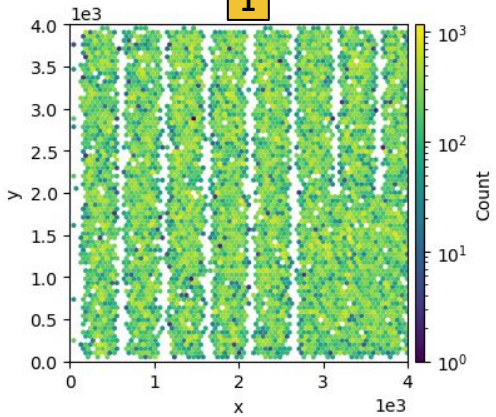
Here we are looking at Auxtel star-flats after single-frame and coadd processing with FGCM included (PREOPS-3780).

1) the CCD is well saturated with star sources observed at least twice
2) the overall variability is more or less as expected with an `SNR > 50`
3) the variability is greater for dimmer objects but seems symmetric
4) **¡¡** there is a clear spatial structure in the variability **!!**

1



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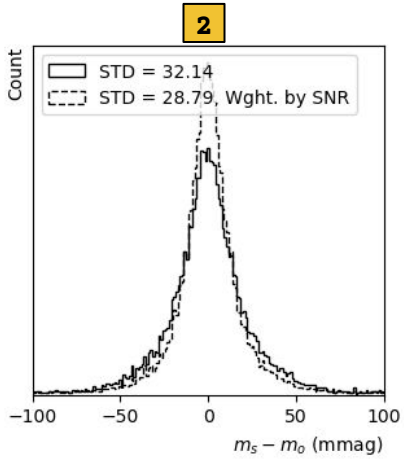

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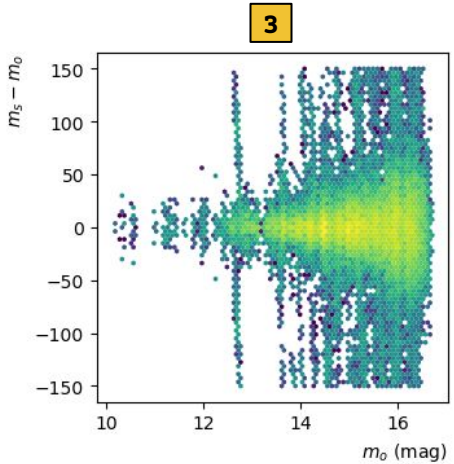

