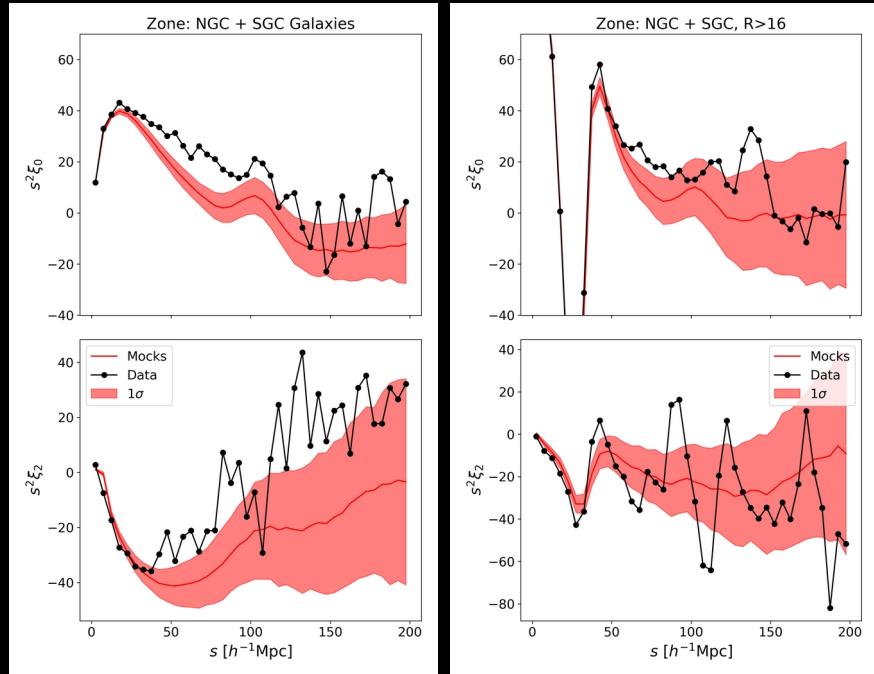
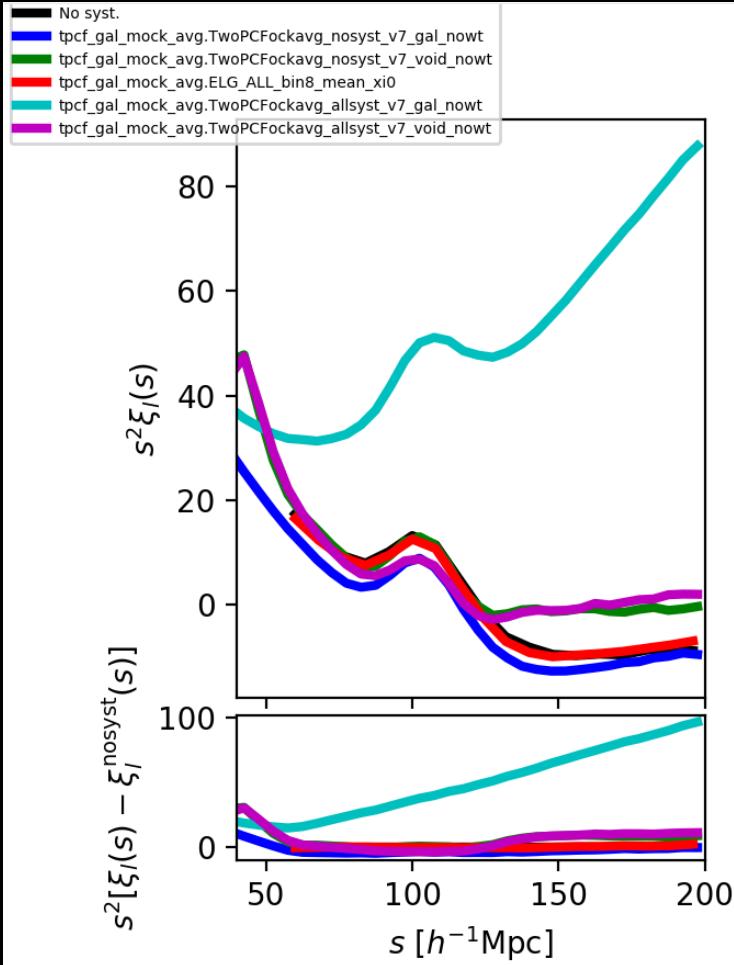


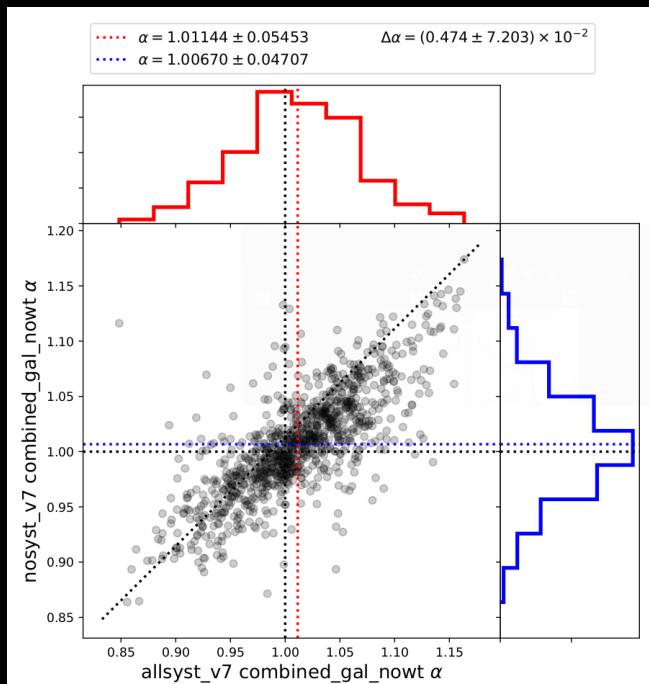
# Systematics on ELGs



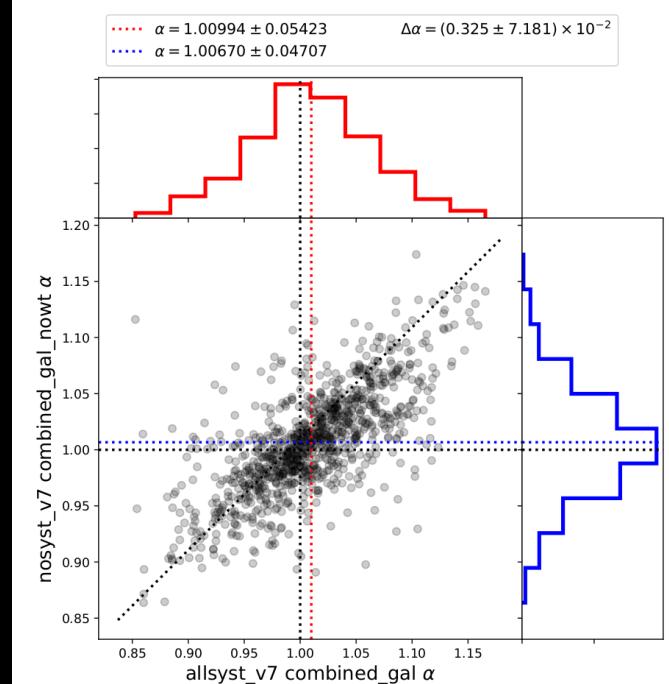
- Large positive bias in galaxy 2pcf using only FKP weights
- Amplitude of BAO peak decreased by systematics (green vs. magenta (?) curves)
- Small bias even in weighted galaxy 2pcf (red vs. blue)

