Introduction to SkyServer

SkyServer is the data access site for the Sloan Digital Sky Survey. From this site, you can view all of the SDSS data, using the same tools that professional astronomers use.

Data

You are currently viewing data from the <u>SDSS Data Release 4</u> (link opens in a new window). Data Release 4 has data for 70 million stars, 110 million galaxies, and 60,000 quasars. You can view all their catalog data from this site. Catalog data includes IDs, positions, magnitudes, and many other measured quantities. The site also has preview images and spectra, and FITS images and spectra are available from the <u>Explore</u> tool (new window). All the data come from the <u>SDSS data coverage areas</u> (new window).

Tools

SkyServer includes a number of <u>tools</u> to view SDSS data. You can browse through the data with the <u>Navigate</u> tool, study a single object in detail with the <u>Explore</u> tool, and search for data with the <u>Search Form</u> tool, or with the <u>SQL Search</u> tool (all links open in the same new window).

Help

SkyServer has an extensive help section, covering all the ways to access the data. Good places to start are the <u>Frequently Asked Questions</u> and <u>Cooking with Sloan</u>, a series of guides showing you how to accomplish common astronomical tasks using SkyServer tools and SDSS data. The site also offers an <u>SQL Tutorial</u> to help search for objects using SQL.

If you see these symbols anywhere on the site: and that means that there is a printable version of that page or guide available as a Flash or PDF file.

If you can't find your answer anywhere on the site, <u>contact the SDSS Help Desk</u> (link opens in a new window).

Projects

SkyServer is an excellent resource for educators, including K-12 and college classroom teachers. SDSS data can be a rich source of hands-on, inquiry-based activities for learning science.

The SkyServer <u>Projects</u> include many activities that teach a single science topic, such as the expanding universe or stellar spectra, using SDSS data. See the <u>project teacher guides</u> for more information on how to use SkyServer projects in your classroom or lab section.

We encourage instructors to create their own lesson plans using SkyServer, and to share them with us. We maintain a list of <u>teacher-created SDSS activities</u> on the site, and we would love to add yours!

We recognize the importance of community for successful teaching, and we try to create a sense of community online. We maintain a <u>mailing list</u> with updates on new activities, and a <u>Yahoo group</u> (link opens in a new window) to allow you to talk with your colleagues about SDSS-based activities.

If you have questions about SkyServer projects, please contact us!