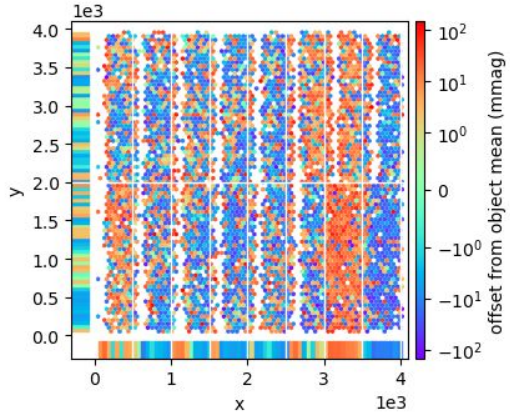

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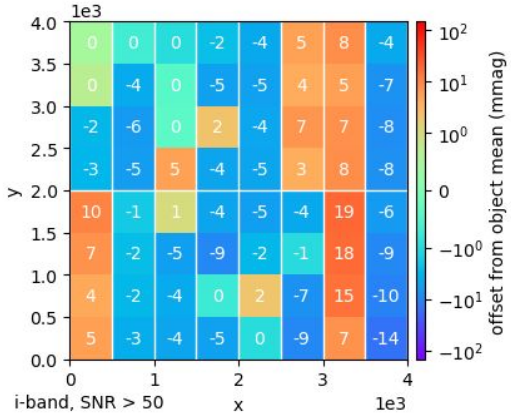
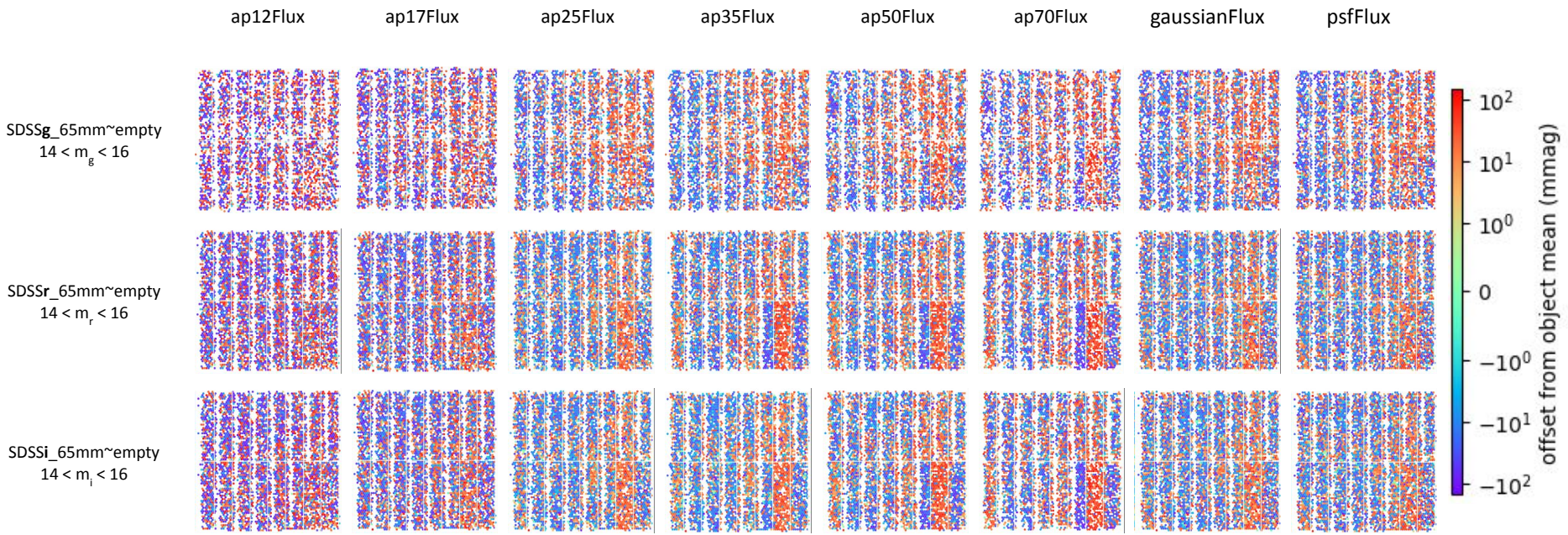
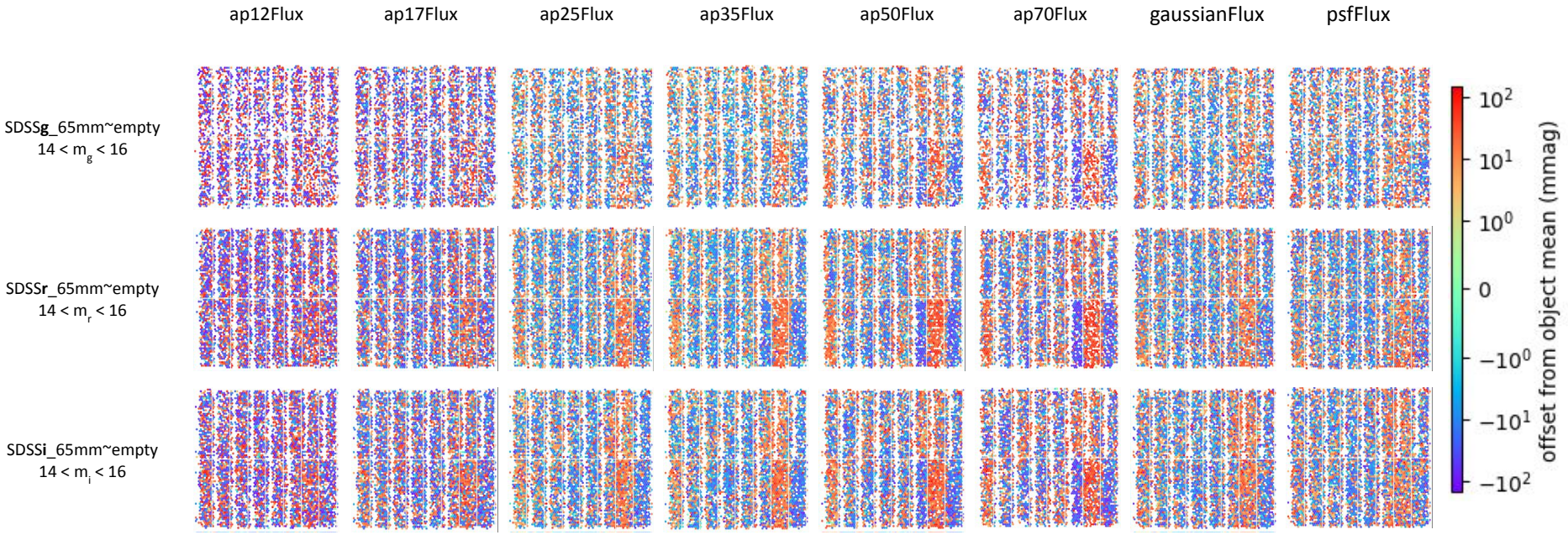
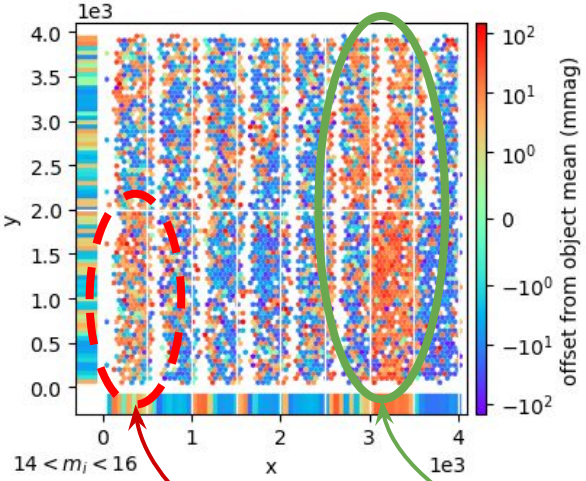