# ELG void template fits alpha distributions

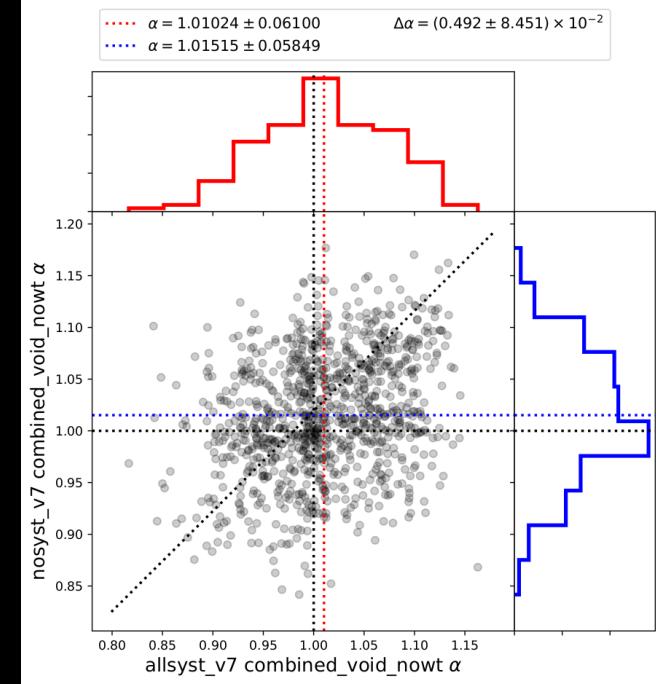
Templates to be improved.



Galaxies no weights



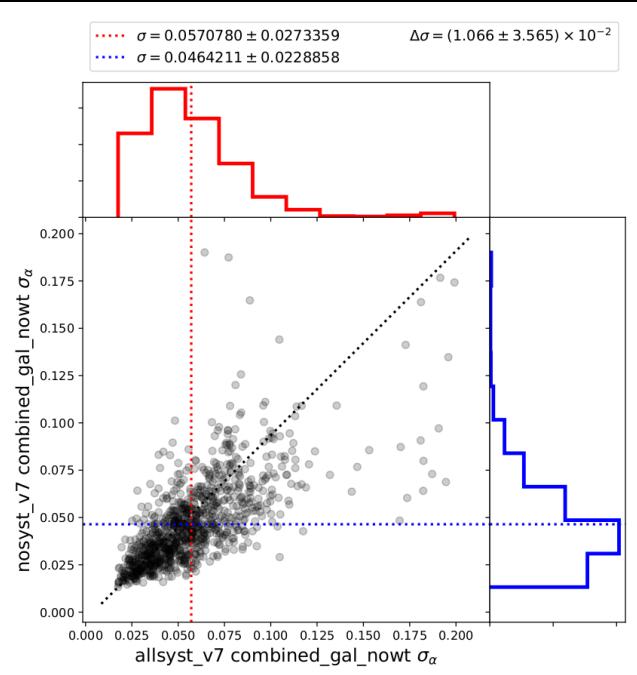
Galaxies weights



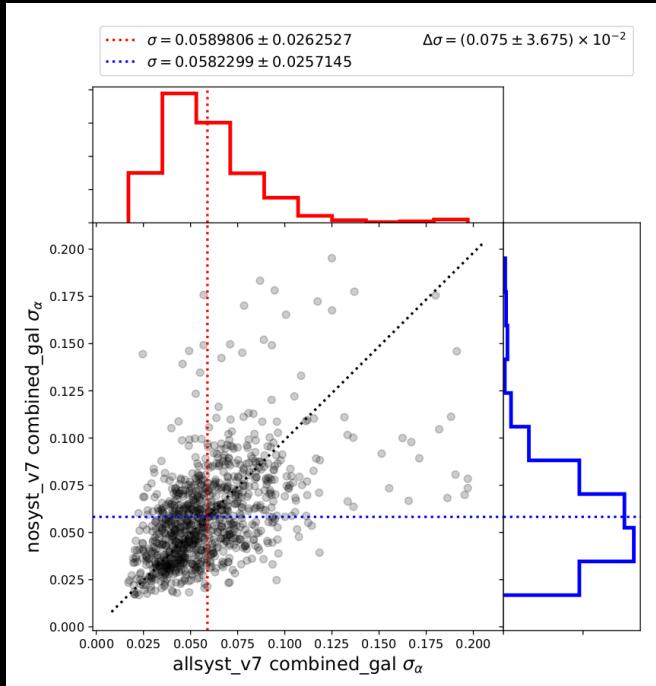
Voids no weights

# ELG void template fits sigma distributions

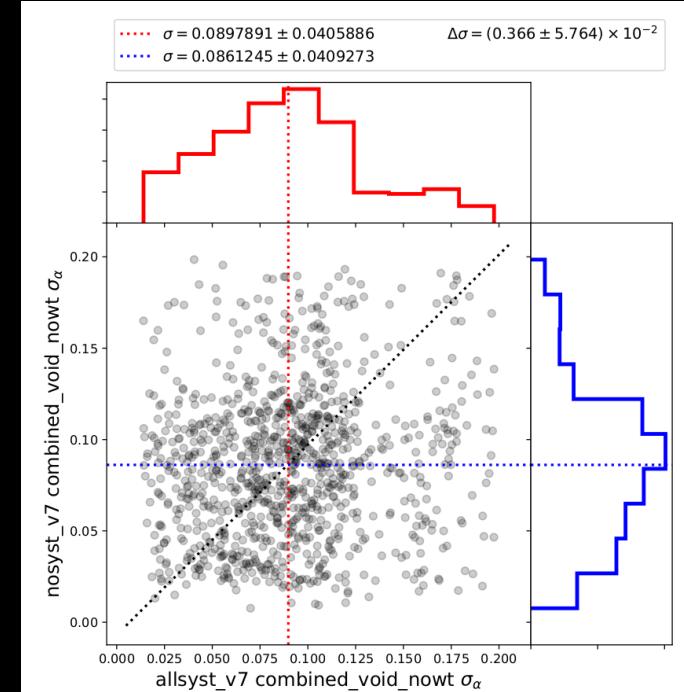
Template in progress



Galaxies no weights



Galaxies weights

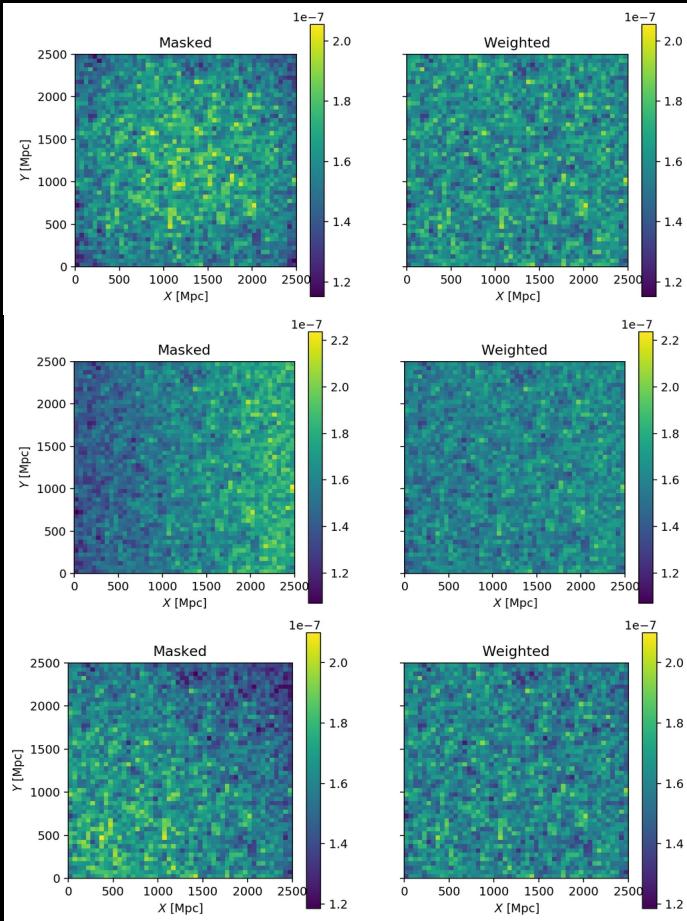
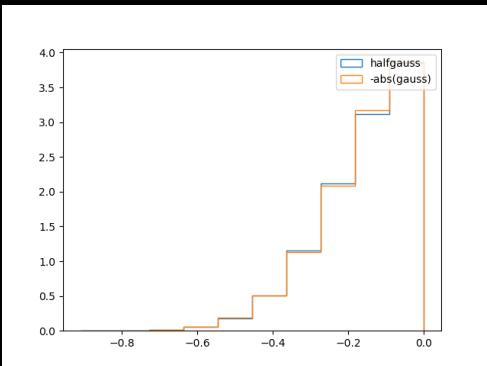


