esa

SCIENCE ARCHIVES AND VO TEAM

→VOSPEC TUTORIAL

→A TYPICAL VOSPEC SESSION

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Tutorial Edited and Reformatted By: Olivia Carrington

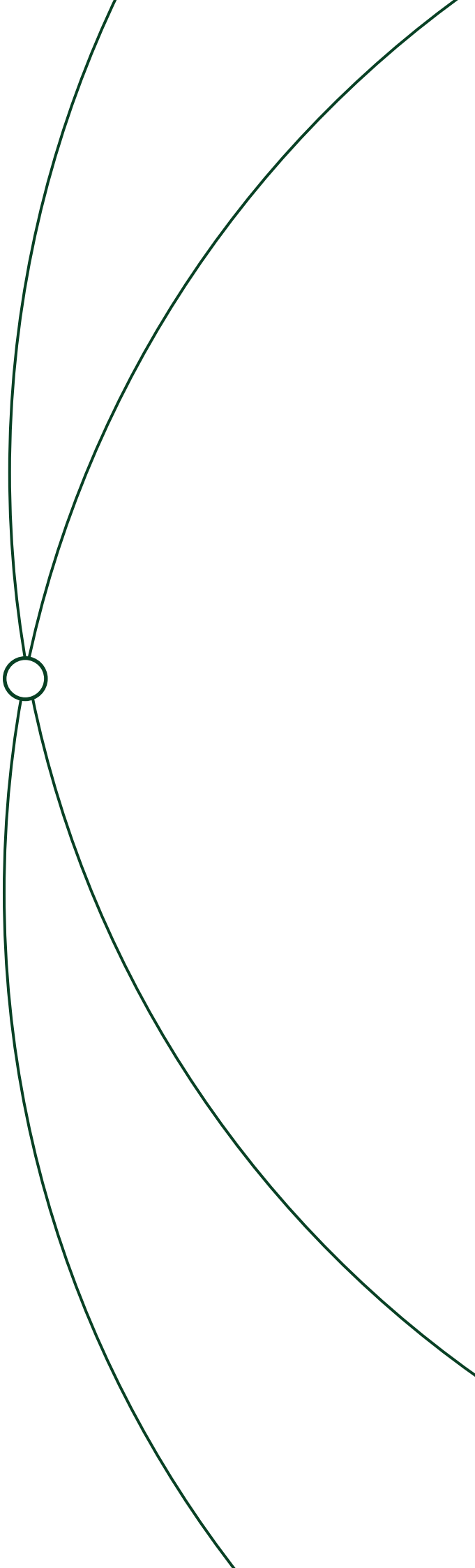Tutorial Design and Layout: Pedro Osuna & Olivia Carrington

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ESAC Science Archives and Virtual Observatory Team

THE TUTORIAL

→VOSPEC TYPICAL SESSION

Below is a step-by-step VOSpec tutorial that follows similar steps to those shown in the version 5 video demo 'VOSpec typical session', but has been updated for the latest VOSpec version 6.6

1. Go to **http://www.sciops.esa.int/index. php?project=SAT&page=vospec** to launch **VOSpec** by clicking the '**Webstart**' link in the downloads section.
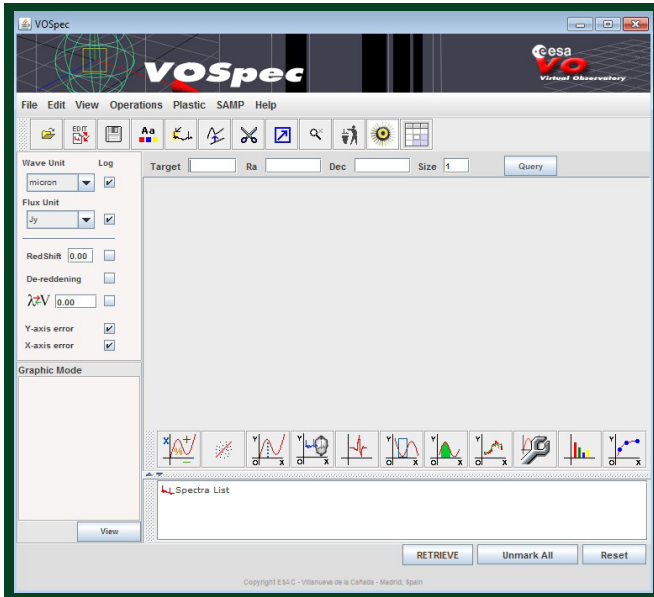
2. Type '**AB Aur**' in the '**Target**' field and '**0.1**' in the '**Size**' field (this is the radius of the search given in degrees).

