

SDSS - SLOAN DIGITAL SKY SURVEY

<http://cas.sdss.org/dr7/en/>

“About the SDSS” for some general info

....“Telescopes” <http://classic.sdss.org/dr7/access/index.html#CAS> info about tel.

“SDSS Data release” look at the info on the sky

“Get images” and “Visual Tools” give a look..

“Search” to extract data...several ways “Spectro Query”

Also from <http://classic.sdss.org/dr7/access/index.html>

EXAMPLE

Try with typical and typical, cone, coordinate of ABELL 1240

11 23 32.1 +43 06 32 or 170.8836+43.1088, 5arcmin, submit request

You obtain your result and the form of “SQL”, use in the “SQL” search.

You can give a look at the spectra

“Imaging Query”

look at the many imaging parameters, make the same as before...you can ask also for many more data than 50...

require CSV data....you will save a file!

HOMEWORK

IN THE PLOT, PLEASE USE DIFFERENT COLOR/SYMBOLS FOR POINTS INDICATING GALAXIES (green/squares), STAR (yellow/cross), CLUSTER GALAXIES (red/circles), NON CLUSTER GALS (blue/triangles).

take one cluster of table 2 of Girardi+2014,A&A,565,A115 (ADS)

take its center (NED)

SDSS imaging: select galaxies (see the option extended objs at the end), 10 arcmin from the cluster center, extract at least name,radec,dered b r and i mag

make the same for stars...

plot gals and stars in color-mag plots (b-r vs r, r-i vs i) and comment...

SDSS spectro: select only galaxies (same constrains and data) BUT only those you think are belonging to the cluster (i.e. $V \pm 2000$ km/s, look at the mean z in NED $z \pm 2000/c$). Then select only galaxies outside $z \pm 5000/c$.

Plot these on the same plots of before and comment.