Voids no weights

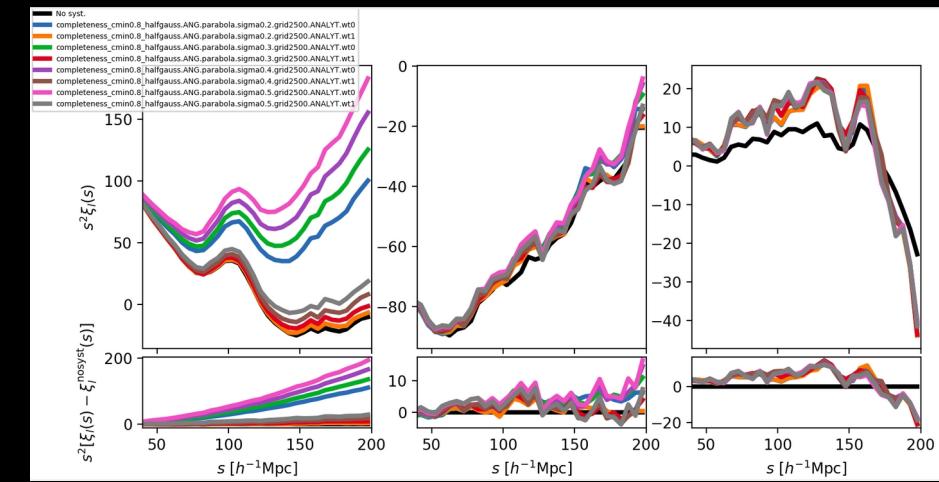
# Systematics on boxes

Apply completeness maps to catalogs:

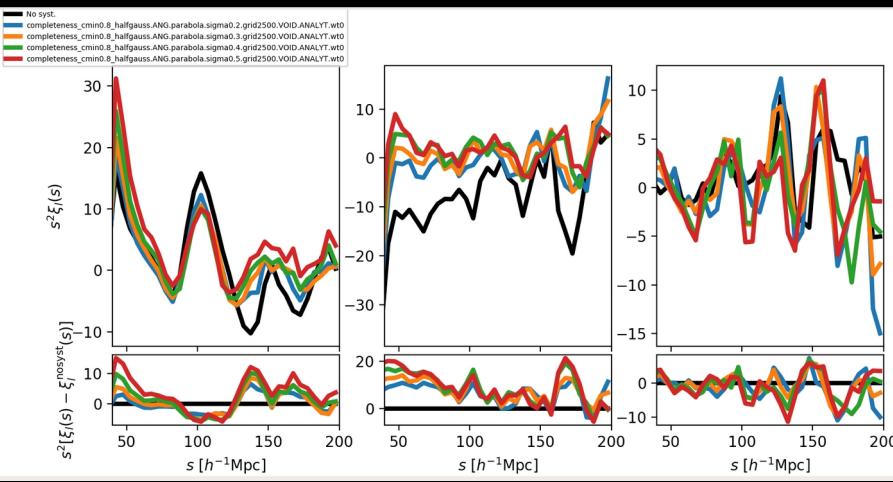
- Smooth map: Simulate angular distribution.
- Noisy map: Simulate angular distribution + Random angular effects (eg. redshift failures)
- Add weights from inverse smooth completeness.



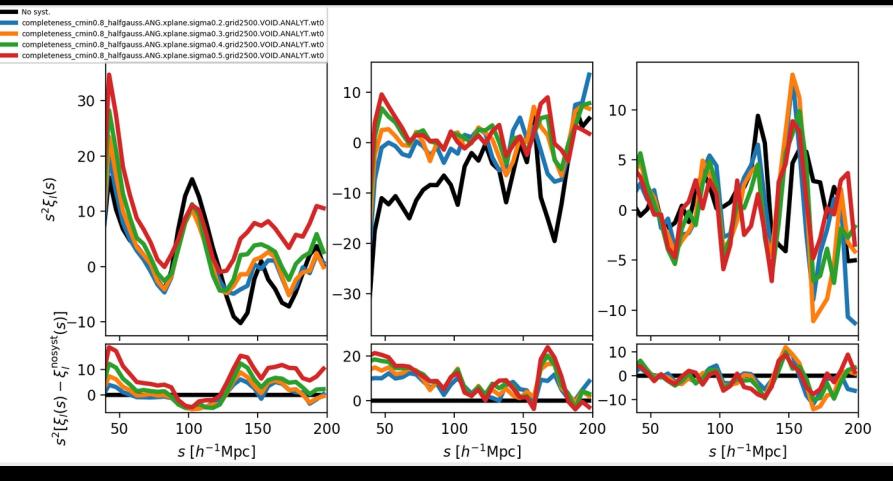
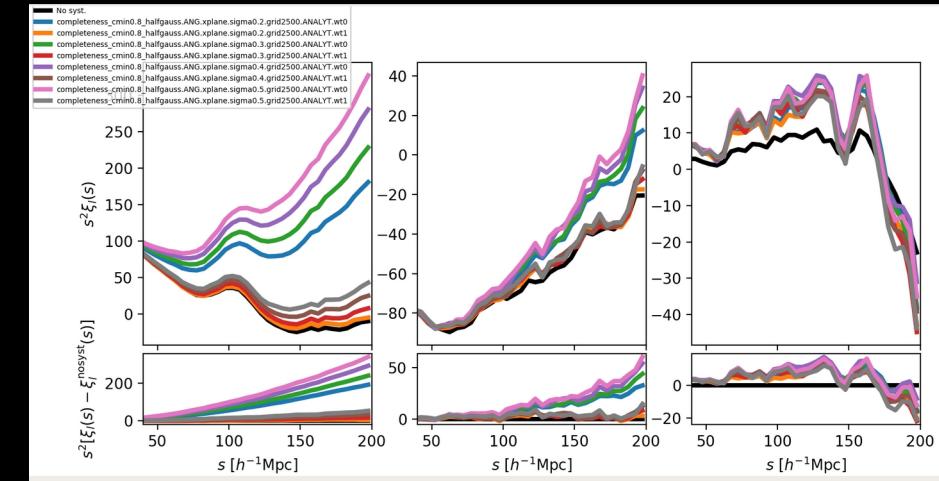
# Example on one realization



