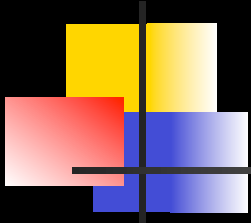


# Extended X-ray emission in CDFS

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**Alexis Finoguenov**

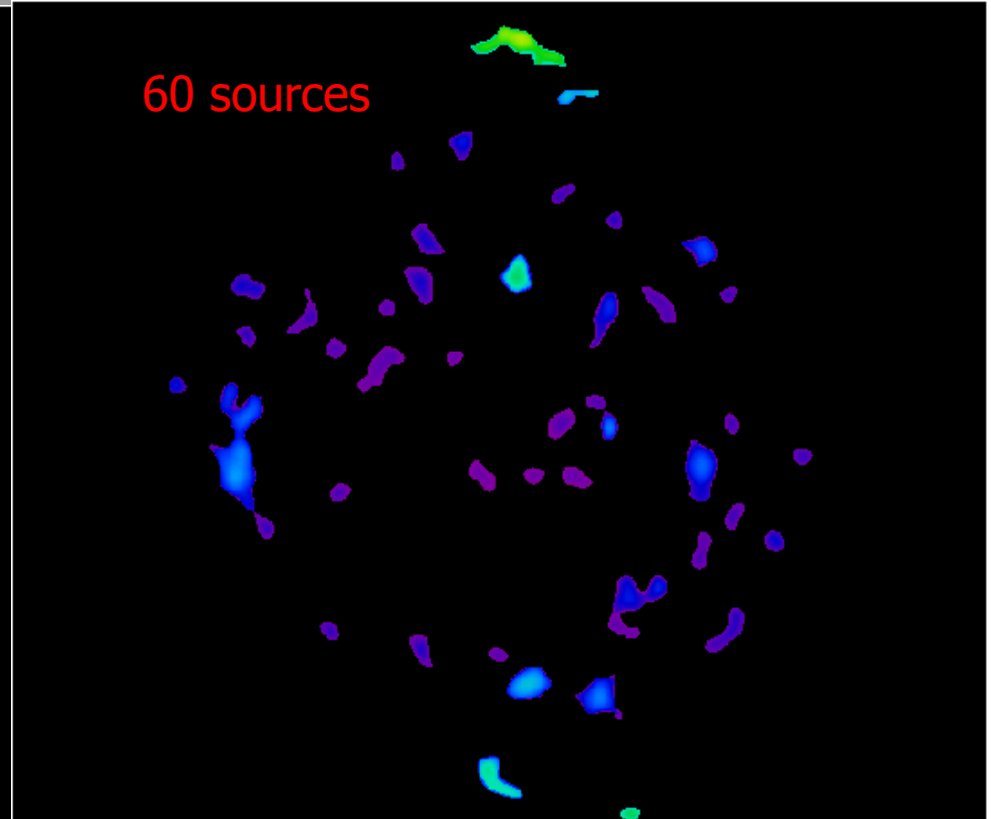
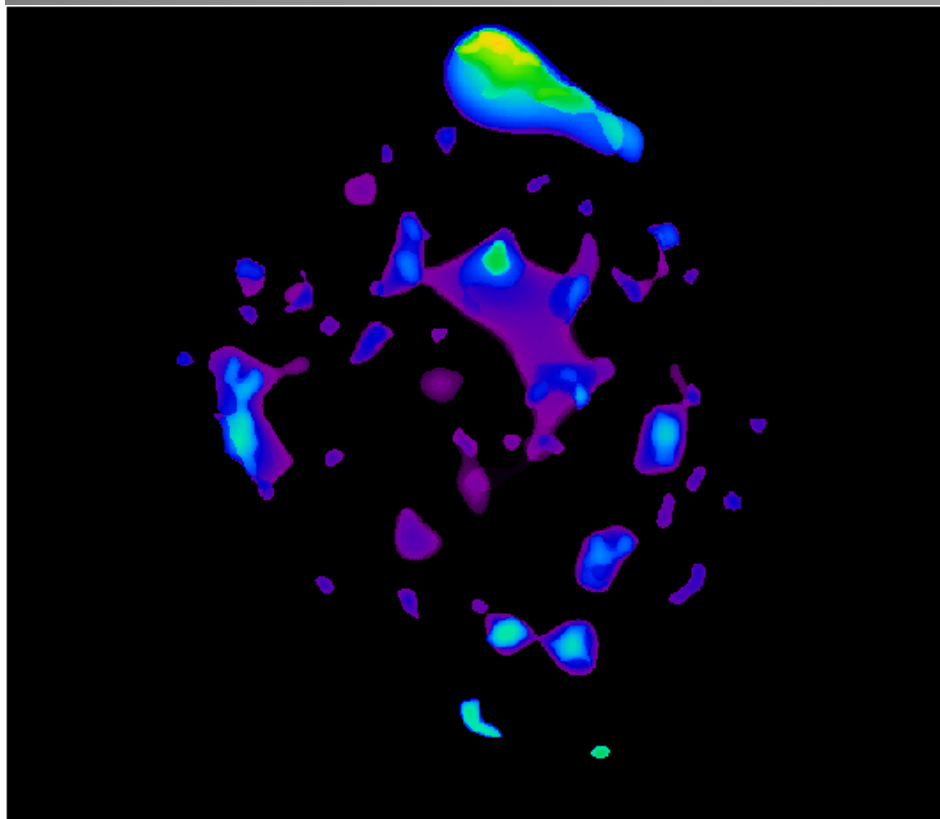
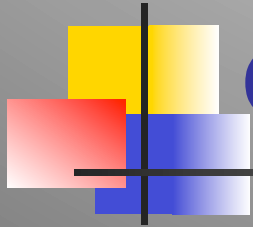
**MPE/UMBC**

