Generating Mosaics
or
Does a sub-pixel rebinning help?

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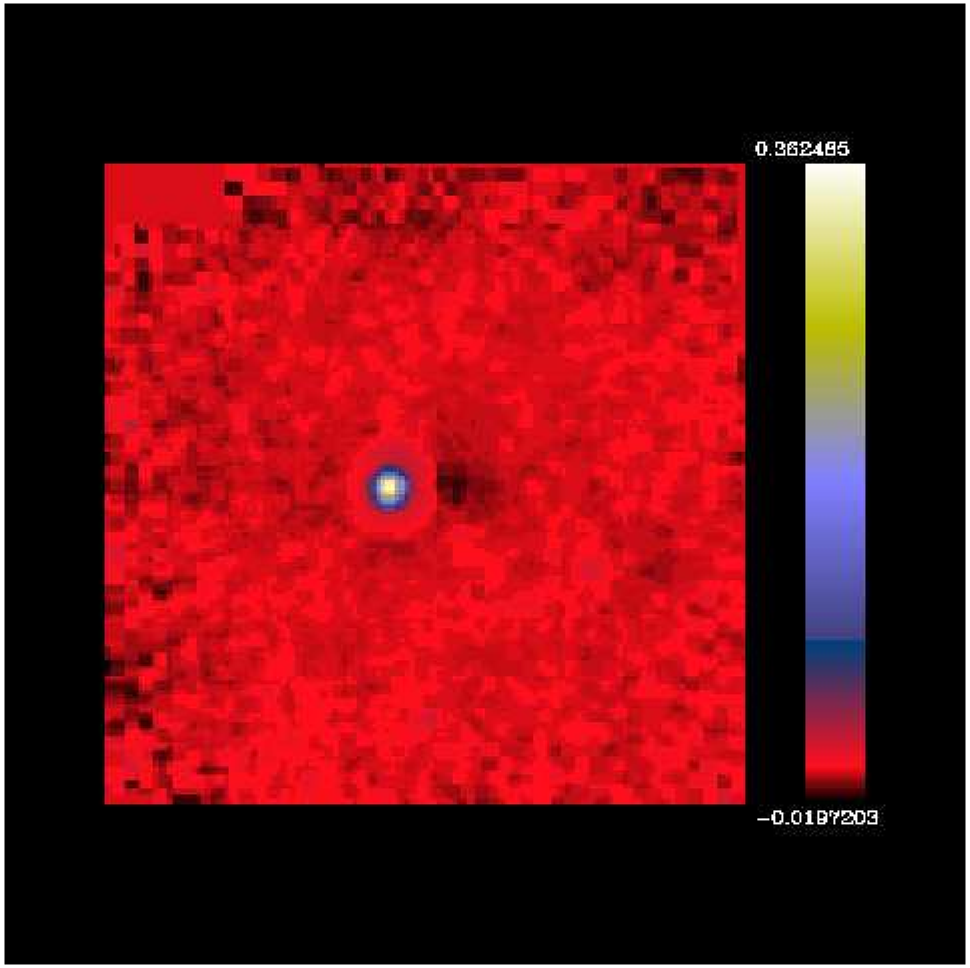
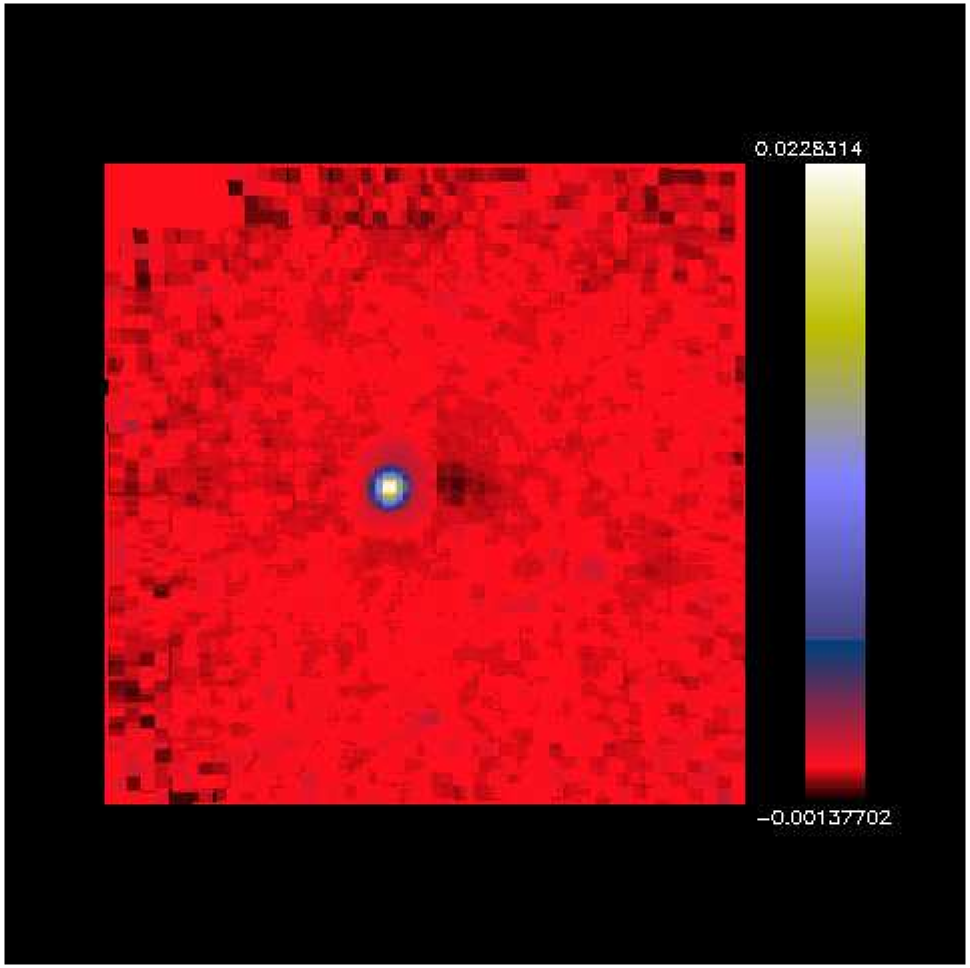
Weak Point Source, 4*4 raster with 3" PFOV