Parabola



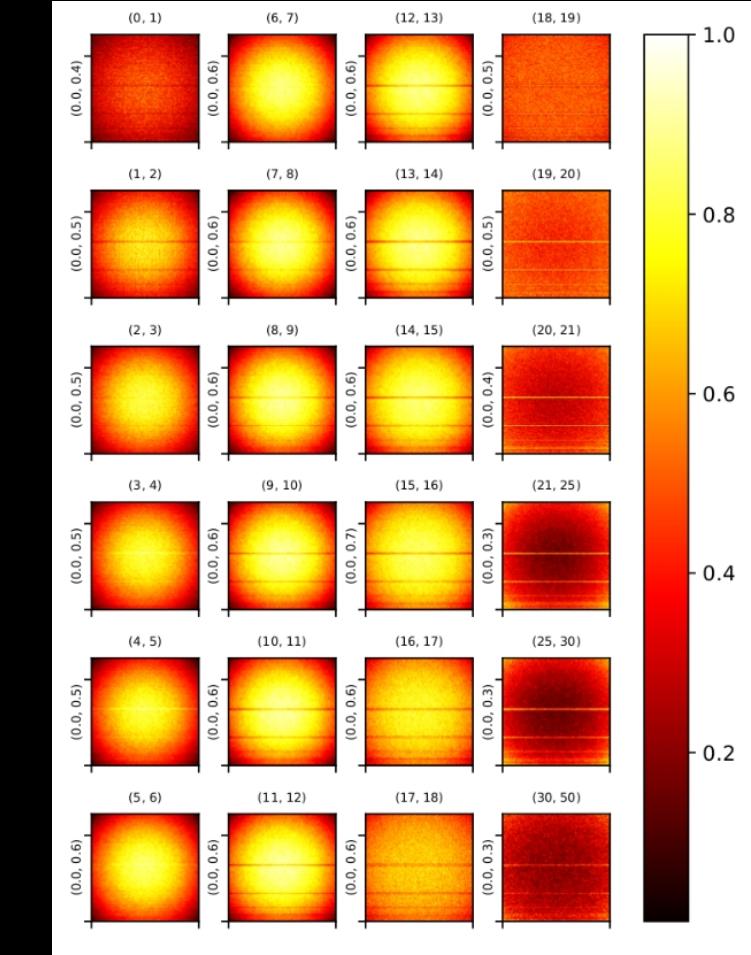
Plane



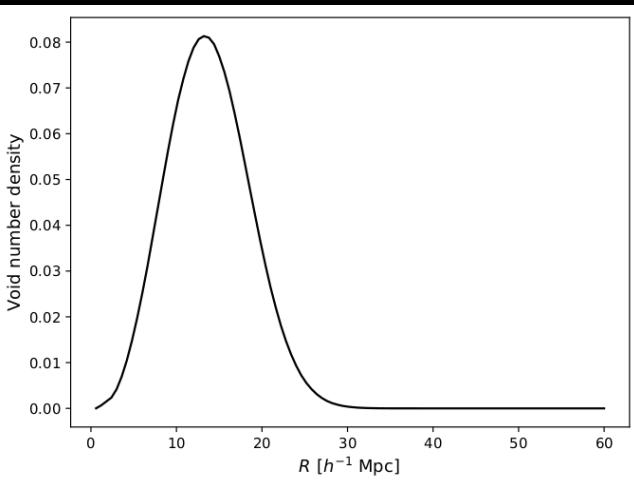
# Comp. Map: Voids

(Rmin, Rmax)

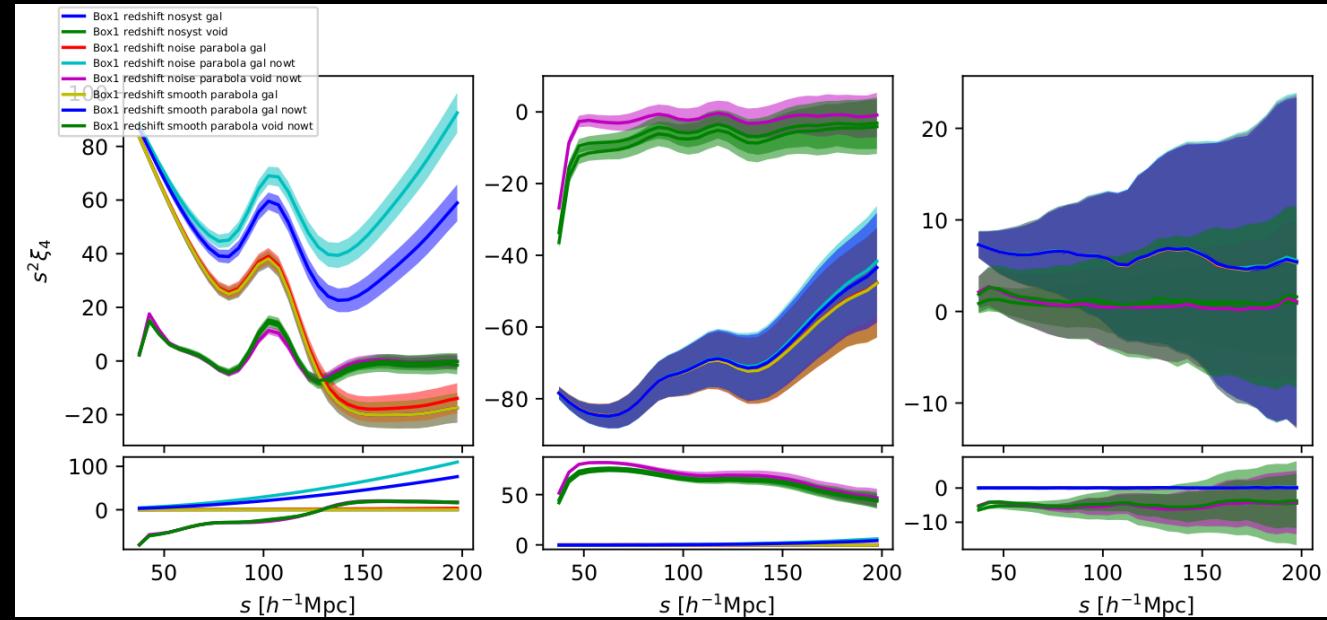
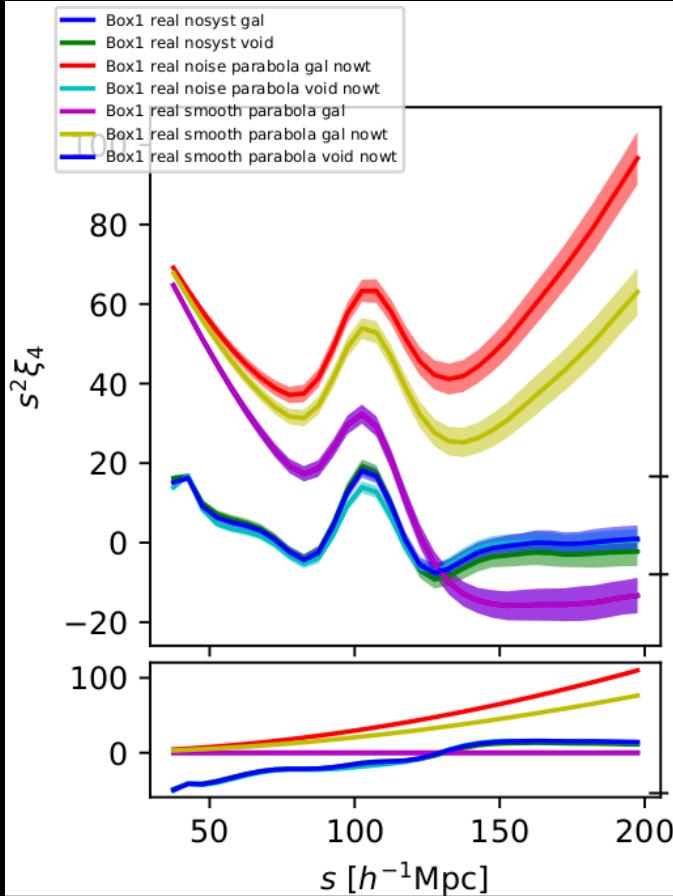
Noisy r-space normalized



- Small voids reflect completeness map.
- Bigger voids  $\sim 16\text{-}17 \text{ Mpc}/h$  are more uniform.
- Biggest voids even show an “inverse map”
- It is worth investigating weights for voids