**+**

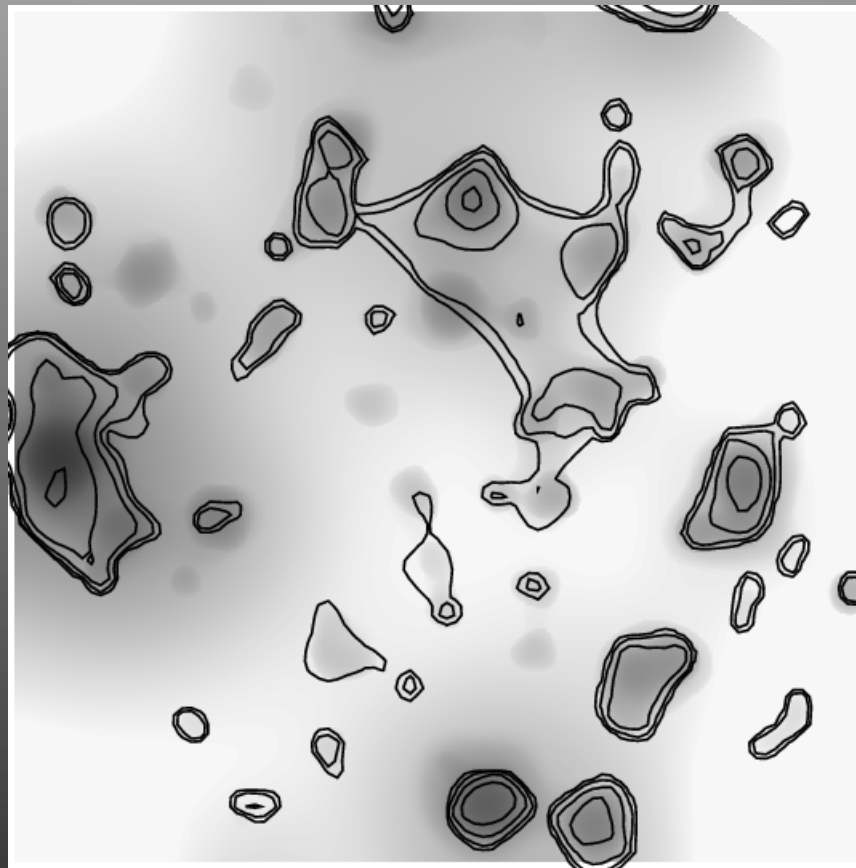
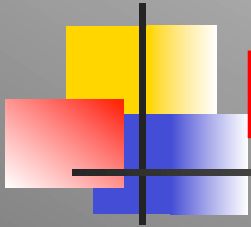
**M.Tanaka, V.Allevato, N.Cappelluti, M. Cooper,  
A.Choi, C.Heymans, D. Wilman, F.Ziparo, C.Schmid  
+ CDFS team**