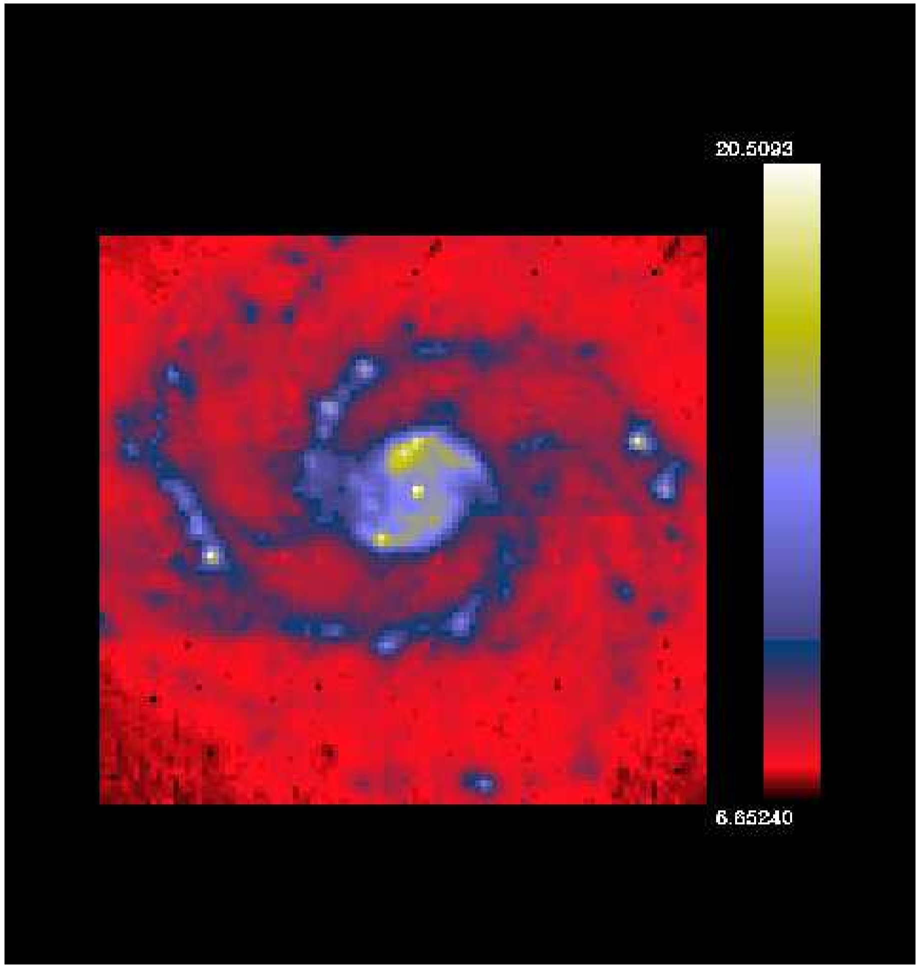


3" mosaic pixels

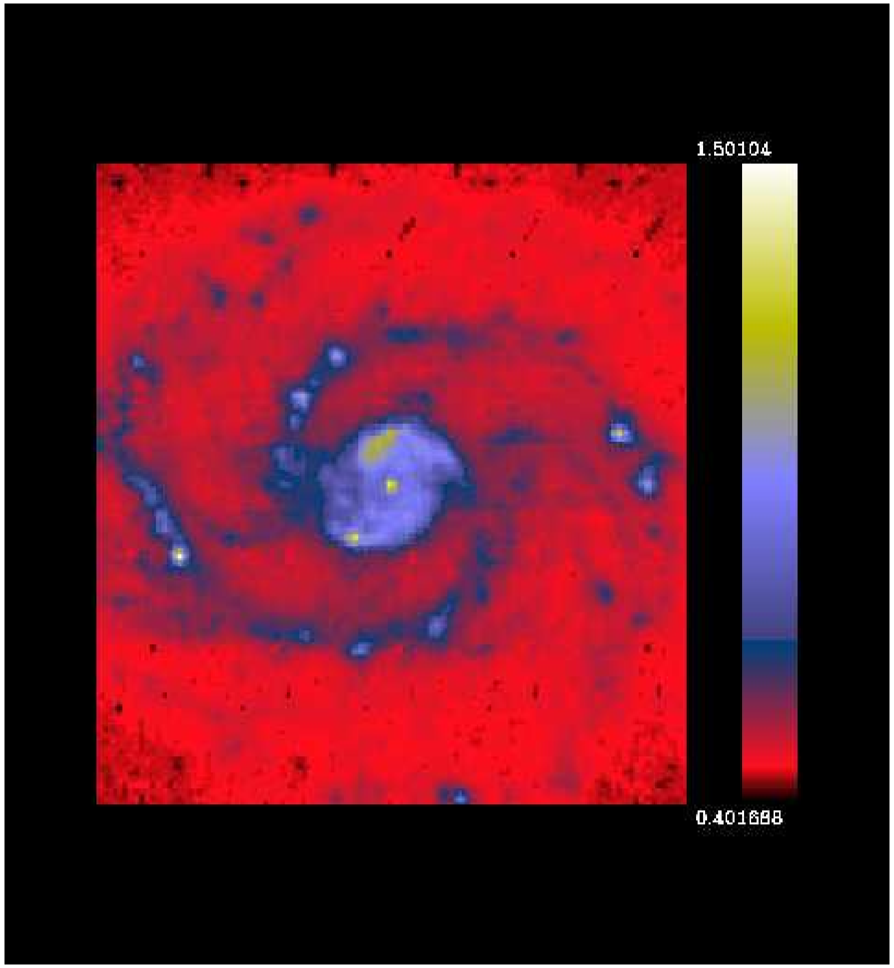


0.75" mosaic pixels

Whirlpool Galaxy, 10*10 raster with 3"PFOV (cut of the central part)

