

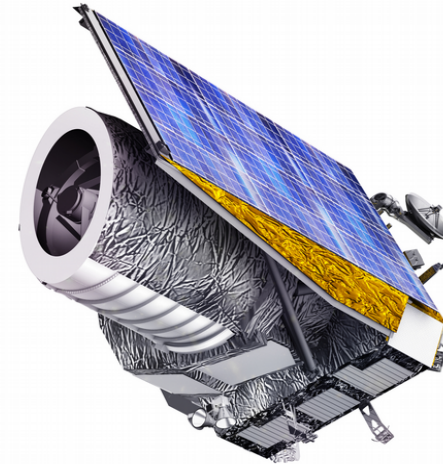
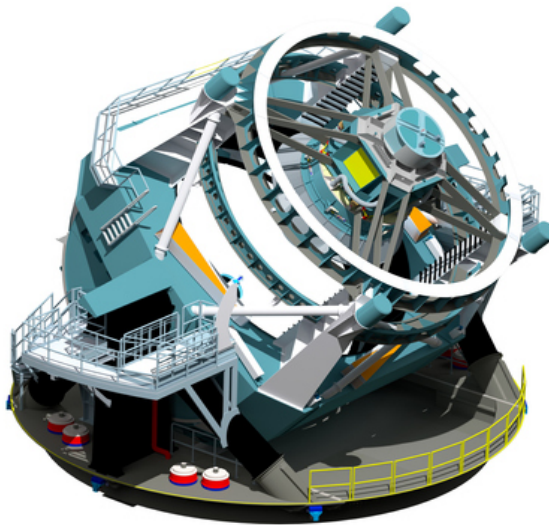
LSST+Euclid: galaxy shape measurement synergies

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collaborators: Joe Zuntz, Catherine Heymans



