

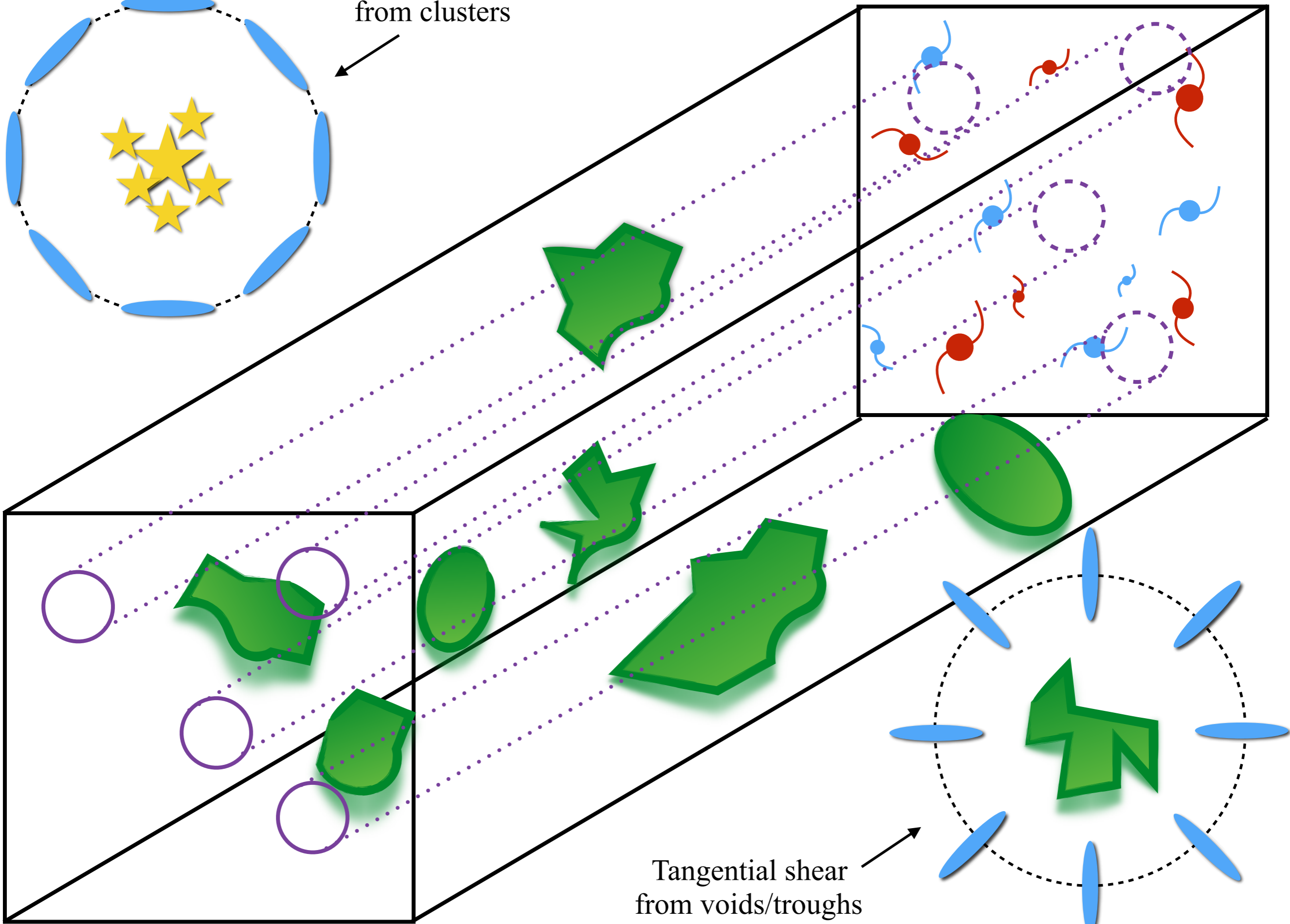
# Weak Lensing with Voids & Density Split Statistics

