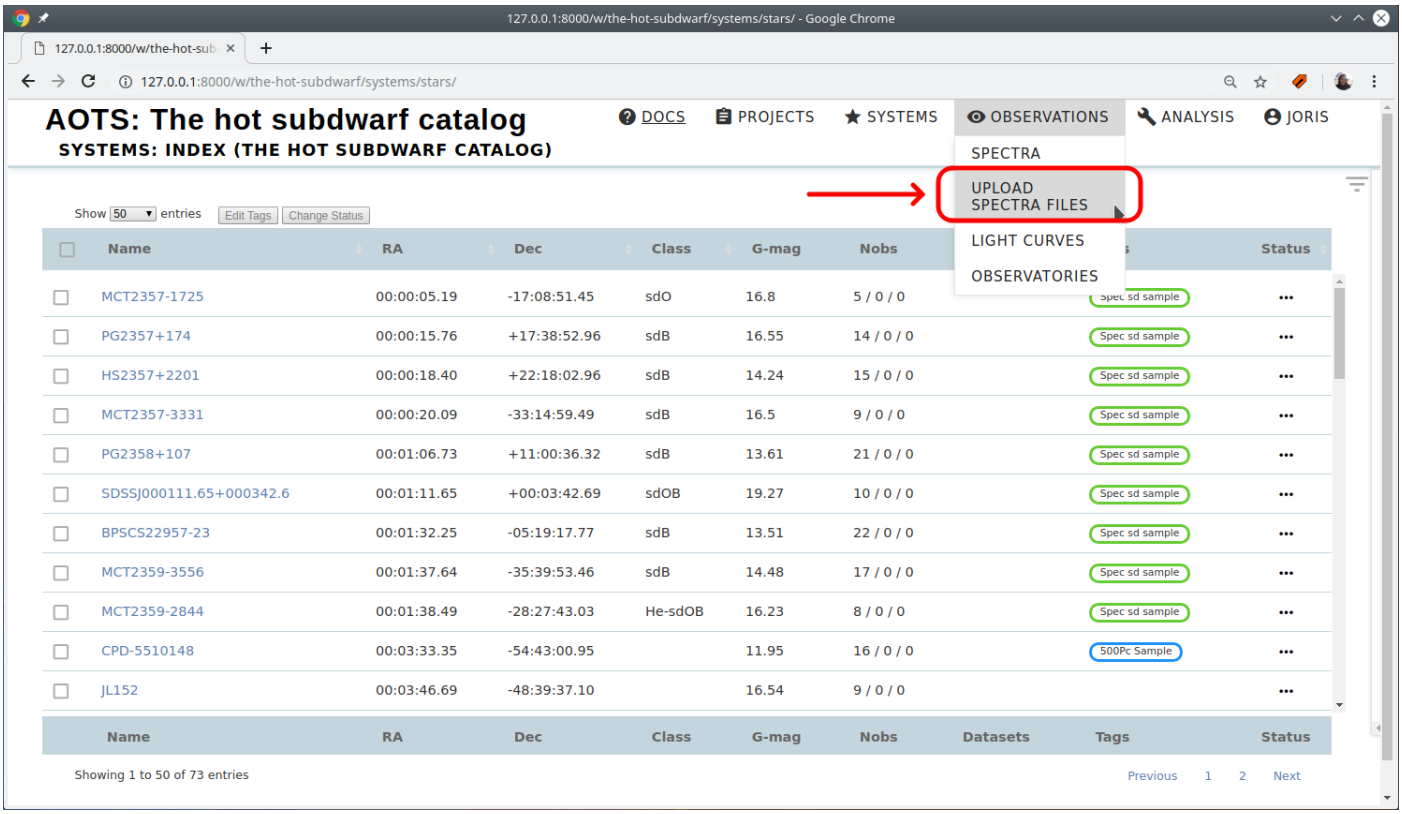


2 Uploading spectra

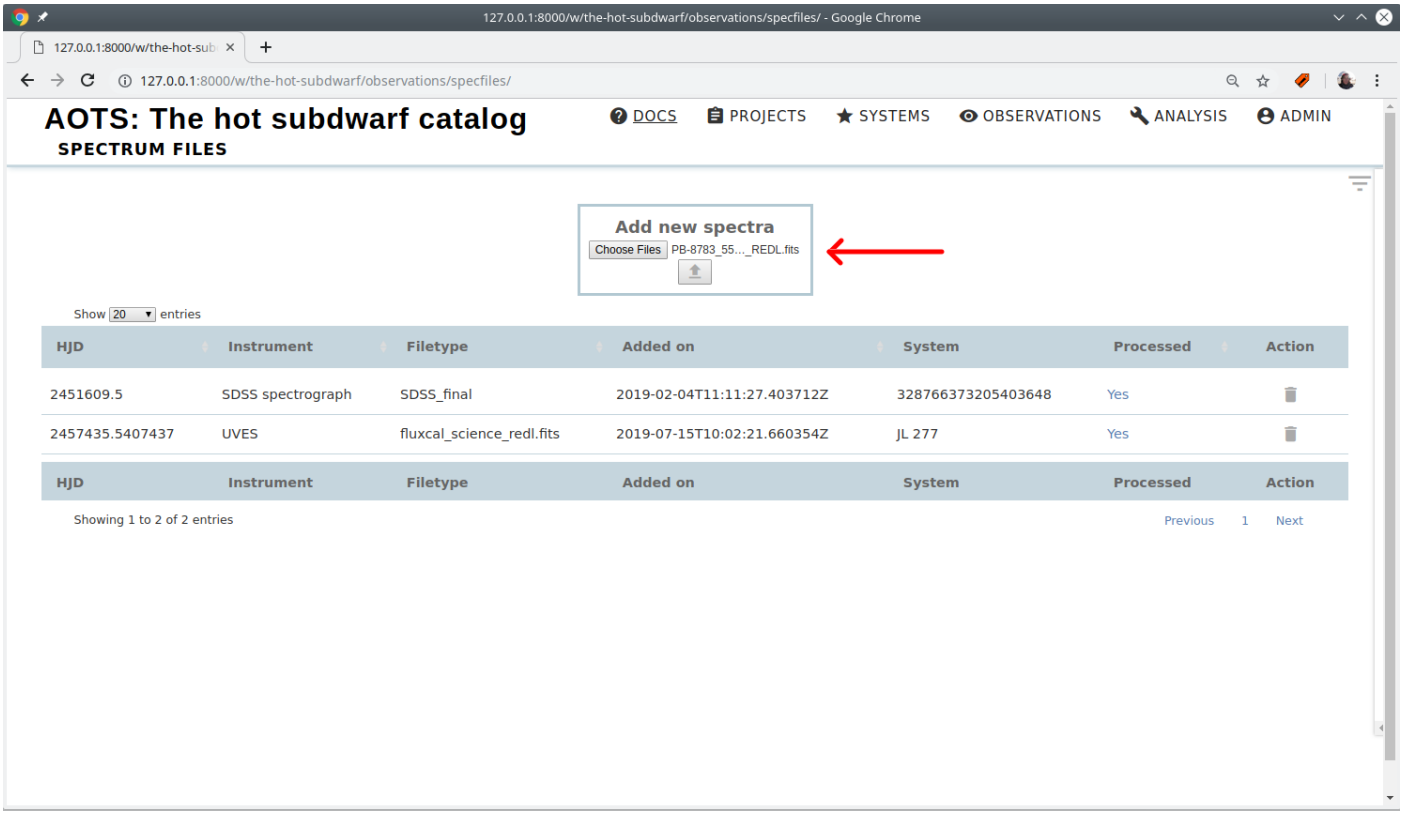
After login you will be redirected to the AOTS main page. Here you can now select the project that you want to work on by clicking on the name of the project. For example we want to add a spectrum to the “The hot subdwarf catalog”.