LSST and Euclid



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SCIENTIFIC SYNERGY BETWEEN LSST AND EUCLID

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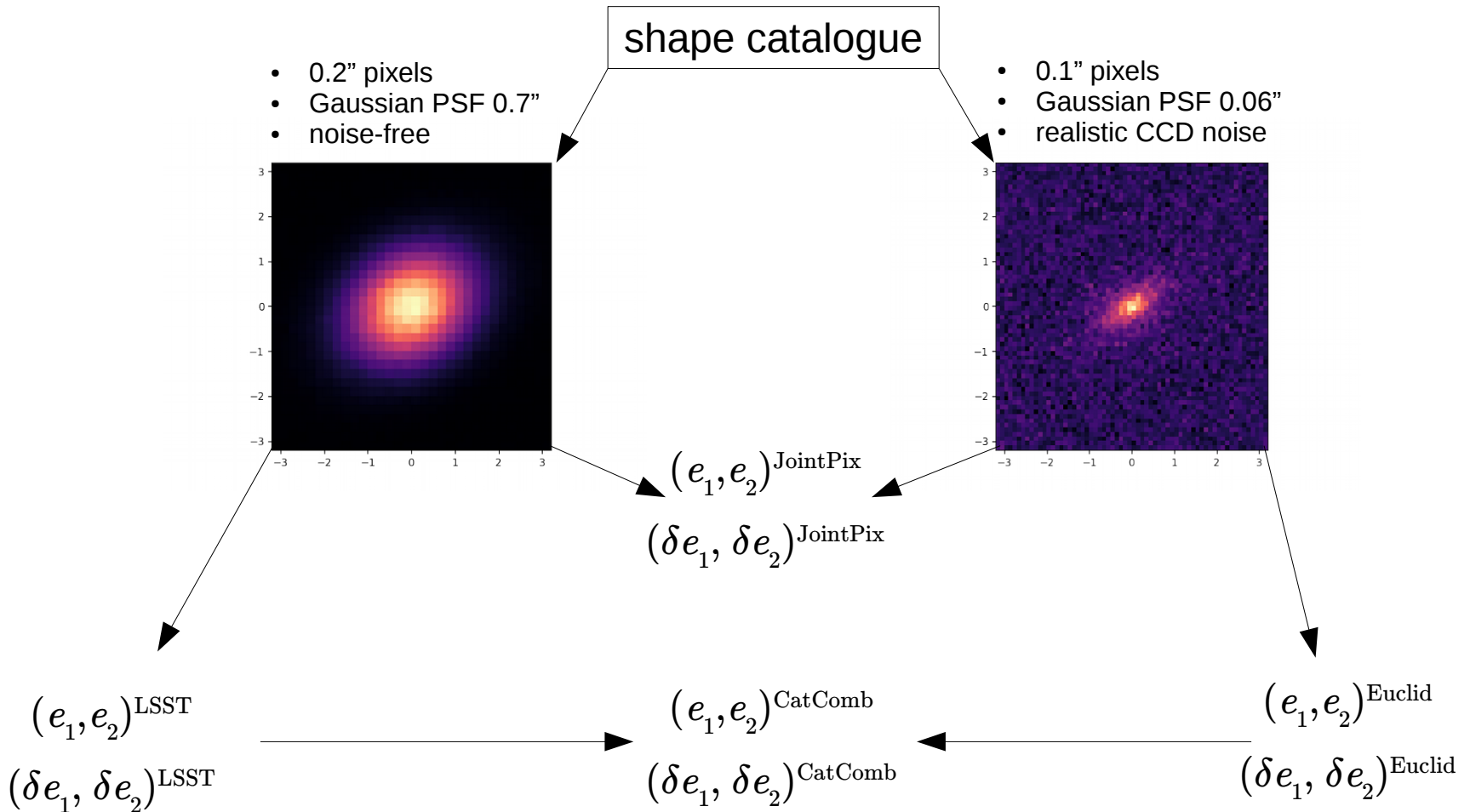