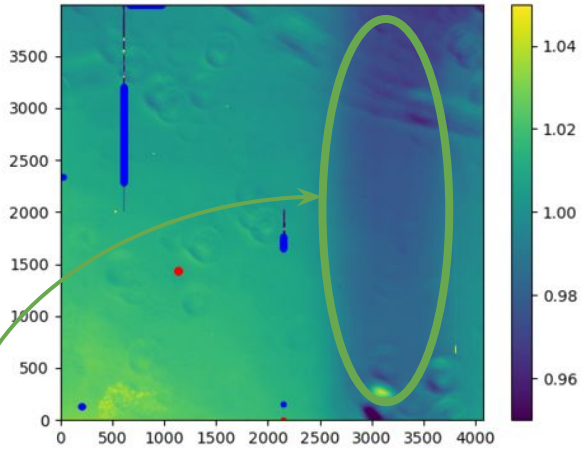
LATISS/runs/AUXTEL_DRP_IMAGING_2023-08ABC-07AB-05AB/w_2023_35/**PREOPS-3726** in /repo/embargo (**without** FGCM)



LATISS/runs/AUXTEL_DRP_IMAGING_2023-09A-08ABC-07AB-05AB/d_2023_09_25/**PREOPS-3780** in /repo/embargo (**with** FGCM)