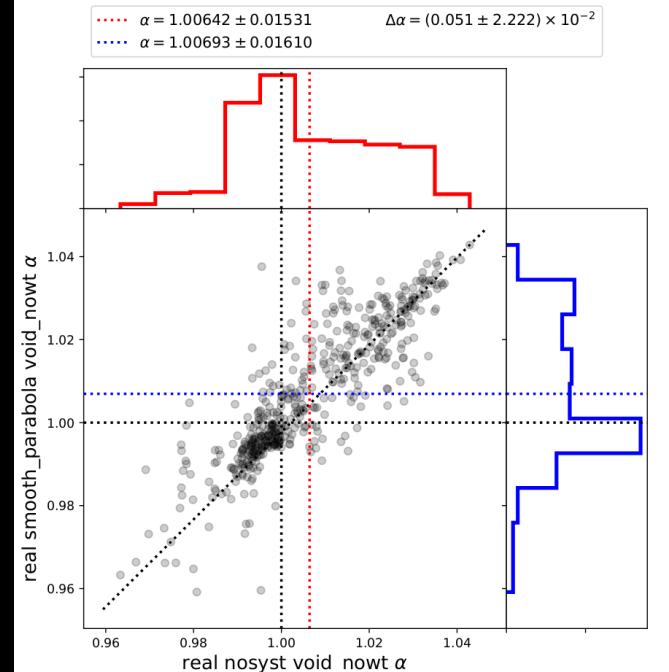
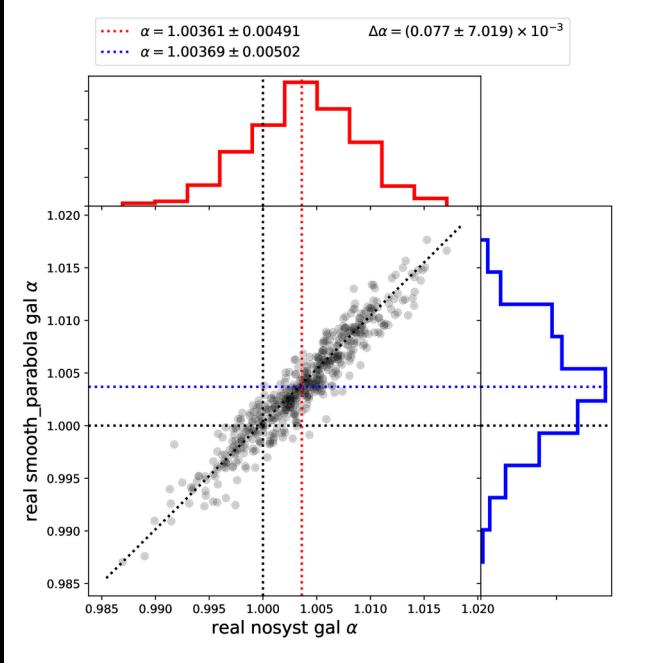
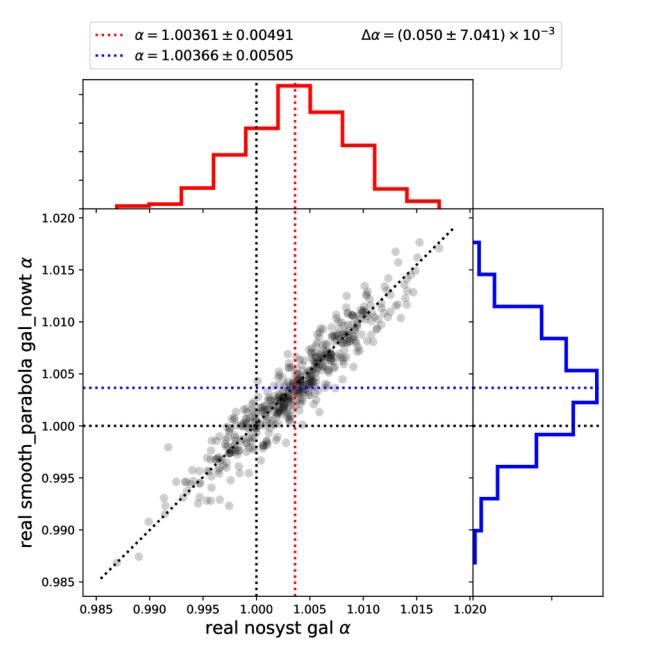


# Average 2PCF



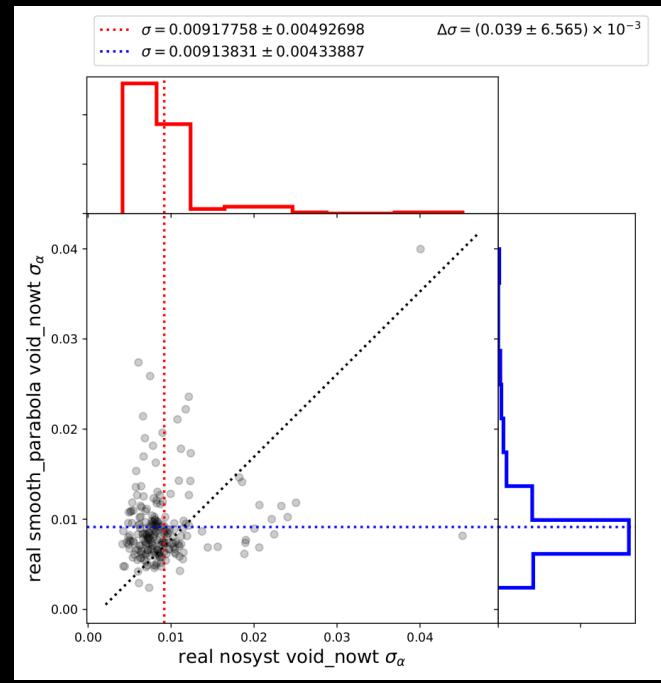
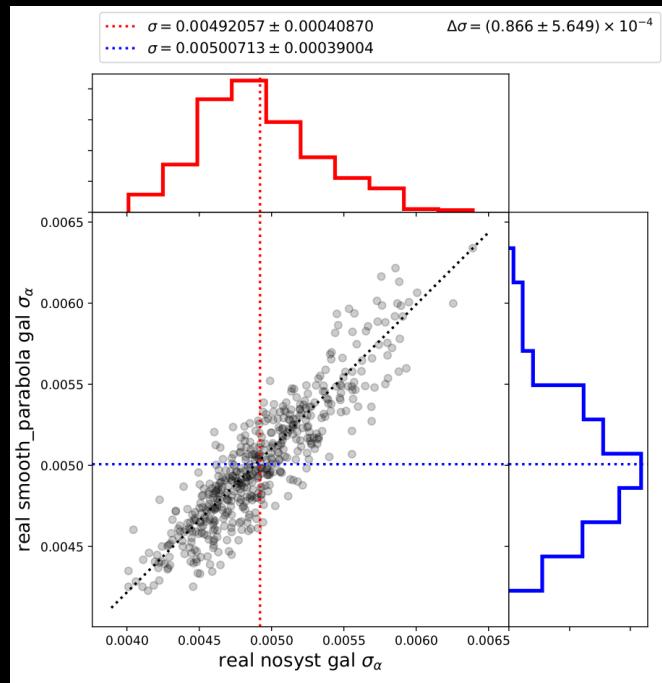
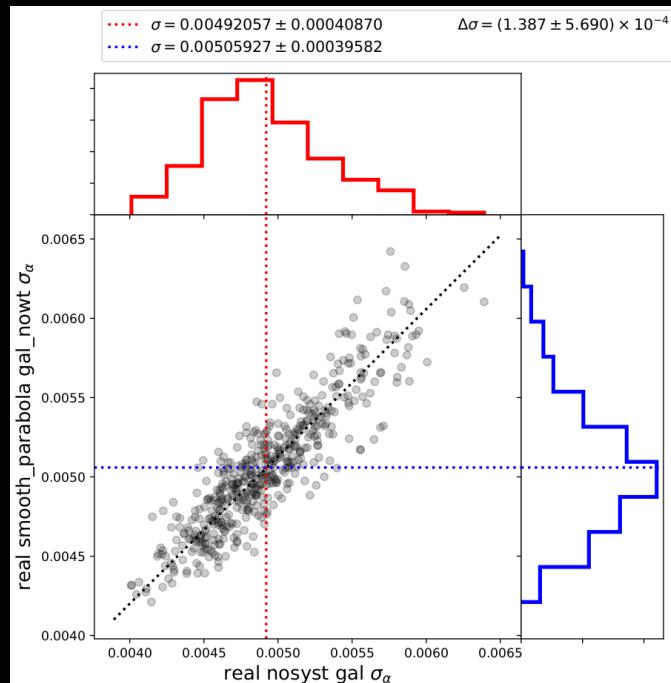
- Large positive bias in galaxy 2pcf without weights
- Amplitude of BAO peak decreased by random systematics (a.k.a. noise, green vs. magenta (?) curves)
- Small bias even in weighted galaxy 2pcf (red vs. yellow-ish)