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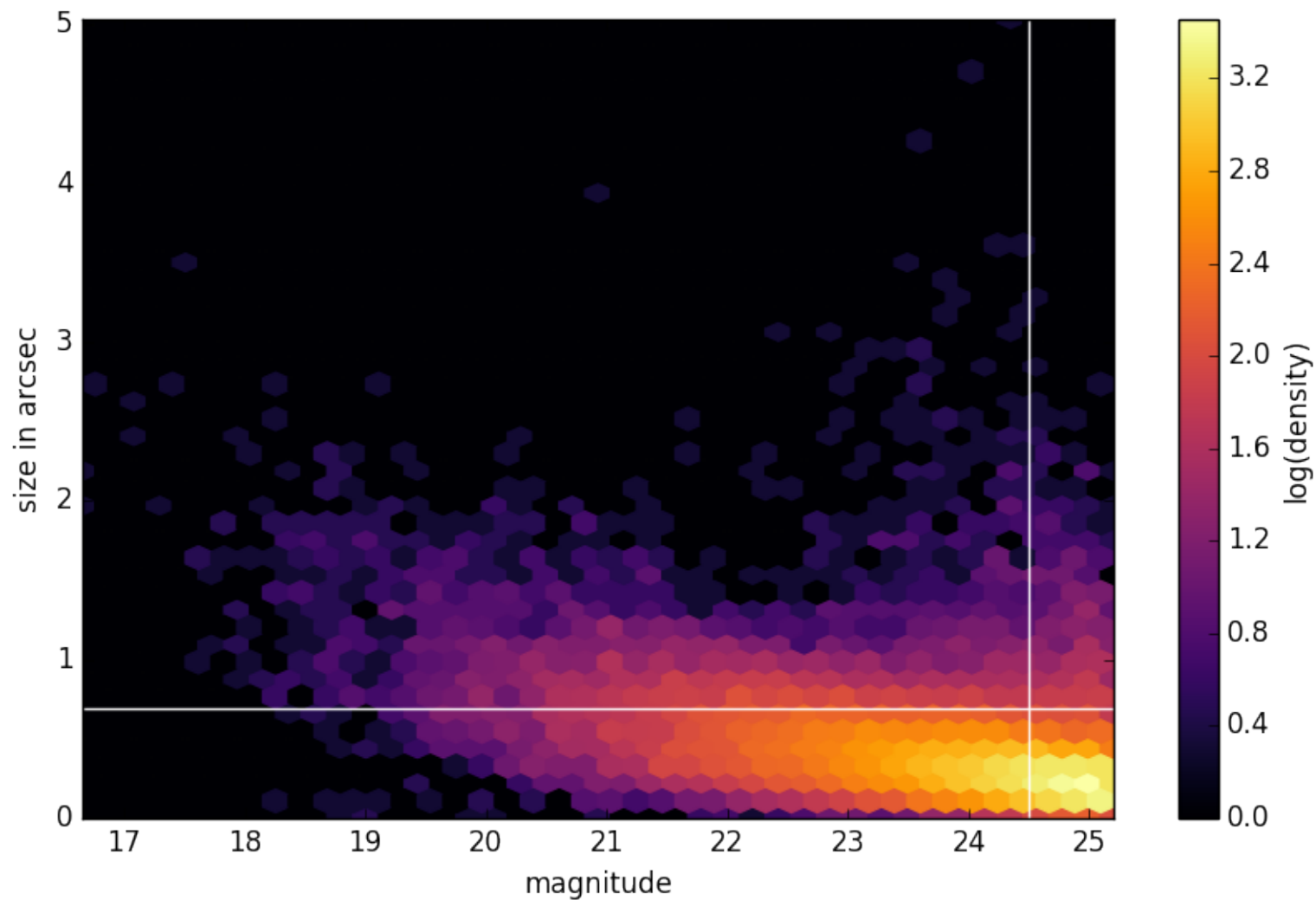
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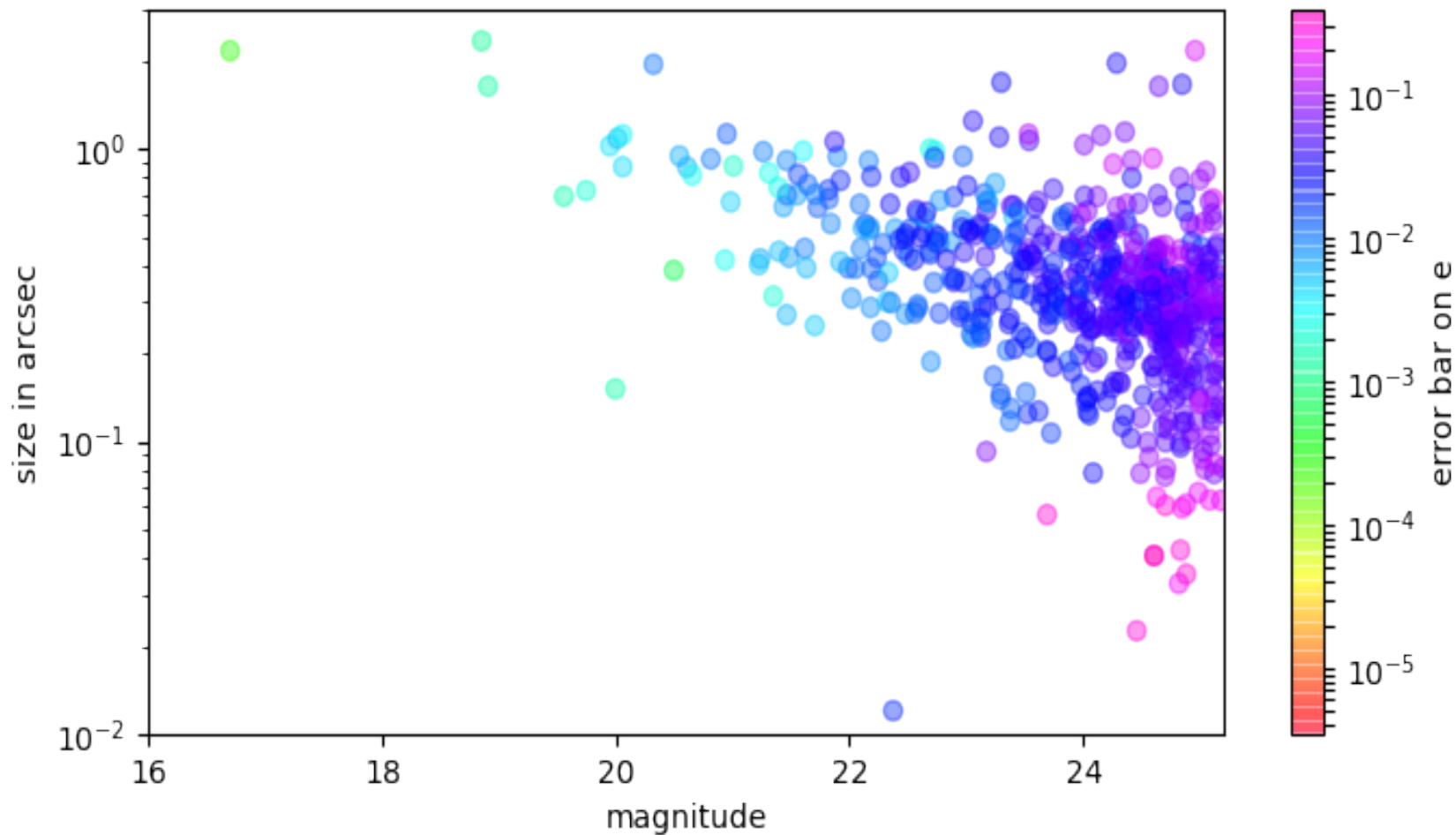
galaxy shapes: exploring synergies