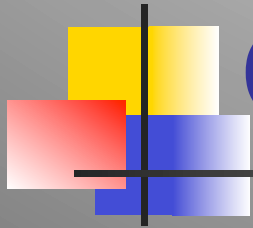
Fluctuations  
down to  $5 \times 10^{-17}$   
ergs/s/cm<sup>2</sup>

# Arcminute spatial scales are confused

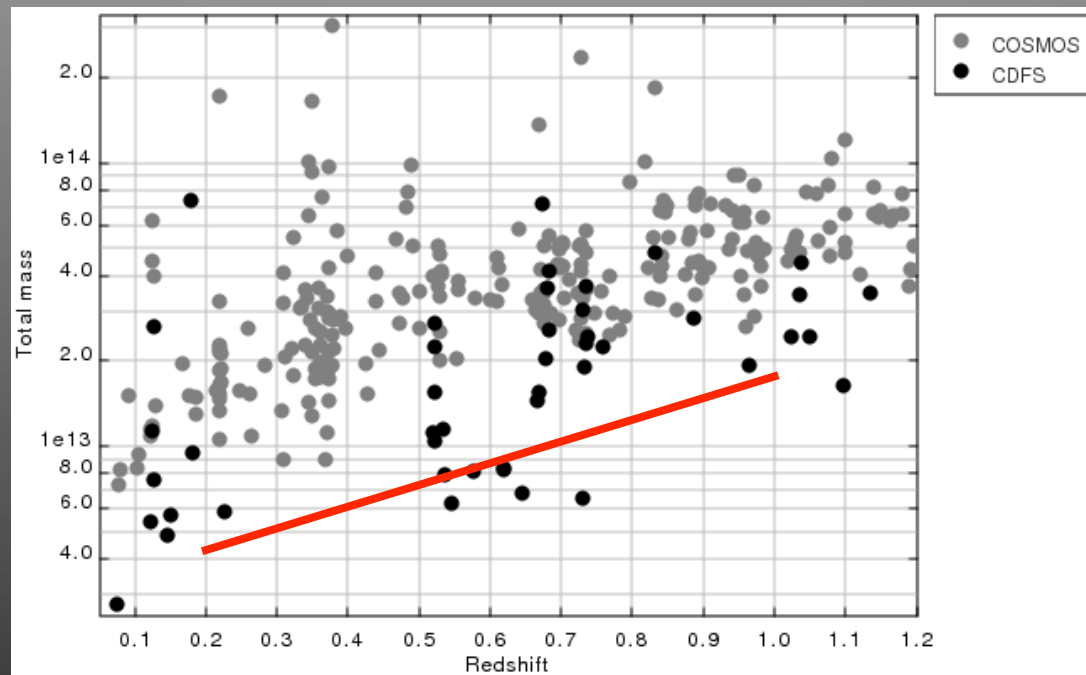


# Confusion due to overlapping profiles of galaxy groups

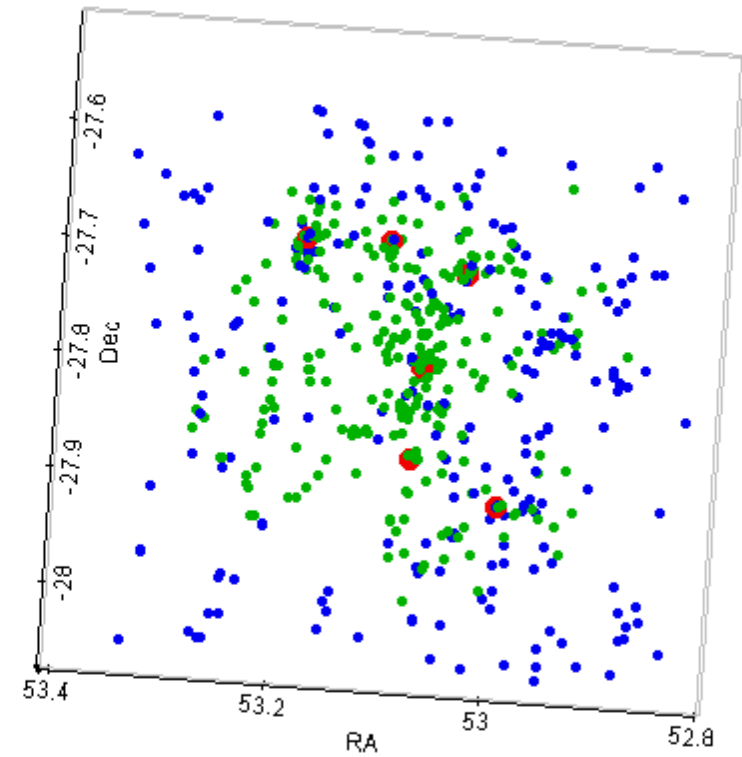
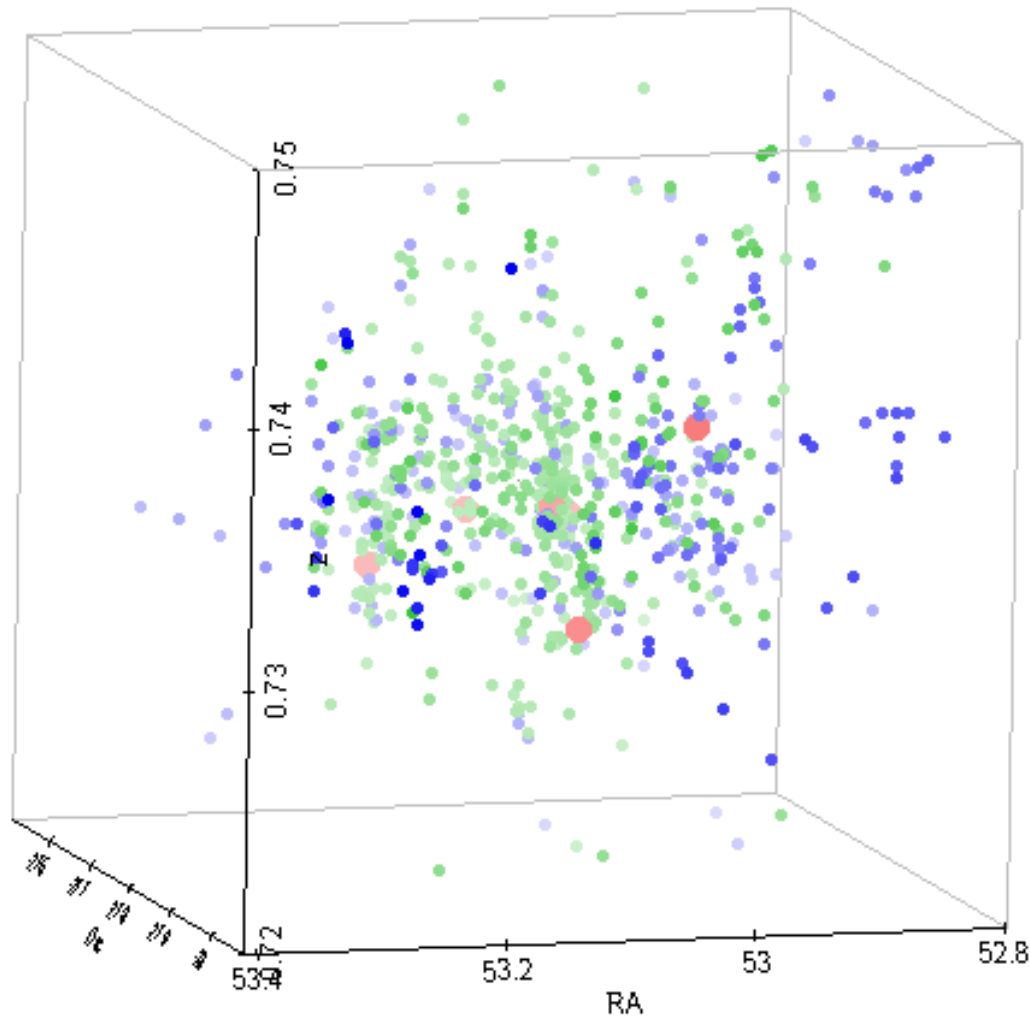




