

# Rates Analysis Status

- This is just a short status update on where I am with the rates analysis. Most of it is on the rates Web page.

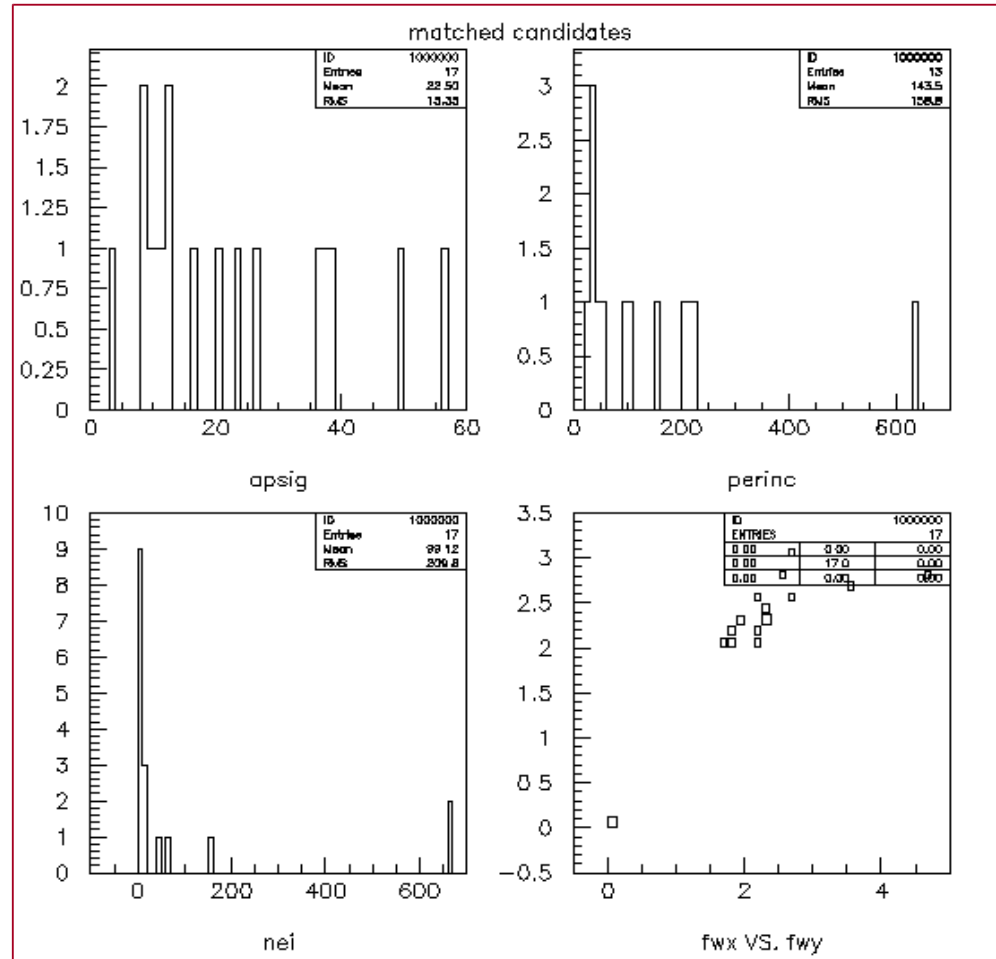
<http://supernova.lbl.gov/~natalia/Rates/rates.html>