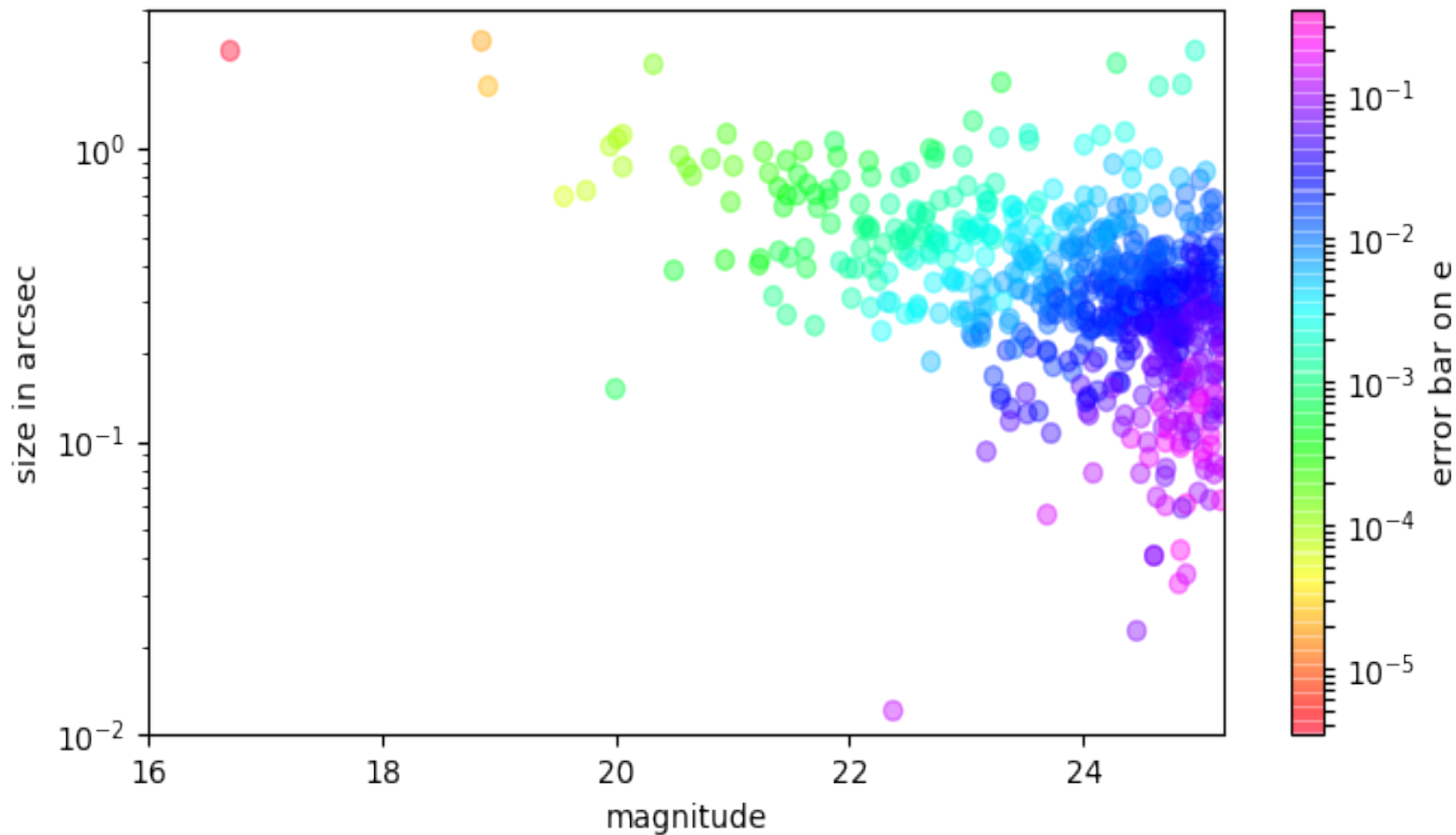
input catalogue



