

# The Milky Way

## Research Question

How are stars in the Milky Way's disk different from stars far away from the disk?

## Things you might think about

1. Where in the sky will you look?
2. What properties of stars are most meaningful to compare?
3. Where do you expect the most stars? The brightest? The reddest? How would you test these ideas?
4. What properties of a star might you measure?
5. What do you expect the spectra of stars to look like?



Leo I, a small Milky Way companion galaxy discovered by the SDSS

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

[Navigate](#): use this tool to get data on single stars

[Sky Map](#) (globe on lower right of [Navigate](#)): use this tool to find where in the sky the SDSS has looked. The brown stripe is the plane of the Milky Way. If the tool doesn't work for you, see the diagram of [the SDSS's sky coverage](#).

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

## Science background (new windows)

[SkyServer galaxies project](#)

["Milky Way" Encarta article](#)

["Milky Way" at Students for the Exploration and Development of Space](#)

[List of SDSS spectral lines](#)

## **Hints and cautions (new windows)**

If you look at spectra, study the line labels carefully. Not all of them are element names!

You can use SQL [aggregate functions](#) (like avg, min, max) to do your analysis.