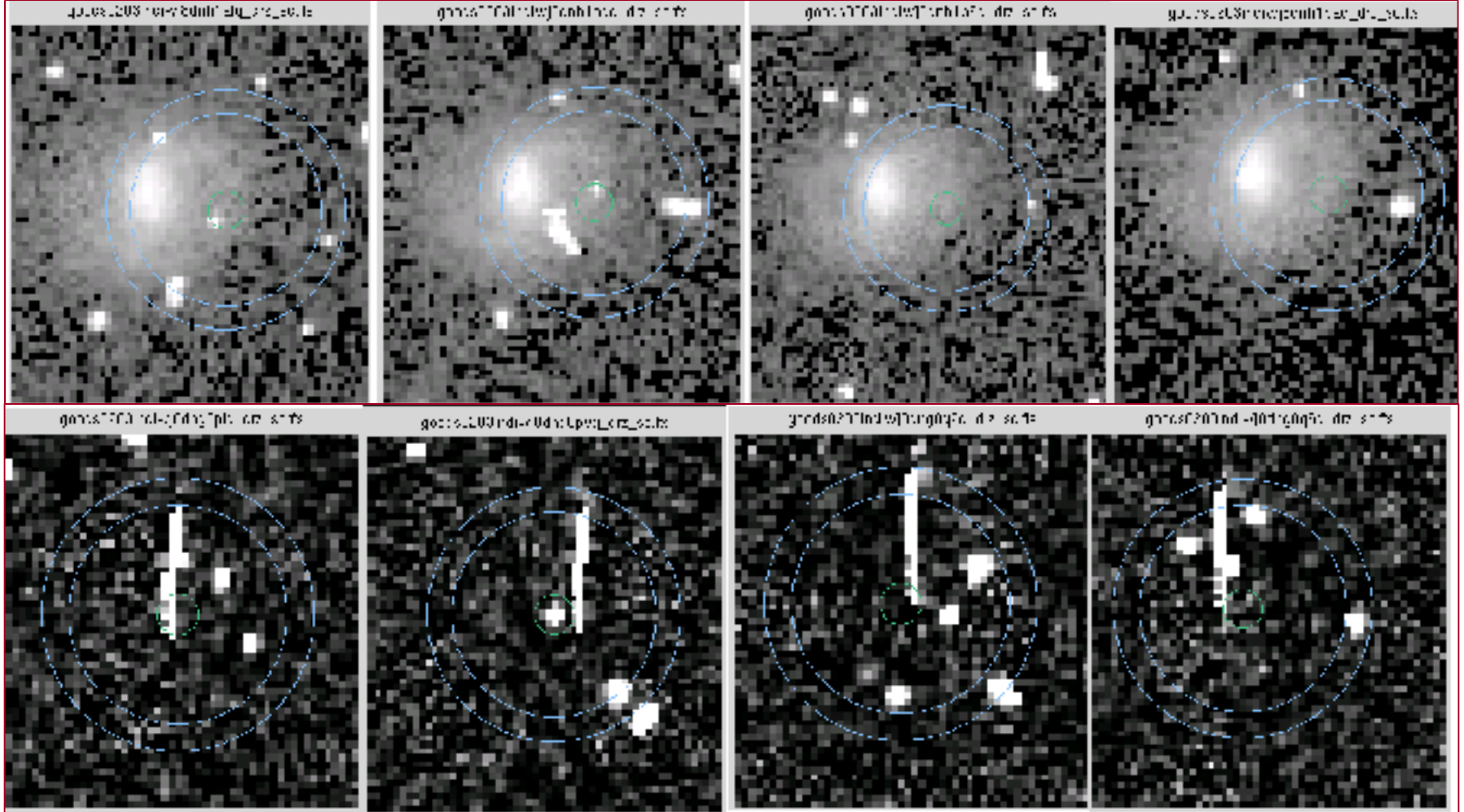
- Going down the to-do list:
- Data reprocessing:
  - New 200 GB disk has been installed, transferring GOODS data from the HST archive
  - In the meantime, got an account and disk access on PDSF, made sure data processing scripts work there

Adam's supernovae identified by us in the GOODS North sample

Scanning:

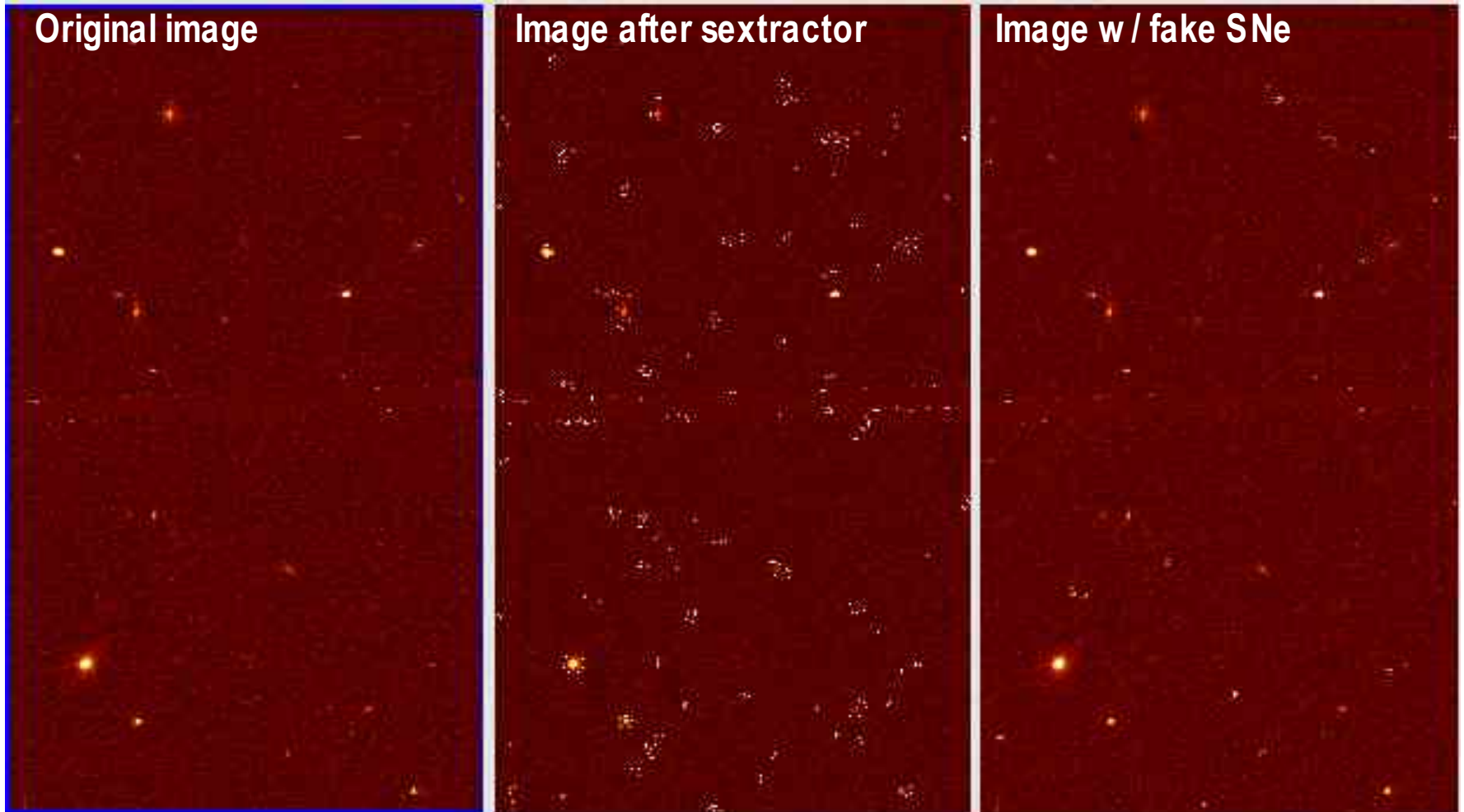
- Will do both automatic and manual scanning
- For automatic scanning, will use the following cuts:
  - $S/N > 7$
  - Percent increase  $> 5$  (this is probably too low)
  - Automated cosmic rejection (see next slide)