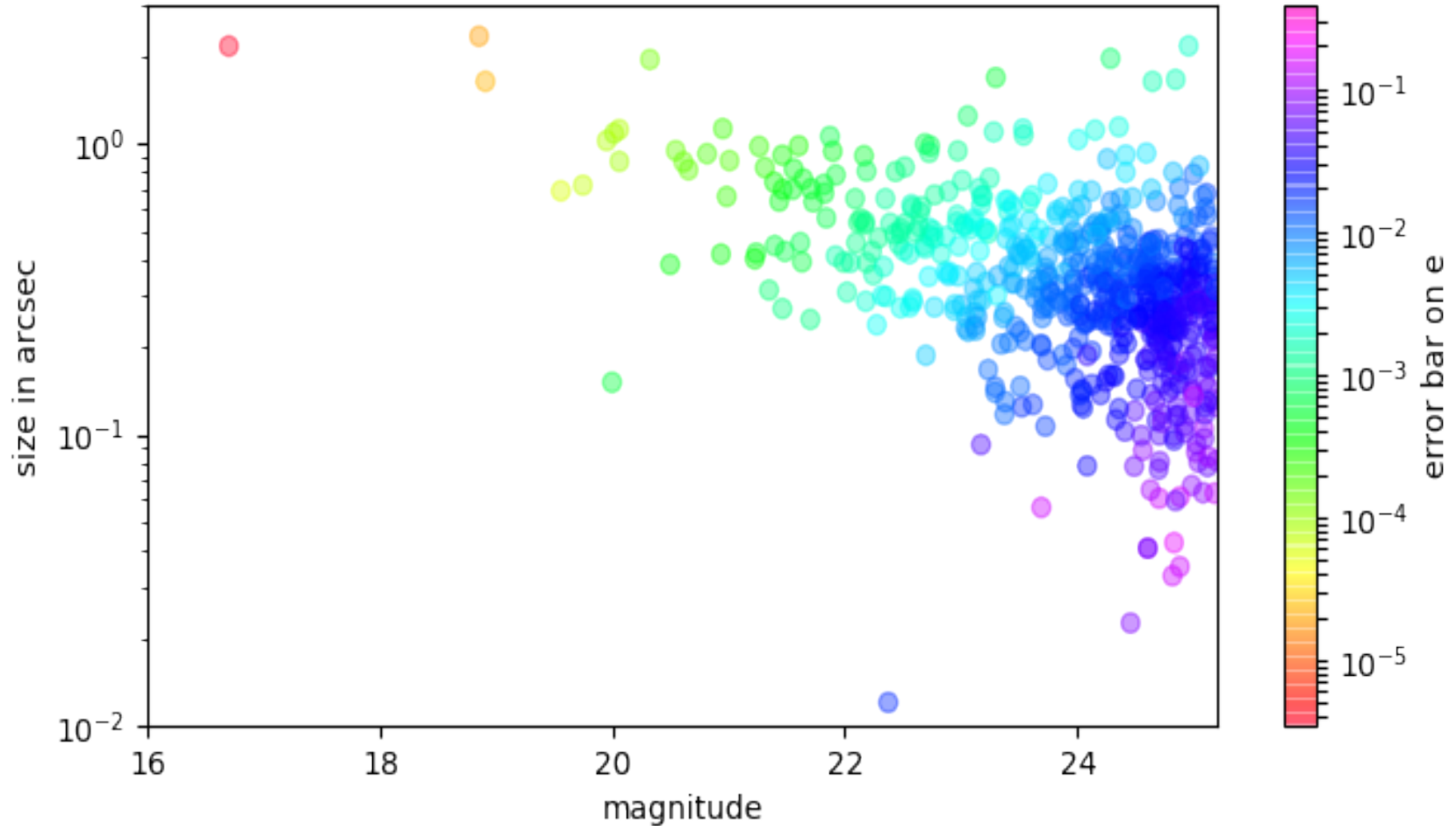
high-res limited-depth imaging (Euclid-like)