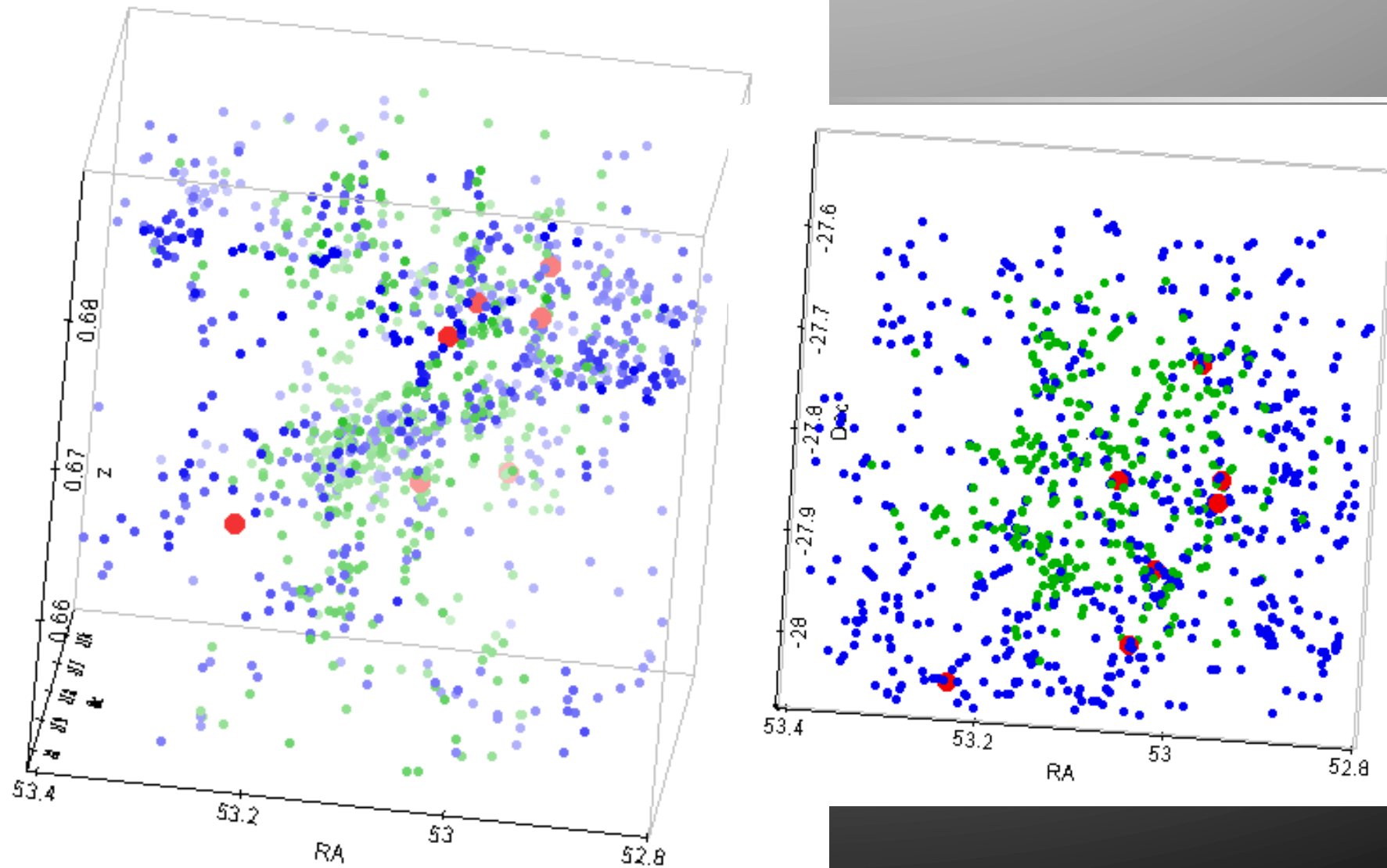
# CDFS vs COSMOS



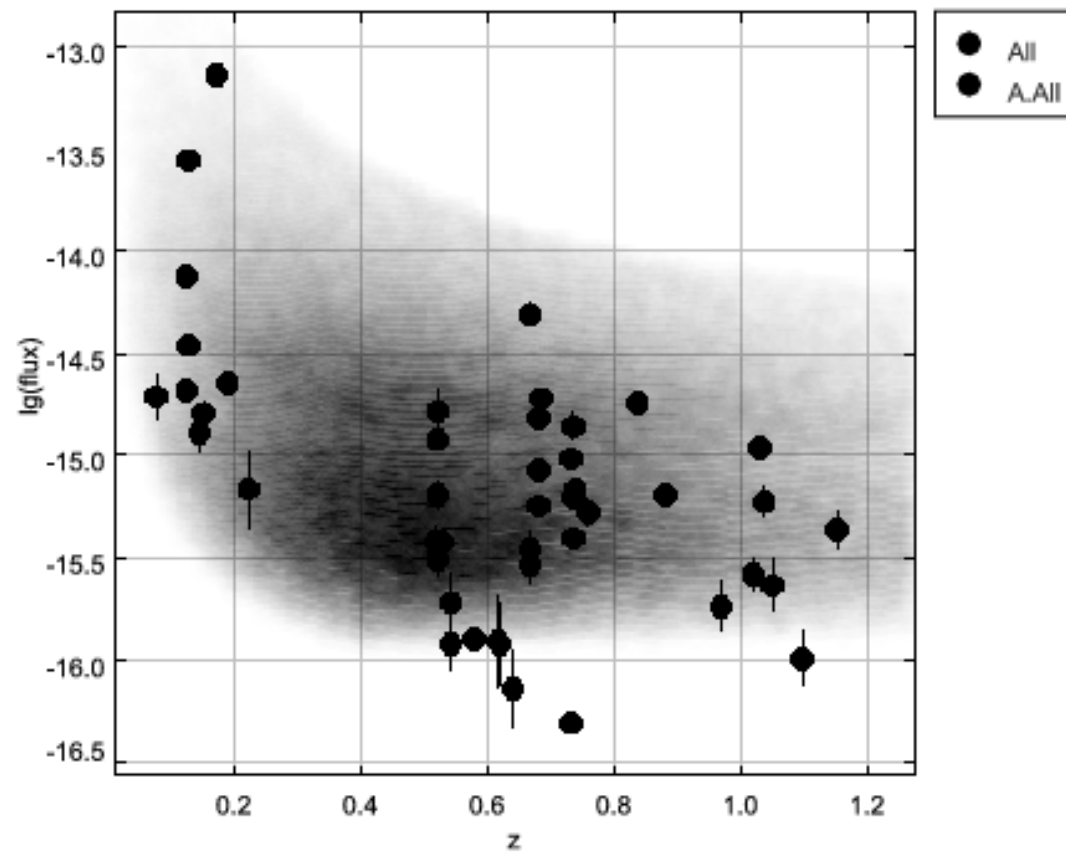