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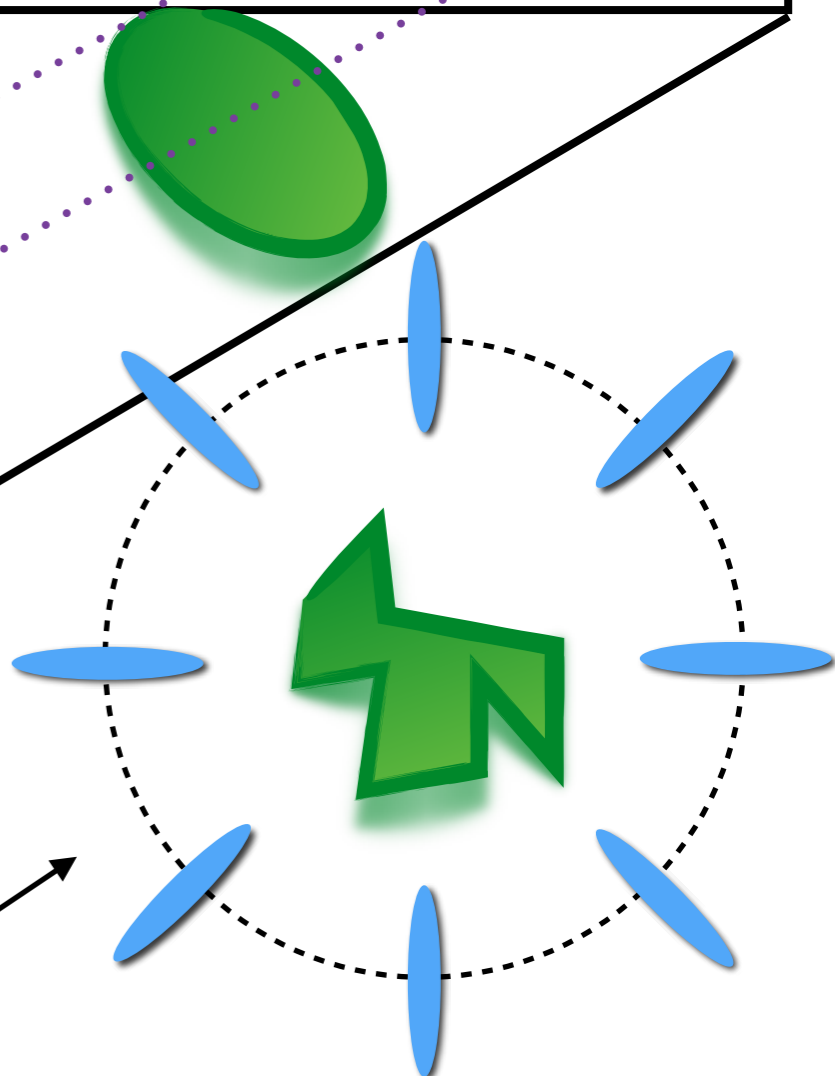
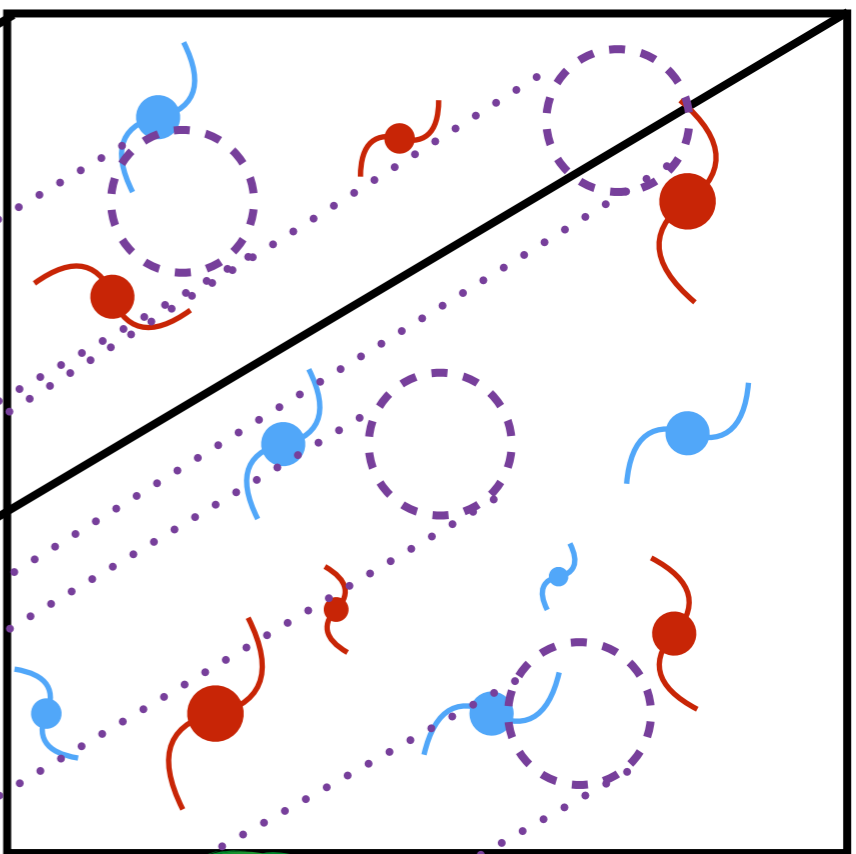
SCLSS  
University of Oxford  
18/04/2018