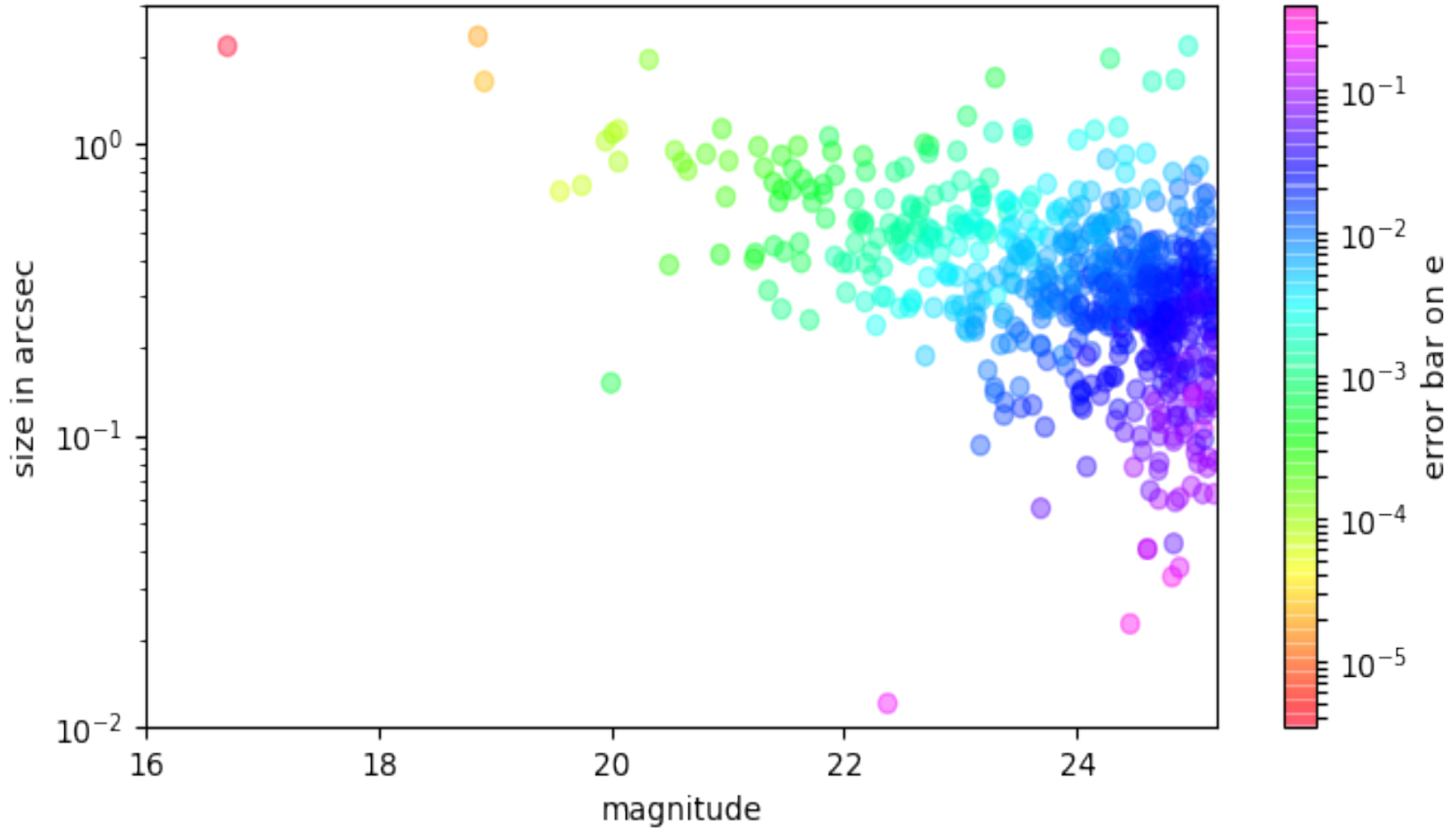
noise-free low-res imaging (LSST-like)



joint shapes: catalogue-level comb.



joint shapes: pixel-level comb.