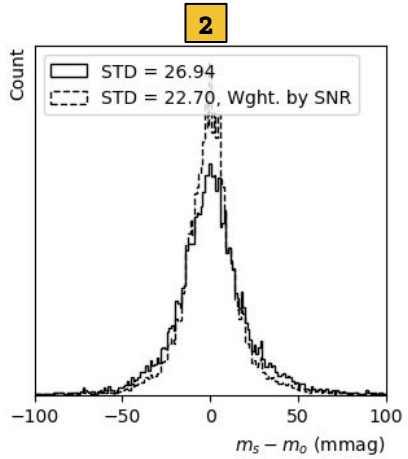
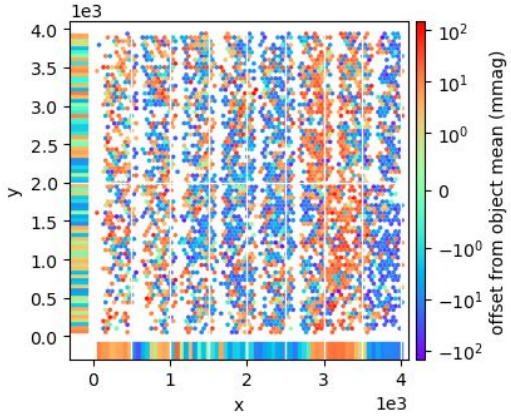
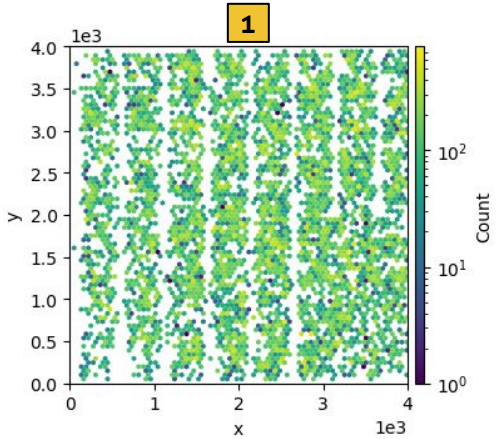
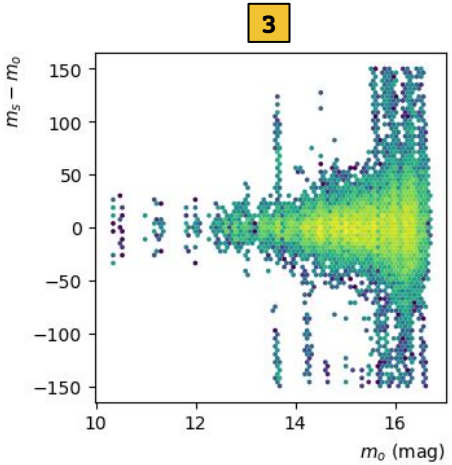
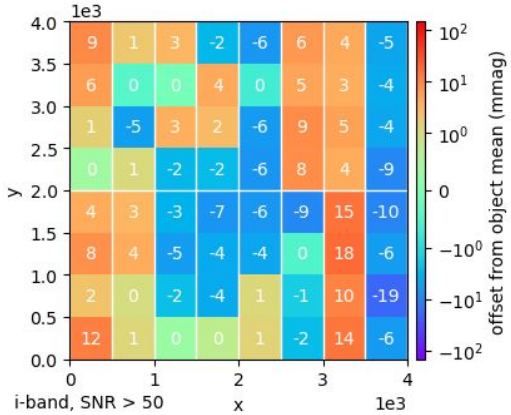


Maybe part of the structure is coming from the flats.

- on the right is a ratio of `new:old` flats made by Eli Rykoff (slack)
- the vertical band apparently has been present on many flats for some time now and is still unexplained and it may be the cause of the similar star-flat band
- or it could be coincidence since there are other structures in the star-flat which are not explained by the flat

Other *possibilities* (slack):

- local background subtraction in FGCM is not right due to incorrect PSF sizes (should be fixed with DM-40955)

AH! But Huan Lin just finished [PREOPS-4553](). (Good timing)

1) the CCD is less saturated for some reason
2) the overall variability has shown improvement
3) the variability in the [14,16] mag range shows great improvement
4) the spatial structure remains but is modified