# Boxes fits real space: Smooth Comp.

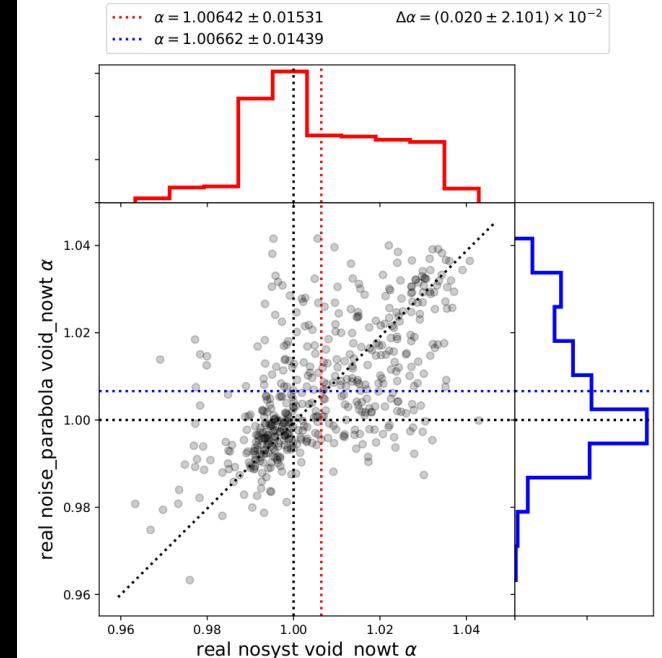
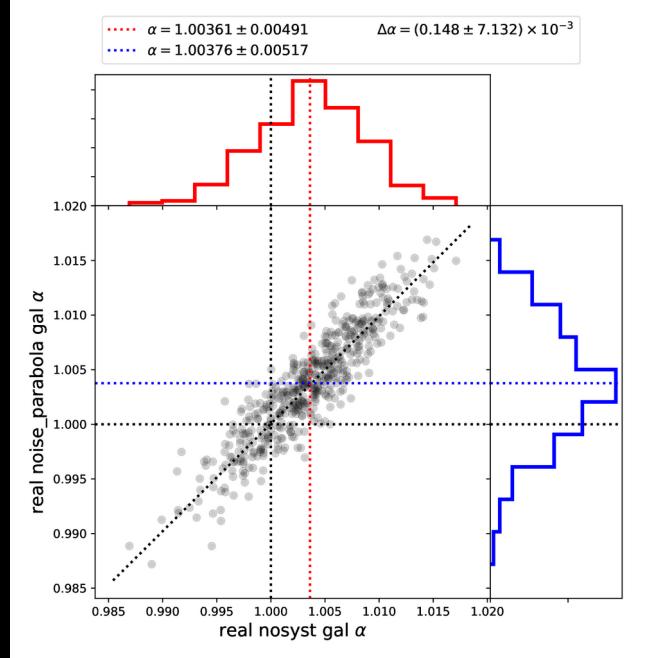
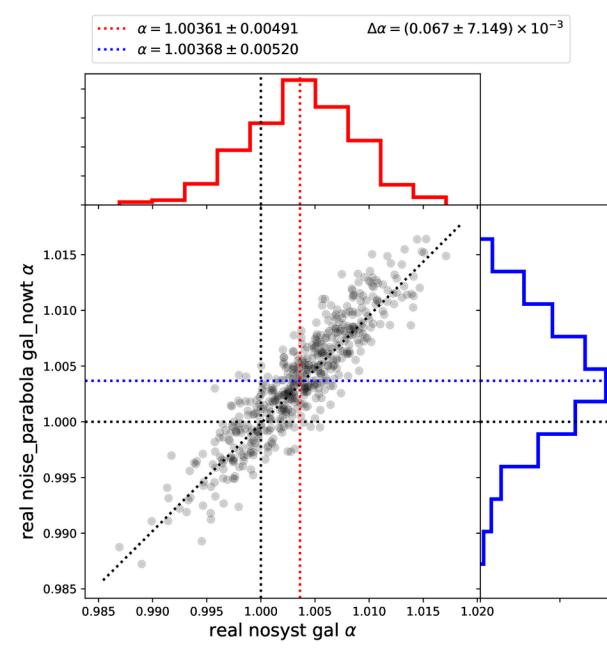


