

GRIDView: Analysis and Cataloging of Atomic Spectra for Galaxies

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Abstract. Data discovery in astrophysics has become increasingly dependent on rapid access to three dimensional data, catalogs, and spectral archives. Visualization of large data cubes is of vital importance for the success of large spectral line surveys in astrophysics. Extracting information from spectral lines for galaxies yields information on distances, rotations, dynamics, and kinematics that are important to galaxy luminosity and mass models. I will show examples of data visualization utilizing the *GRIDView* software package, which allows users to manipulate spectral line data cubes. Currently the package is mostly used for analyzing and cataloging atomic spectra of galaxies. The tools also incorporate Virtual Observatory client applications for overlaying database information in real time while moving through redshift space. The software has been used with great success for spectral line and continuum data sets obtained from large radio survey collaborations. More information about the software package can be found at: <http://www.cv.nrao.edu/~bkent/computing/gridview.html>