GAIA BASICS & ASTROMETRY

GAIA - Graphical Astronomy and Image Analysis Tool Based on Skycat at ESO

Starlink Cookbook 17.1 A.C. Davenhall & P.W. Draper

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***TEXT is Gaia cookbook in http://star-www.dur.ac.uk/~pdraper/gaia/sc17.htx/sc17.html
Retrieve Hardcopy   file.pdf   or use pdf given by your teacher

use other files in gaiaFiles e.g.

***other fits ngc1275hri.fits from* http://www.starlink.ac.uk/star/examples/sc17/

In your .bashrc or .bashrcsalva you must have

export EXTRACTOR_DIR=/scisoft/share/star/bin/extractor

setenv PHOTOM_DIR=/scisoft/share/star/bin/photom

setenv ESP_DIR=/scisoft/share/star/bin/esp

setenv CONVERT_DIR=/scisoft/share/star/bin/convert

setenv HDSTOOLS_DIR=/scisoft/share/star/bin/hdstools

START WITH

%mkdir gaia

%cd gaia

%/opt/scisoft/bin/gaia &

OR %gaia in the case you have created an alias in your .bashrcsalva

INSIDE GAIA

image-analysis   demonstration → you will obtain fits

add the fits and files given by the teacher, e.g.

Look at the Help in the serveral windows: they are very useful!

You can print them openn the html files in /scisoft/share/star/help/gaia

USE GAIA TO VISUALIZE IMAGES AND RETRIEVE IMAGES/CATALOGS FROM WEB

READ/USE   sc17 cookbook

Points 8 9 10 USE ngc1275.fits,

Point 11 USE+ ngc1275hri.fits

In particular View – pick object: very useful to determine obj center, it also gives FWHM x and y to understand if obj is round or not (star/gal classif.)

ASTROMETRY

Point 12 USE+ ngc1275-nowcs.fits (Look at sc17Astrometry.pdf)

Examples https://github.com/Starlink/starlink/tree/master/docs/sc/017/examples

HOMEWORK

Astrometry image   EFOSC.2000-11-20T06:43:42.058.fits taken from ESO archive.

Tell me the coordinates of the thre objs in EFOSCex.jpg, send me the results of your fit-test (rms values and so on) and …possibly what is the subject of the observation.