Tangential shear  
from clusters

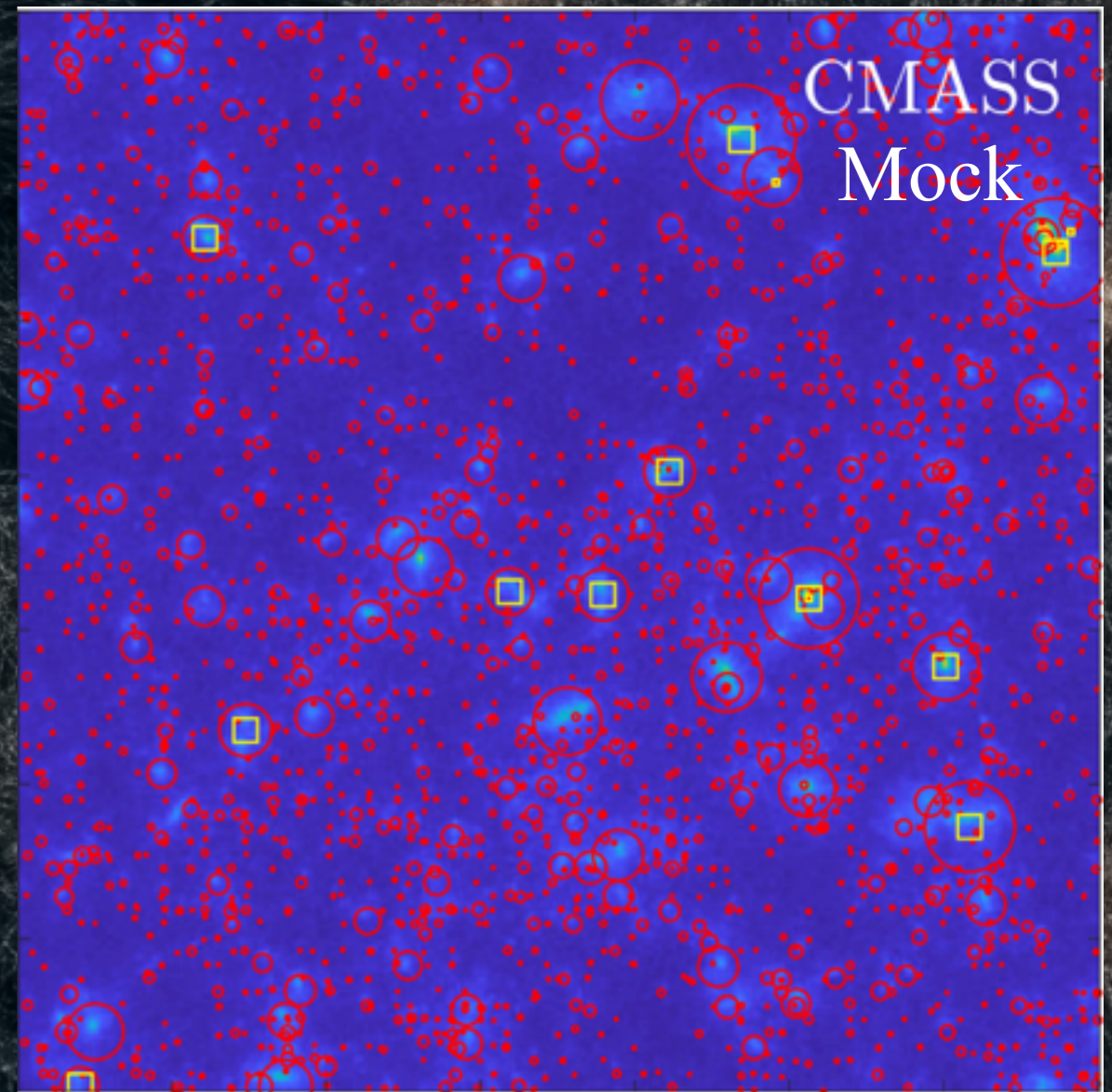


Tangential shear  
from voids/troughs