3. Click '**Query**'. The **Server Selector** window should then open.

4. Select the **Theoretical Spectra Services**, in the left-hand side of the window in the '**Query by Service**' region, by opening up the Theoretical Spectra Services tree.
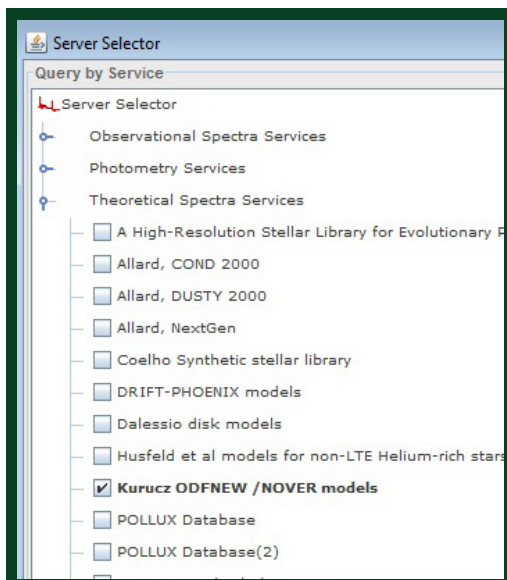

5. Select the '**Kurucz ODFNEW /NOVER models**' (the Kurucz models of stellar atmospheres).

6. Open the '**Kurucz ODFNEW /NOVER models**' tree in the right-hand side of the window in the '**Query by params**' region.

7. Change the Kurucz model parameter values by selecting each one in turn and choosing the values in the '**Insert Param Value**' region.

Change the parameters to the following:

teff_min 9500
teff_max 10000
logg_min 4.00
log_max 4.00
meta_min 0.00
meta_max 0.00.
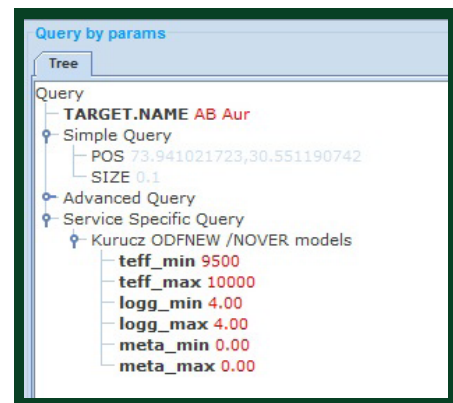
8. Select all the observational services by ticking the box titled '**Select All Observational**', located in the bottom left region, underneath '**Query Outlook**'.
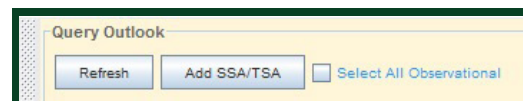
9. Click '**Query**'. The spectra should then be loaded into the '**Spectra List**' region of the main VOSpec window.

10. Double click on the **CDS Multicatalogue Photometry Service** within the Spectra List region. This will open the Tree Organizer window.

11. Within this window select '**Catalogue**' for the Level 1 criterion and '**Distance (degrees)**' for the Level 2 criterion. Click '**Organize**'.