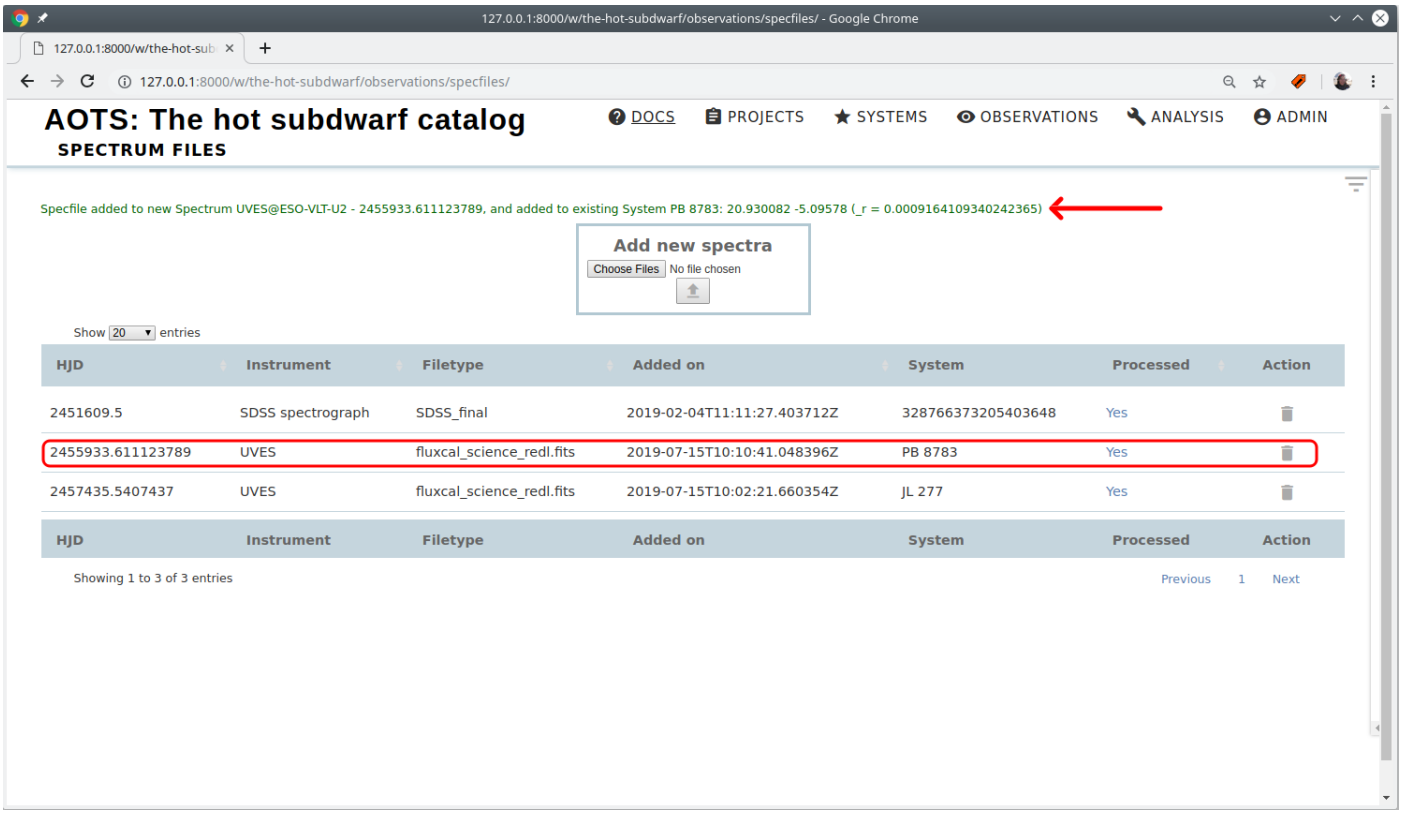
You will end up on the systems index page that lists all the systems that are part of this project. To add a spectrum, navigate to “Observations” → “Upload spectra files” in the top navigation bar:



On the top of this page there is an upload form where you can select one or more spectra in fits format to upload to the database. All necessary data is automatically extracted from the fits header, see below for a list of keywords that are recognized. In the example below a UVES spectrum of PB 8783 is uploaded.