# LSS $\sim 0.73$



# LSS at 0.67

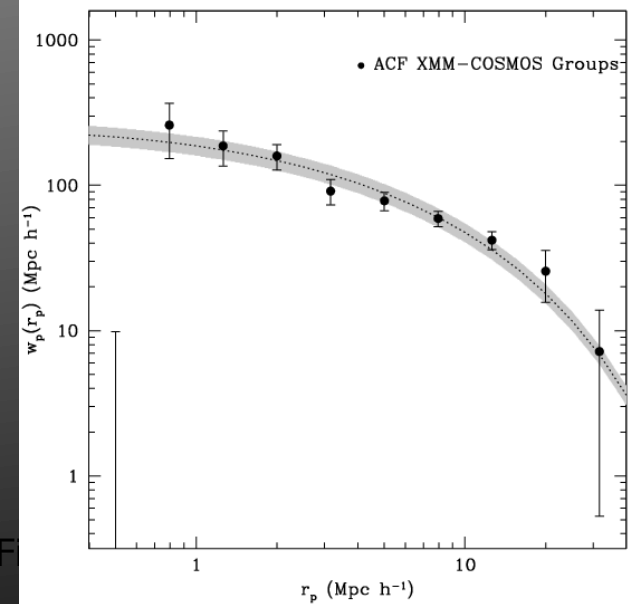
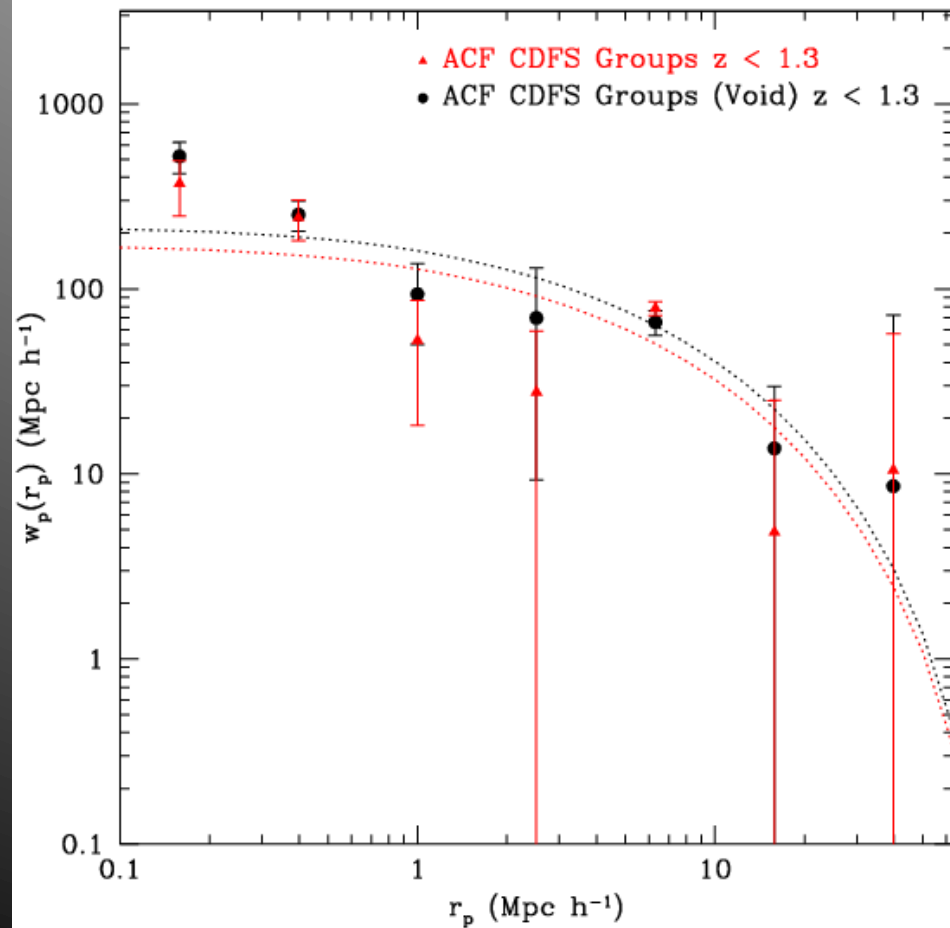