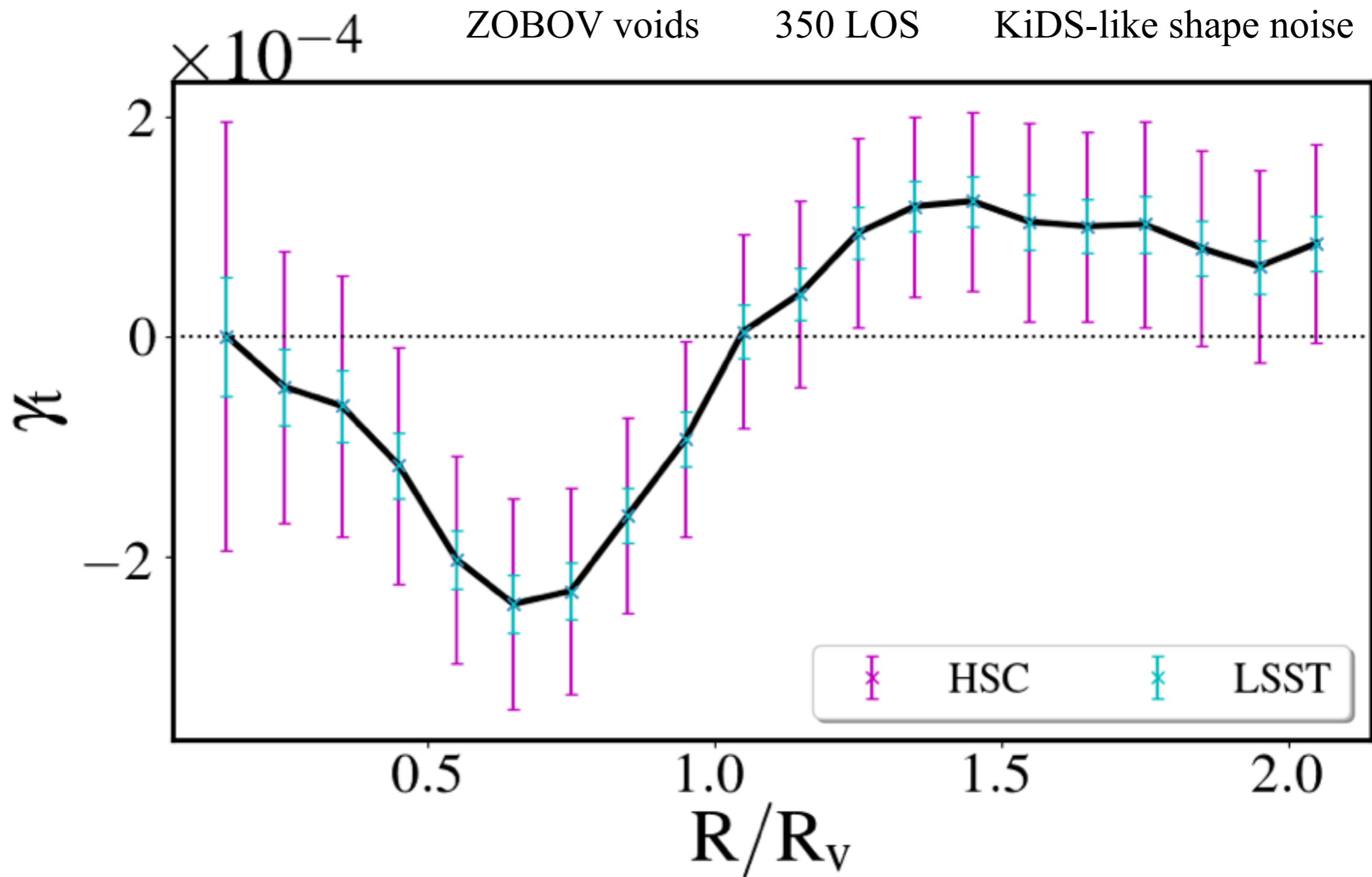


# SLICS Simulations

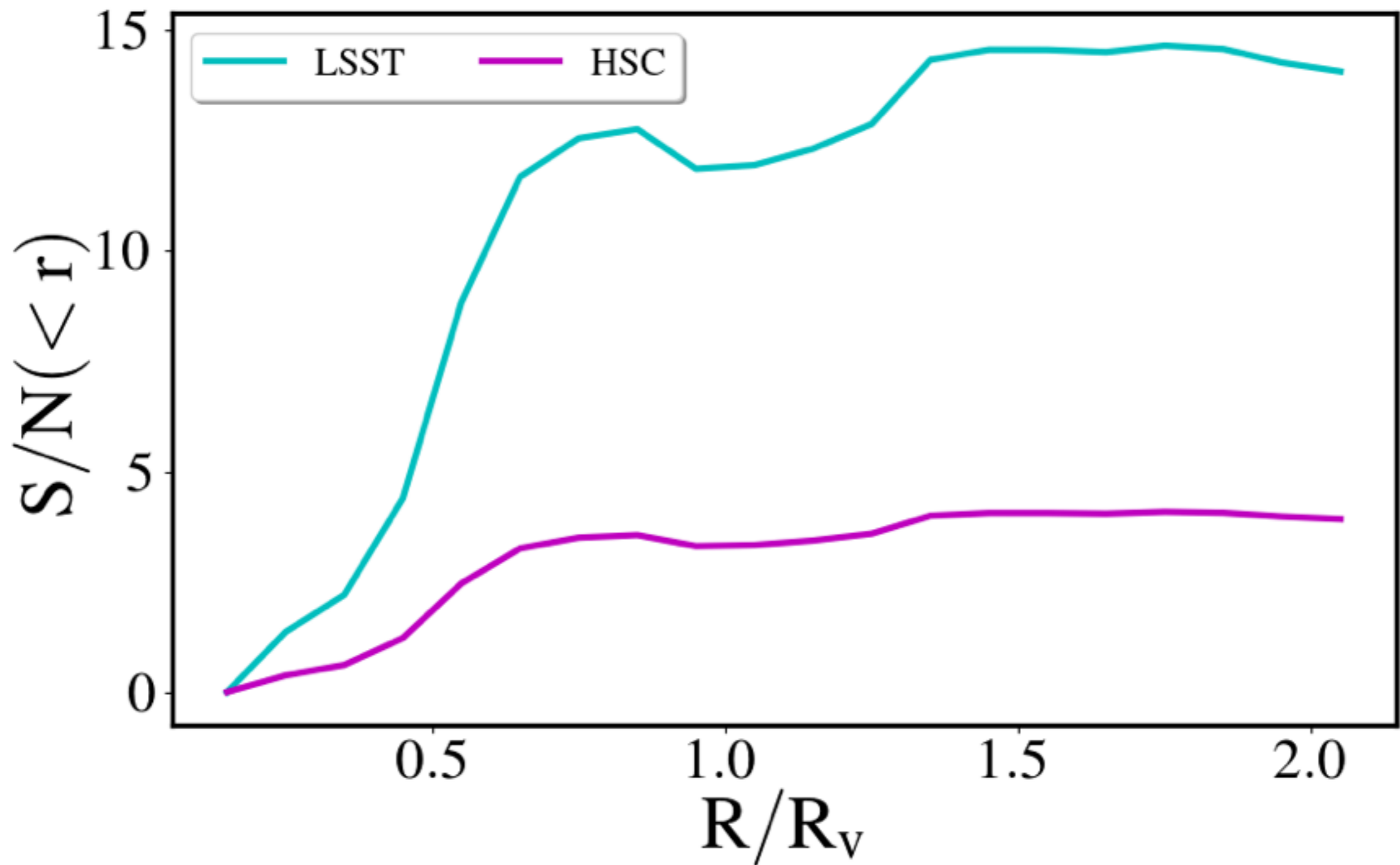
- 100 deg sq
- 505 Mpc/h boxes used to create lightcone
- Lenses are from a CMASS HOD
- Sources are LSST-like in range  $0.8 < z < 1.5$
- 932 realisations available