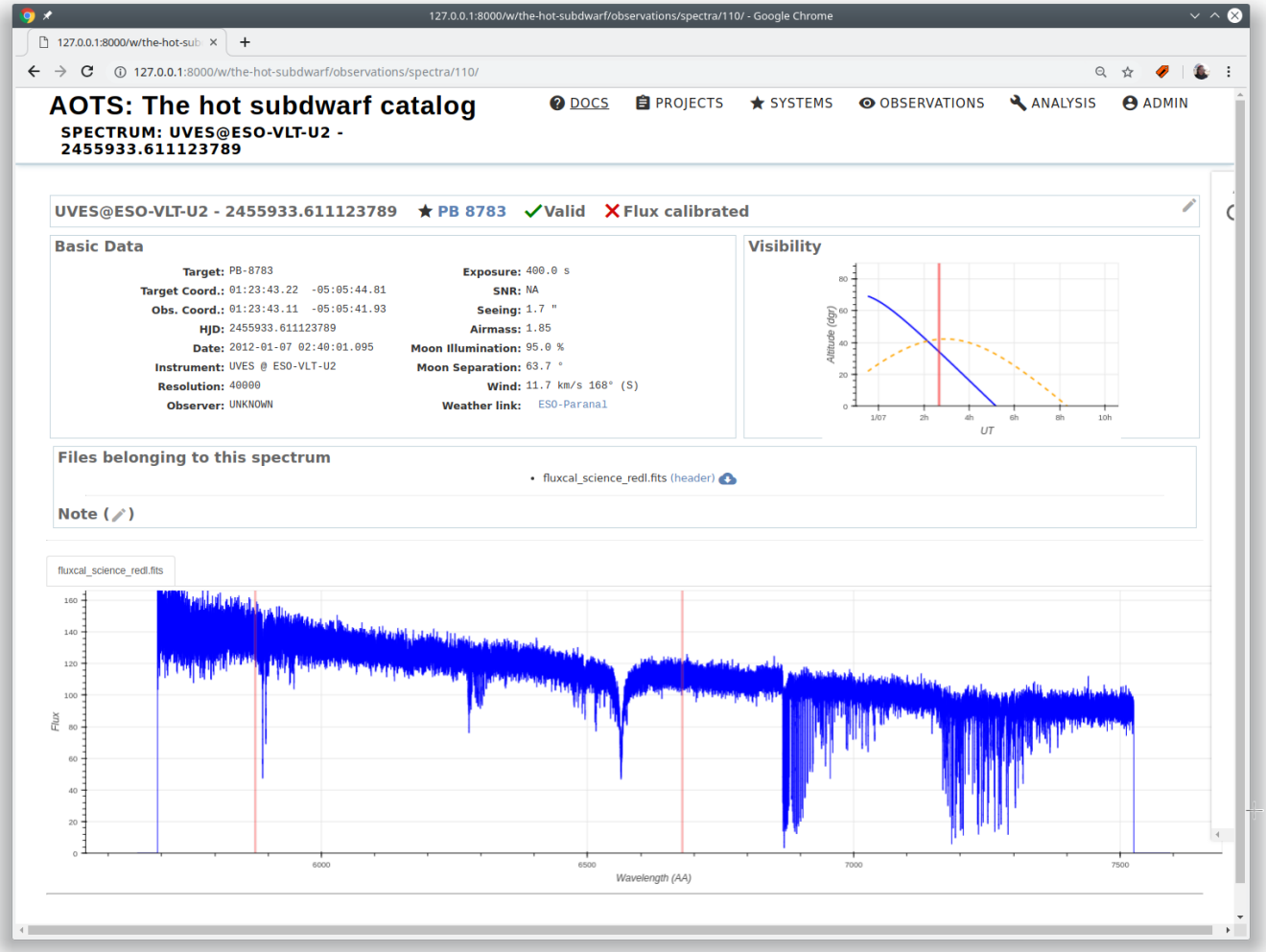


After pressing the upload button the spectra will be processed by AOTS and a confimation notice is displayed at the top of the page to confirm that everything went well. The newly uploaded spectrum will be added to the list of spectra. (You might have to sort on "Added on" to find the spectrum).



If you click on the "Yes" in the processed column, you will be taken to the spectrum details page where you can check

the added spectrum.



3 Recognized header keywords

Multiple types of fits files are recognized by AOTS:

- ESO phase 3
- ESO Reflex fits files
- FEROS fits files from the CERES pipeline
- HERMES fits files
- SDSS fits files
- LAMOST fits files

For all other spectra in fits format the following header keywords are recognized:

Keyword	explanation
HJD, BJD, MJD	time at mid observation
OBJECT	object name
RA	right ascention in decimal degrees or in hours (hexadecimal)
DEC	declination in degrees, decimal of hexadecimal
INSTRUME	instrument
TELESCOP	telescope
EXPTIME	exposure time in seconds
OBSERVER	name of the observer
SPEC_RES	spectral resolution
SNR	signal to noise ratio
SEEING	seeing during the observation