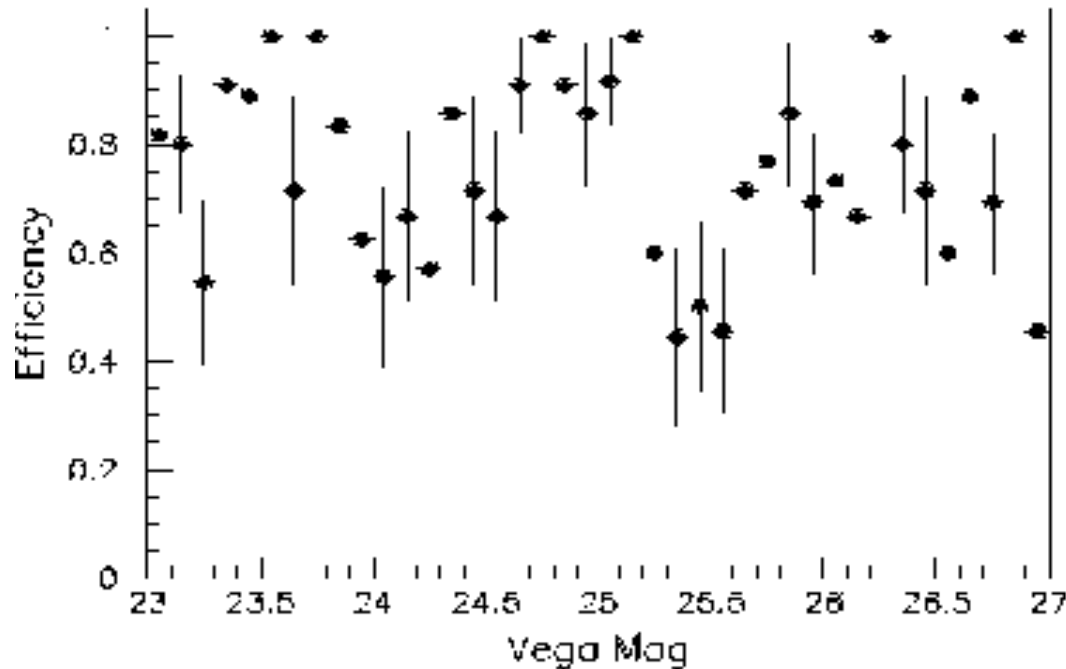
- The idea is to compare the flux in the 4 individual dithers
- However, this is not completely trivial: even if the four dithers have inconsistent fluxes doesn't necessarily mean it's a CR, because it could be a real object with just one dither hit by a CR.
  - I'd have to implement some kind of comparison of the flux with the sky, then, and if there is at least one image where flux = sky within errors, declare it a CR

- SN detection efficiency:
  - New (Java) code for adding fake supernovae to images mostly ready
  - Need to better understand the optimal radius for selecting fake SN



- SN detection efficiency (cont):

- Was able to load the new images into the database, create subtractions, and compare the supernovae found with the ones added
- This plot is for just one image – just testing the tools



- Need to clarify the rotation conventions in images as they are displayed in ds9 and in imview