# Boxes fits real space: Smooth Comp.

Sigma distributions

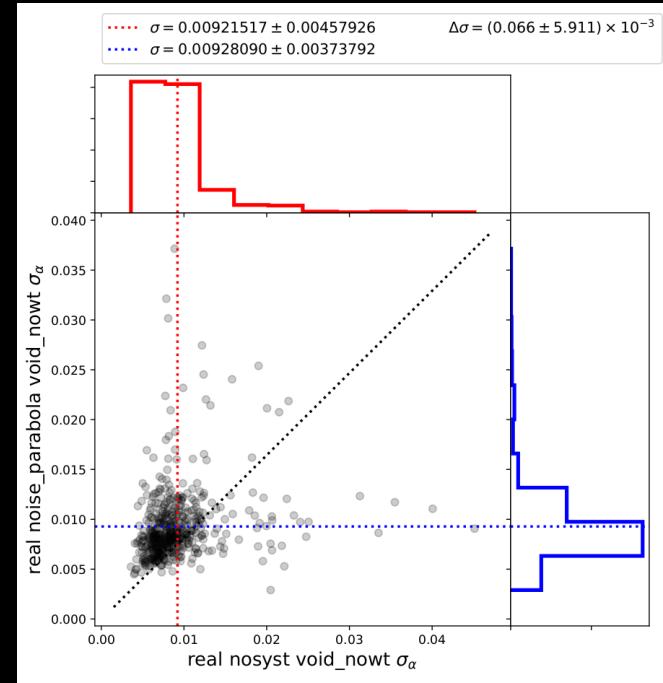
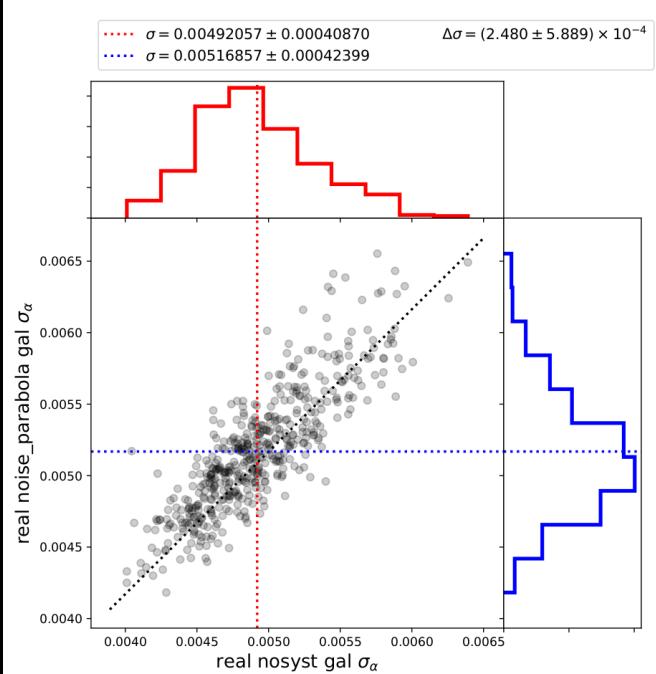
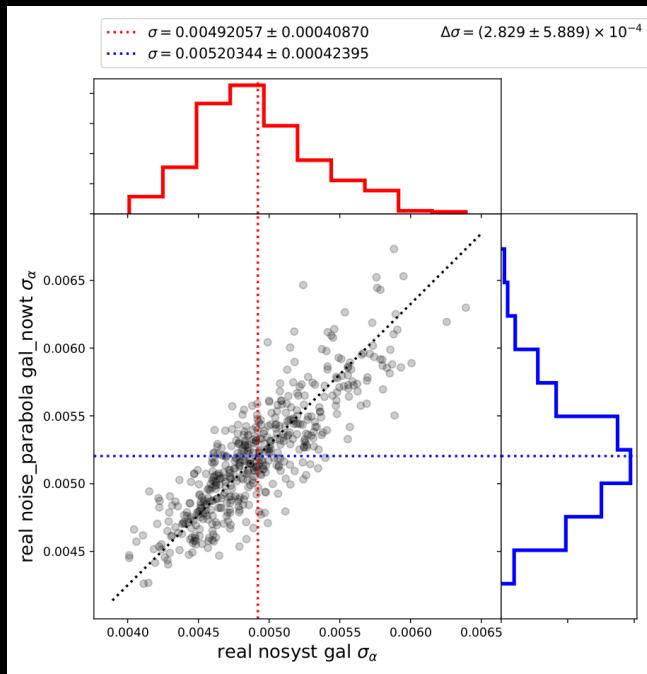


# Boxes fits real space: Noisy Comp.

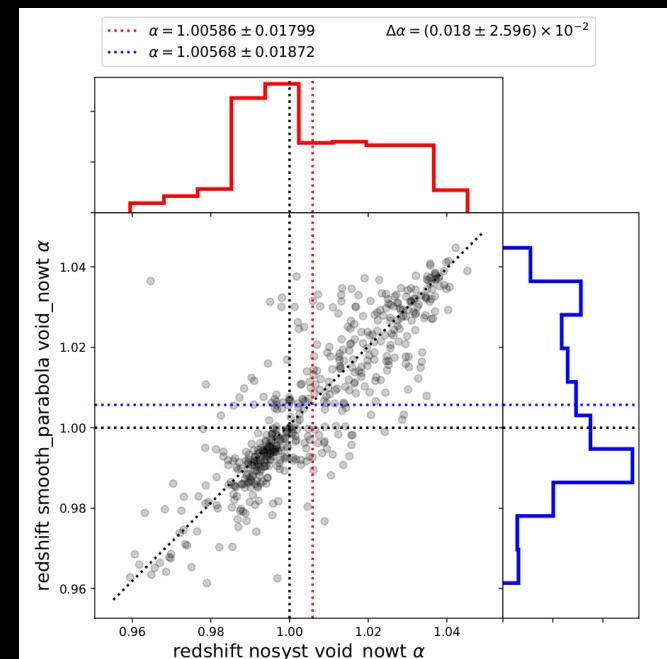
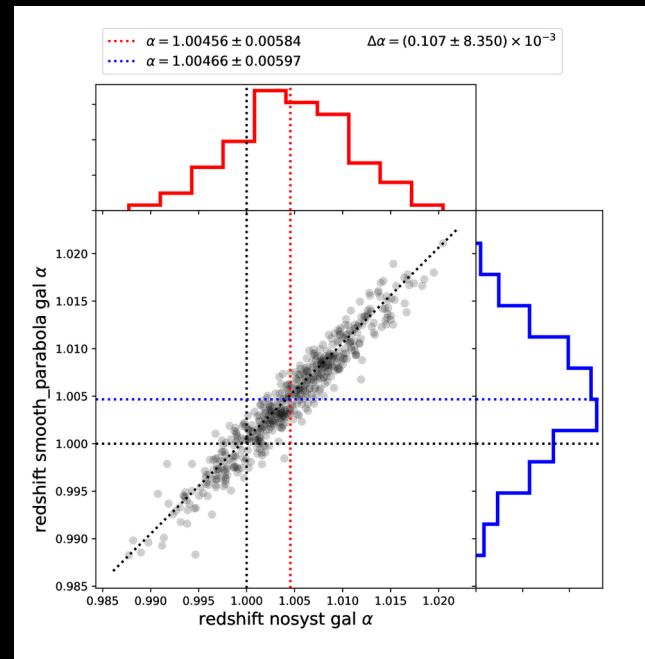
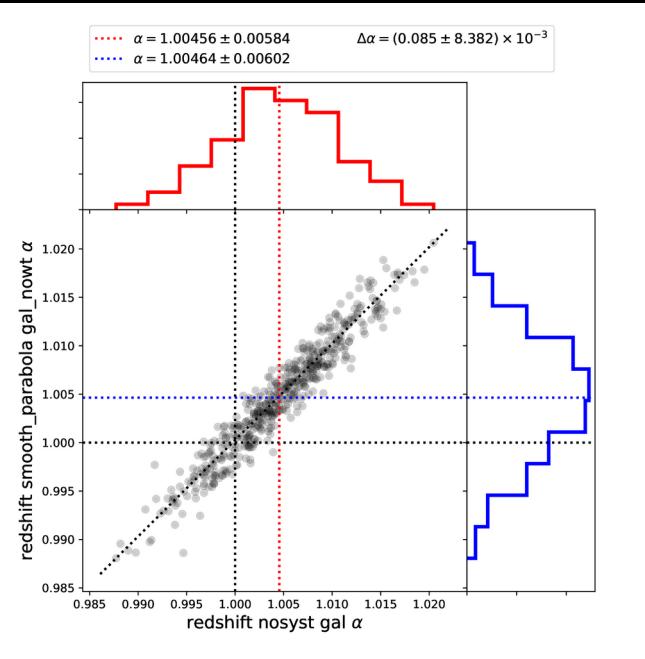


