

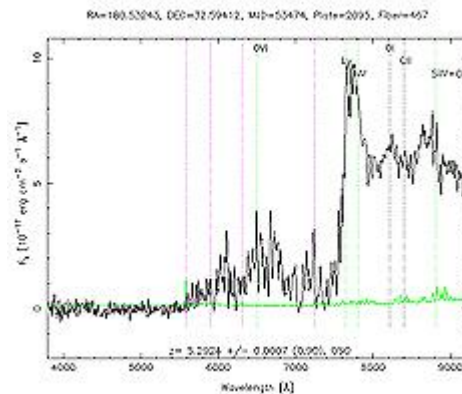
Quasar Spectra

Research Question

Look at the spectra of a number of quasars at different redshifts. How do the spectra change as redshift increases? Make a graph of quasar color as a function of redshift. How do you explain what you see in the graph?

Things you might think about

1. What does it mean to look at quasars at different redshifts?
2. What features do quasar spectra have in common?
3. What lines are most useful for classifying and comparing quasars?
4. How do spectra change at increasing redshift?



The spectrum of the quasar shown on the Research Projects main page

Tools that might help you (all links open in new windows)

[Explore](#): use this tool to get data, including spectra, when you know a quasar's ID number or position

[Search Form](#): use this tool to search for data on many quasars. See the [user's guide](#) to learn how to use the tool.

[Image List](#): use this tool to get thumbnail images of quasars that meet your search criteria

[Plate Browser](#): use this tool to browse through 640 spectra at a time, looking for quasars

Science background (new windows)

[SkyServer quasars project](#)

["Quasars" at Wikipedia](#)

[SDSS press release about distant quasars](#)

[List of SDSS spectral lines](#)

Hints and cautions (new windows)

If you write your own SQL query, be sure to include spectral classes 3 and 4.

Be careful that you correctly identify lines in the spectra – some lines are very close to other lines.