# Random catalog



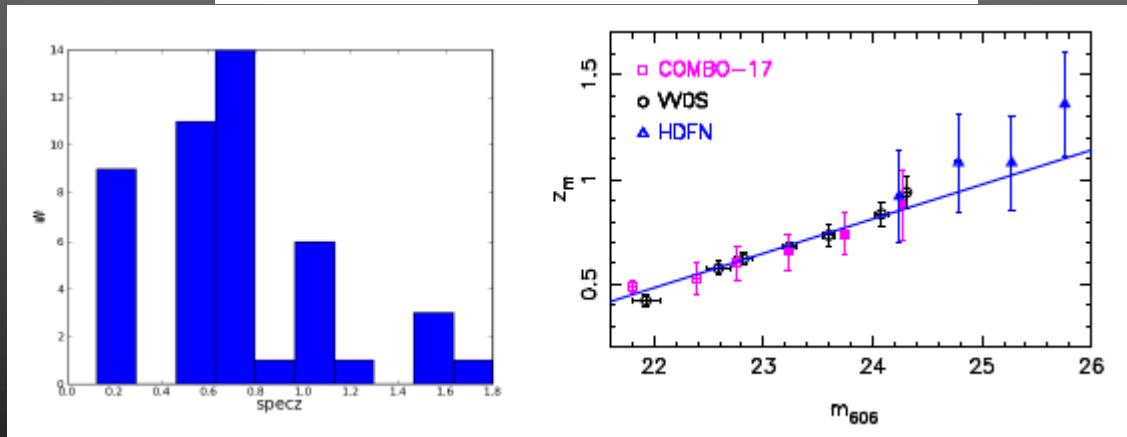
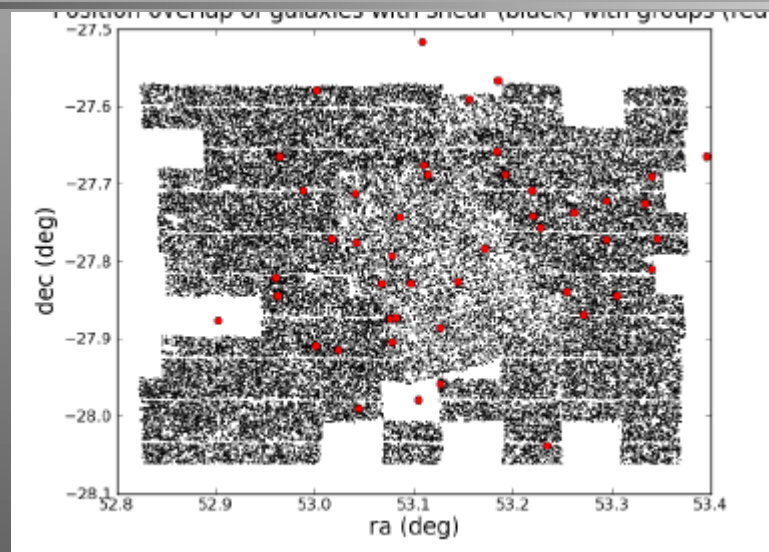