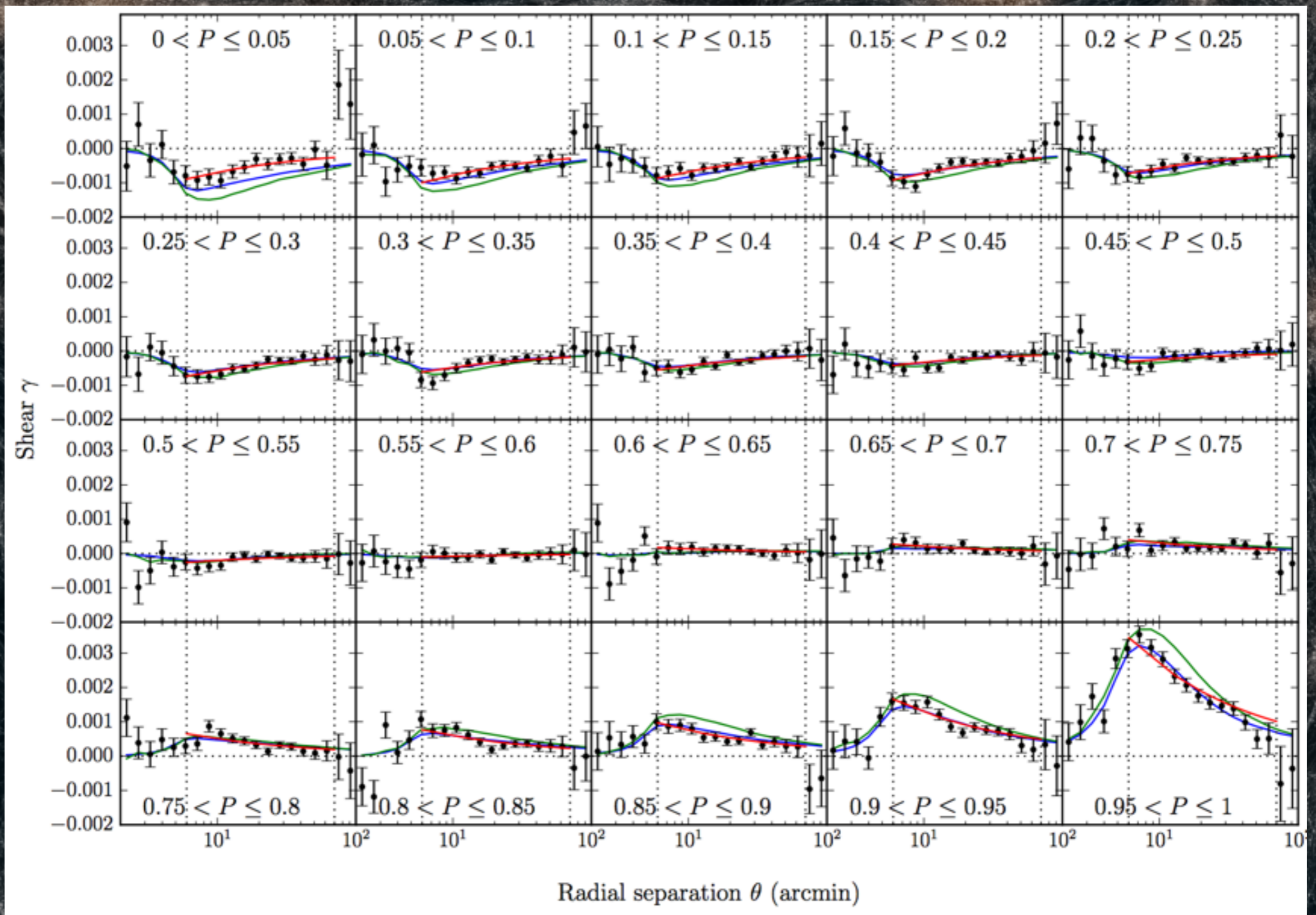
# Shear Prediction



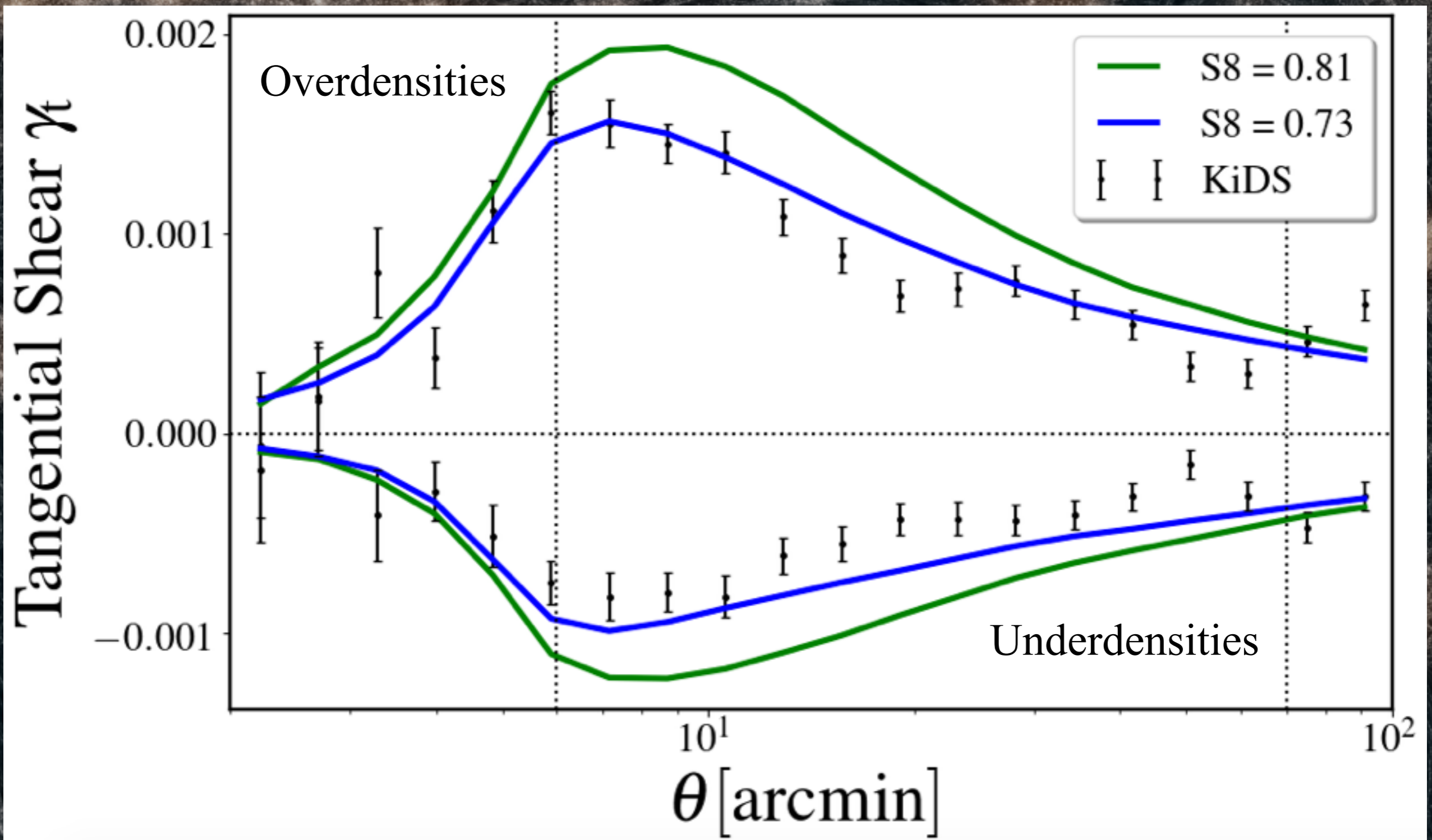
# Signal-To-Noise



# Density Split Statistics (DSS)



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# Conclusions

- 3D voids contain more information on structure formation and possible deviations from GR, but lower S/N compared to 2D projections
- 2D projections show a high detections signal and are sensitive to cosmology

Thank You!