

Visualization and manipulation tools for images

Sara Regibo

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1 Visualization

- starting-up HIPE and making a SimpleImage
- explaining that a SimpleImage is a java object in which you can load an image (going from a jpeg- to a fits-file; and how to do that) and on which all image analysis tasks work
- right-clicking on the image and thus opening the image explorer (i.e. Display)
- drawing the attention to the image panner (overview of the image) and the image zoom (zoomed-in region around the current mouse position)
- explaining what the numbers at the bottom of the explorer are : pixel coordinates, intensity and sky coordinates at the current mouse position
- showing how to zoom-in, zoom-out and zoom-to-fit, using the button in the status bar
- showing how you can adapt the colors (f.i. logarithmic intensity scale) by selecting the 'Edit colors' menu when you right-click on the image
- showing how to adapt the cut levels of the image

2 Manipulation

- profile plotting
- aperture photometry - both with an annular and a rectangular sky aperture
- image arithmetics : +, -, *, /, %, absolute values, rounding, ceiling, sqrt, square, power, log, log10, logN, exp, exp10, expN (it is best to show a few options and then just tell what other arithmetics there is available)
- histograms - either of a whole image or of a region of interest bounded by an ellipse, a circle, a rectangle or a polygon
- contour plotting (+ drag and drop)
- mosaicking (using Spitzer data)