# Boxes fits real space: Noisy Comp.

Sigma distributions

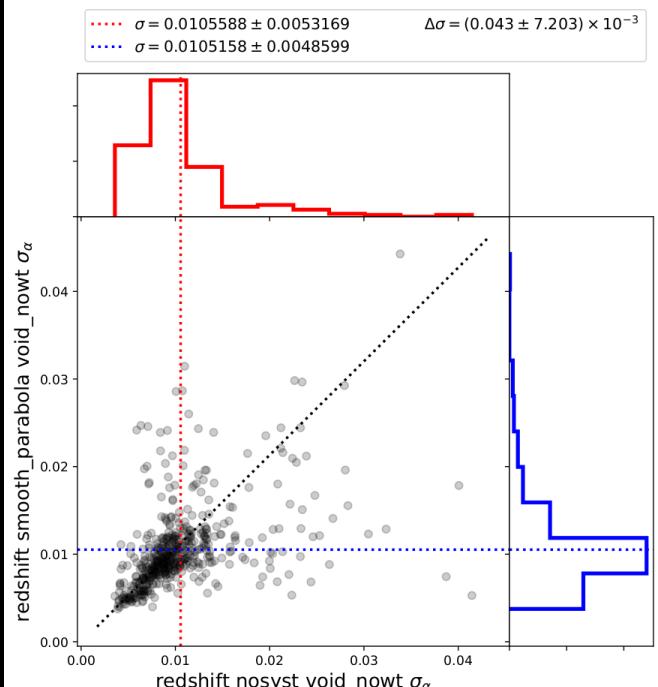
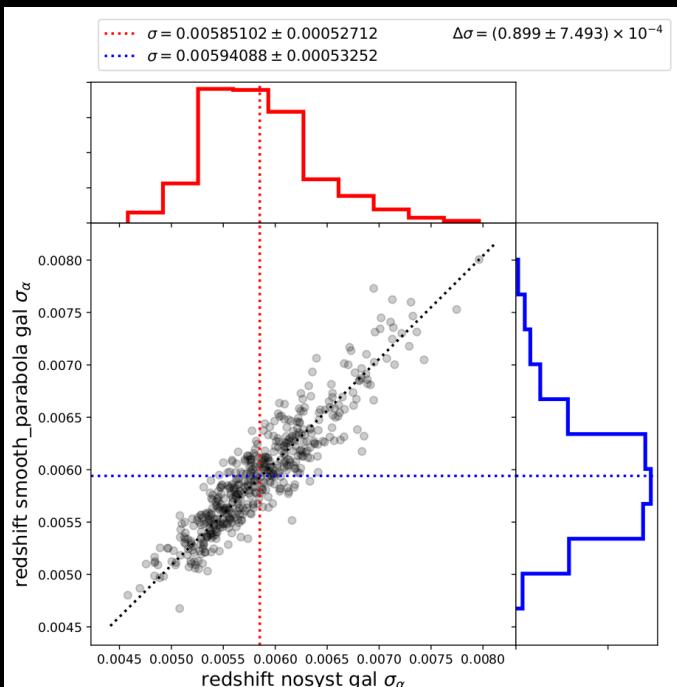
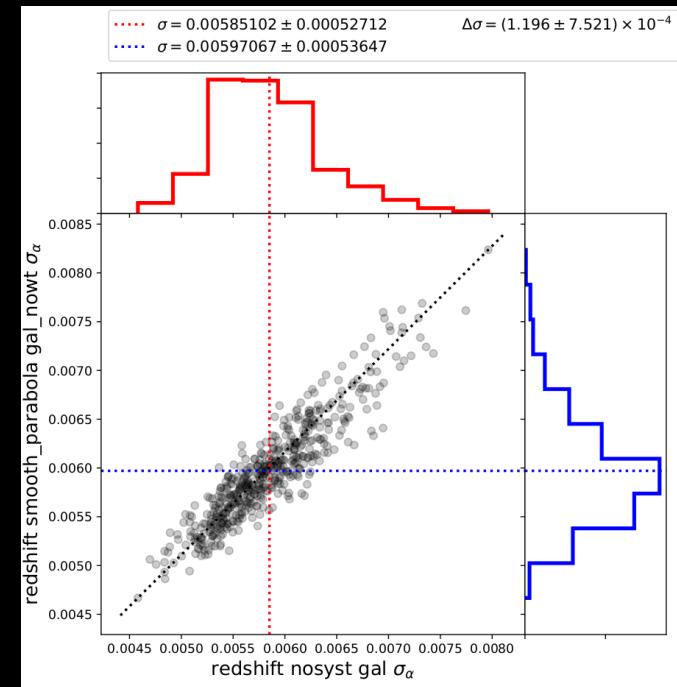


# Boxes fits redshift space: Smooth Comp.

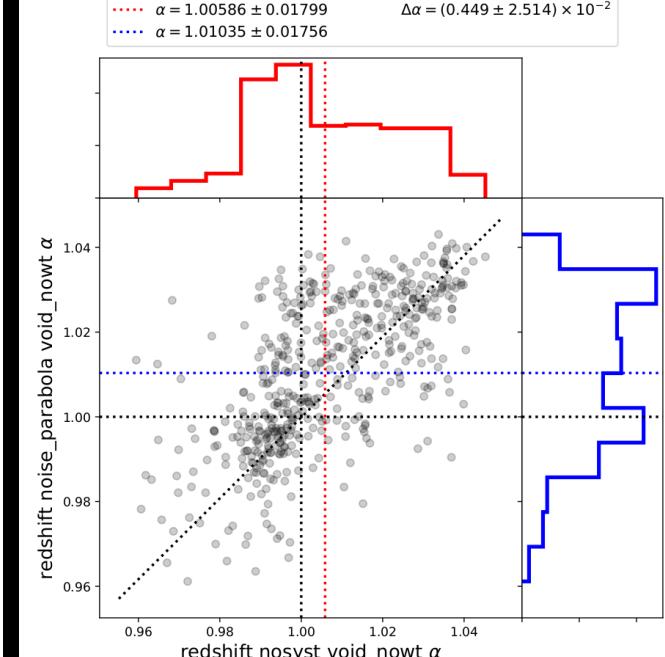
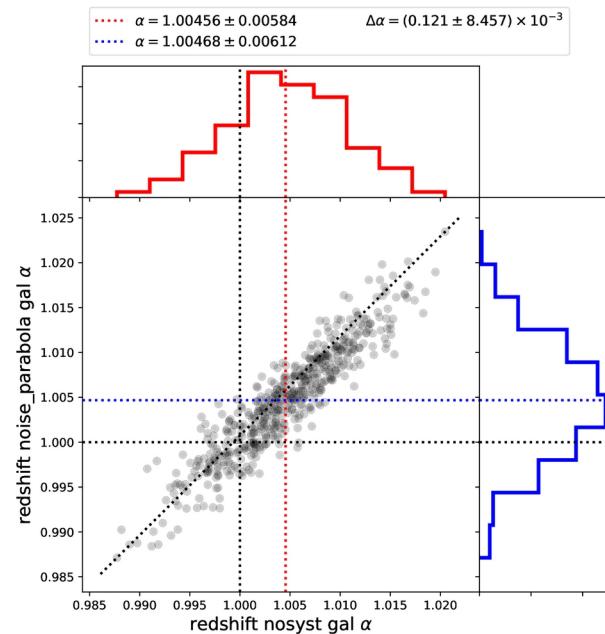
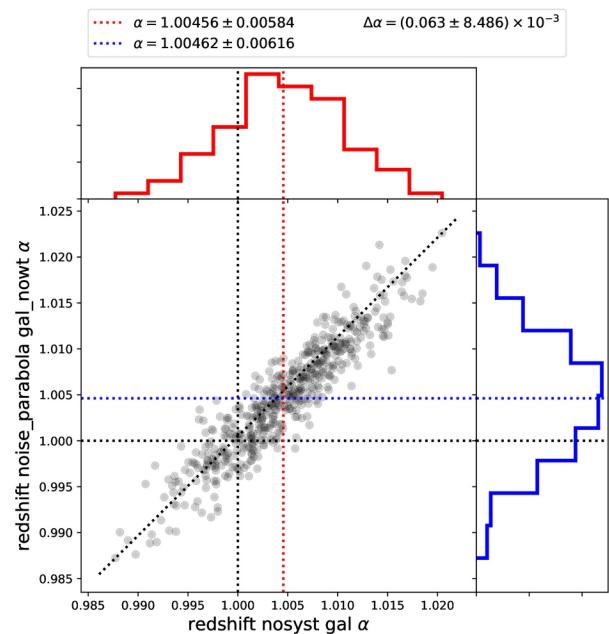


# Boxes fits redshift space: Smooth Comp.

Sigma distributions



# Boxes fits redshift space: Noisy Comp.



# Boxes fits redshift space: Noisy Comp.

Sigma distributions