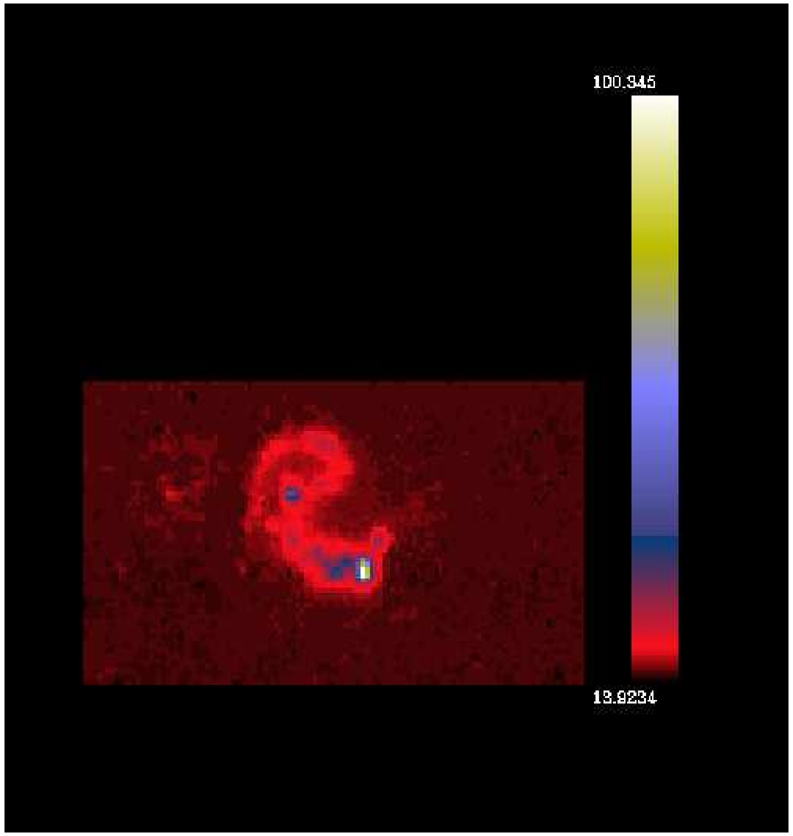


3" mosaic pixels

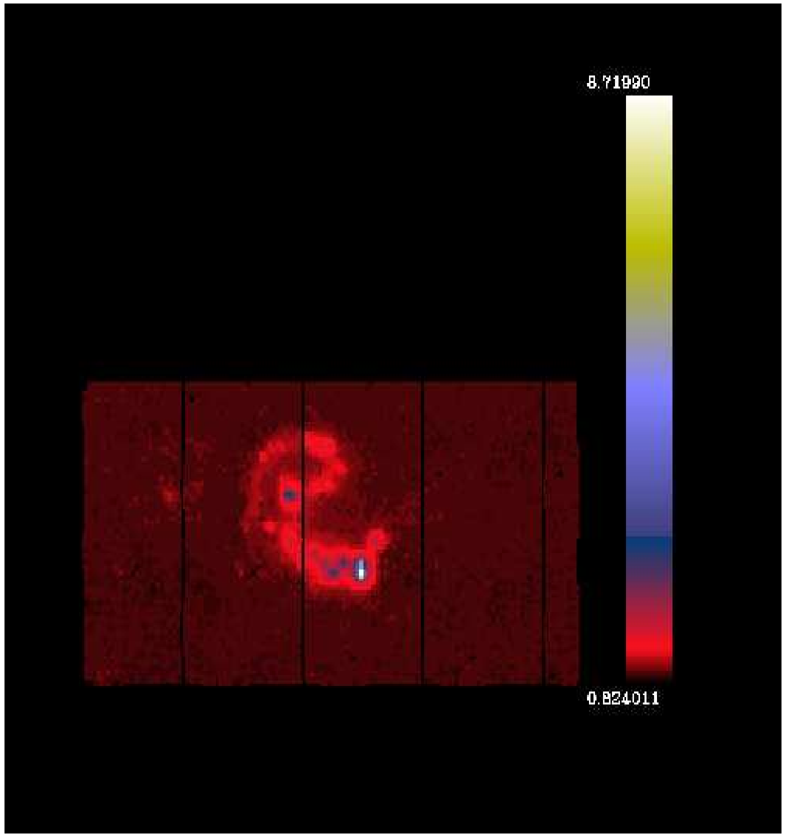


0.75" mosaic pixels

Antennae Galaxy, 4*2 raster with 3" PFOV



3" mosaic pixels



0.75" mosaic pixels

Conclusions:

* using a smaller pixel size in the mosaic can improve the optical appearance in some cases
* re-binning will be advantageous in case of jitter-corrected images
* care has to be taken of the induced correlated noise
* more advanced algorithms are necessary to improve the quality of the mosaic