Within the '**Spectra List**' region the CDS Multicatalogue Photometry Service tree is now ordered by '**Catalogue**' as the first branches and '**Distance**' as the second branches.

12. Tick the box to the left of the CDS Multicatalogue Photometry Service to select all the photometry.

13. Select the '**Tree/Table view**' icon on the top right of the main VOSpec window. This displays the Spectra List in table format with metadata ordered into columns.

Note that distance metadata appears for all SSA servers with **RA** and **DEC** parameters. The columns can be sorted by clicking on the column headers and can also be dragged to different positions within the table by holding the left button of your mouse down as you drag the column.

This region can be docked to its own window by left clicking and dragging on the left-hand side (grey, dotted region).

14. Click on the **International Ultraviolet Explorer** tab and click on the column header **Distance (degrees)** to sort the table by distance.

15. Select the following observational spectra: the first two International Ultraviolet Explorer (IUE) spectra beginning with '**swp ...**' and the first two spectra beginning with '**lwr ...**' .

16. Click on the tab '**The ISO Data Archive InterOperability System**' and select the spectra beginning with '**ISO LWS01 ...**' and '**ISO SWS01 ...**' .

17. Click '**RETRIEVE**' in the main VOSpec window. The CDS photometric points and six observational spectra are then displayed.


18. Change the y-axis from **Jy** to **erg/cm2/s** by clicking on the '**Flux Unit**' field to the left of the main VOSpec window.

19. In the Spectra List table, select the **Kurucz ODFNEW/NOVER** models tab and select the three Kurucz models. Click '**RETRIEVE**'.
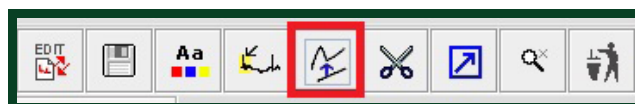
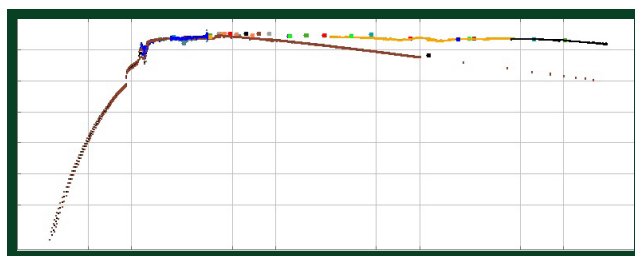The Kurucz models are displayed with the observational spectra.
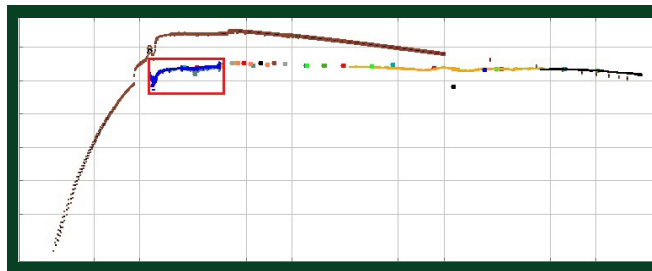
20. Zoom into the UV and optical region, as indicated in red in the image above, by holding down the left button of your mouse as you drag the cursor across the region to be zoomed into.
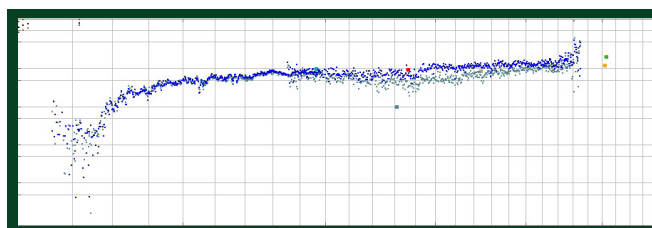
21. Select the Normalization Tool icon and click on the point (flux value) you wish the Kurucz models be normalized to.

The normalized models are then redisplayed with the observational spectra.

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