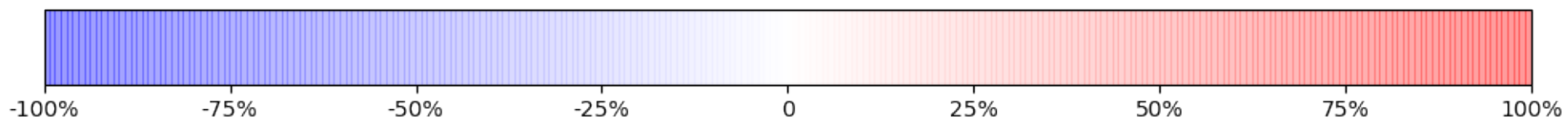
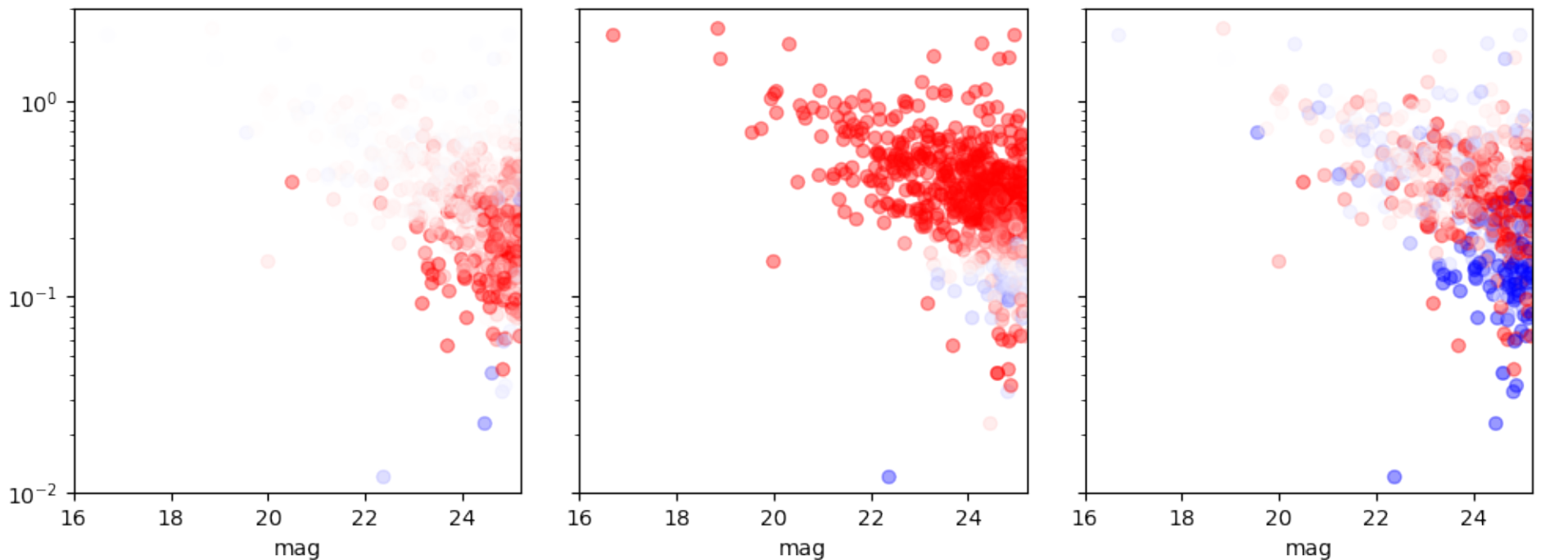
relative comparison to Joint Pixel Analysis



LSST-like

Euclid-like

CatComb × 10



$$(\delta e^D - \delta e^{\text{JointPix}}) / \delta e^{\text{JointPix}} \text{ for } D \in \{\text{LSST}; \text{Euclid}; \text{CatComb}\}$$

future work

- improvements in calibrating multiplicative bias
- simulating proper co-adding; more complex PSF models
- more galaxy profiles
- astrometry + PSF confusion
- blending!!
- ... (your suggestion here!)

Thank you for your attention!



... questions?