

PRACTICALS in linux environment at the informatics laboratory, notes in moodle lab21

*This year the long-term topic related to the final exam is: 1. to use ds9 to make an RGB image (take the three fits files from <http://chandra.harvard.edu/photo/openFITS/> or other website, explain the work and the scientific object in relation to the image RG). 2. Alternatively, reduce and give redshift for one of the spectrum used with IRAF during the lectures - ask to the teacher for which to reduce.*

## **FITS format of images and DS9 visualization**

Astronomical images and their FITS format: HDU, Header, Data Unit. Array and operations with arrays. WCS. CCD (a short introduction, Chromey p.236). The use of the DS9 tool for visualization and treatment + Practical/Homework. See Moodle.

## **CCD reduction of images and Spectra calibration and IRAF tool**

IRAF tool and its application to images. Basics of CCD reduction of images (bias, flat). Spectra calibration: trace and extract the spectrum, identification of arc lines, calibration, redshift measure.