# ACF of galaxy groups

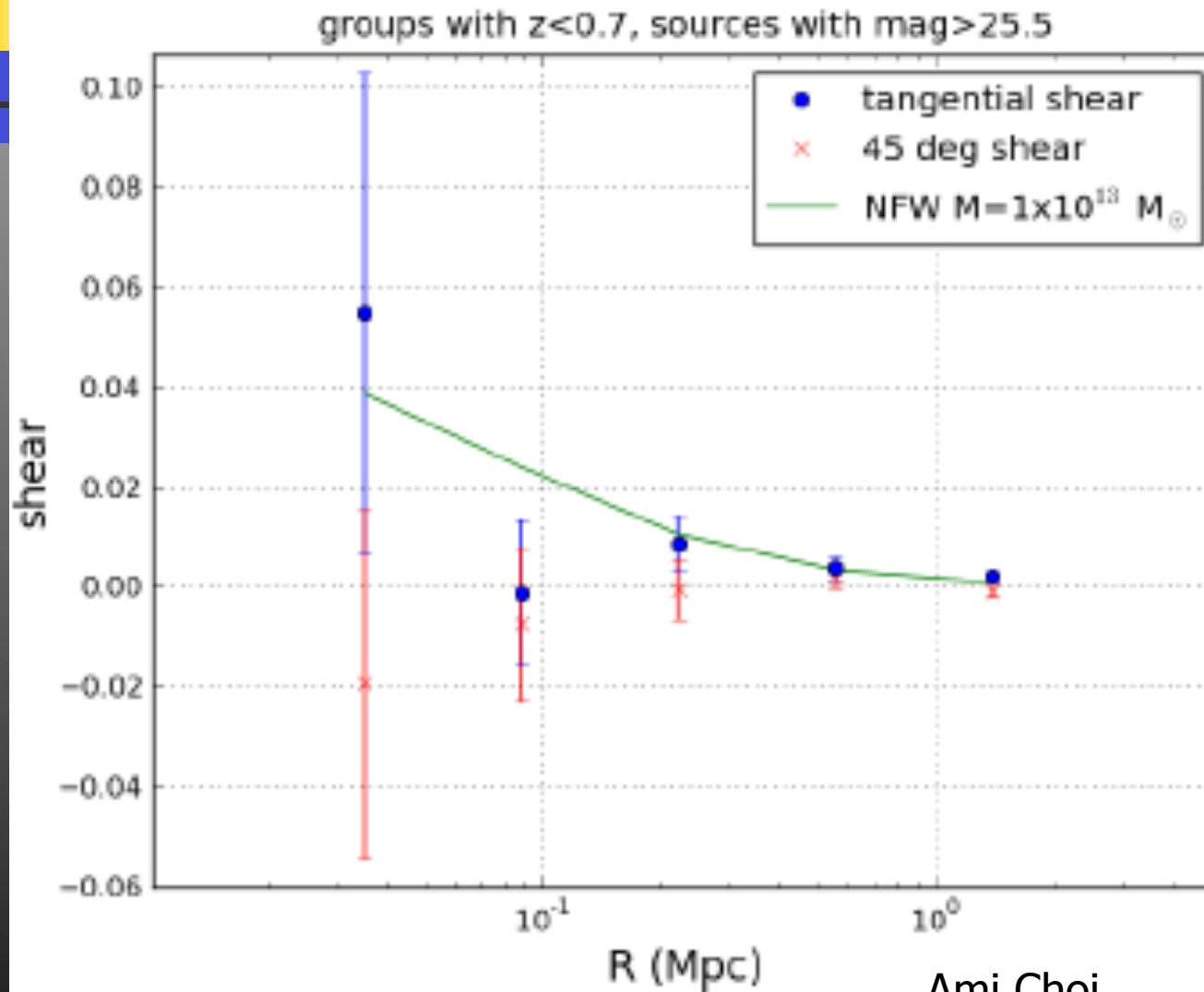




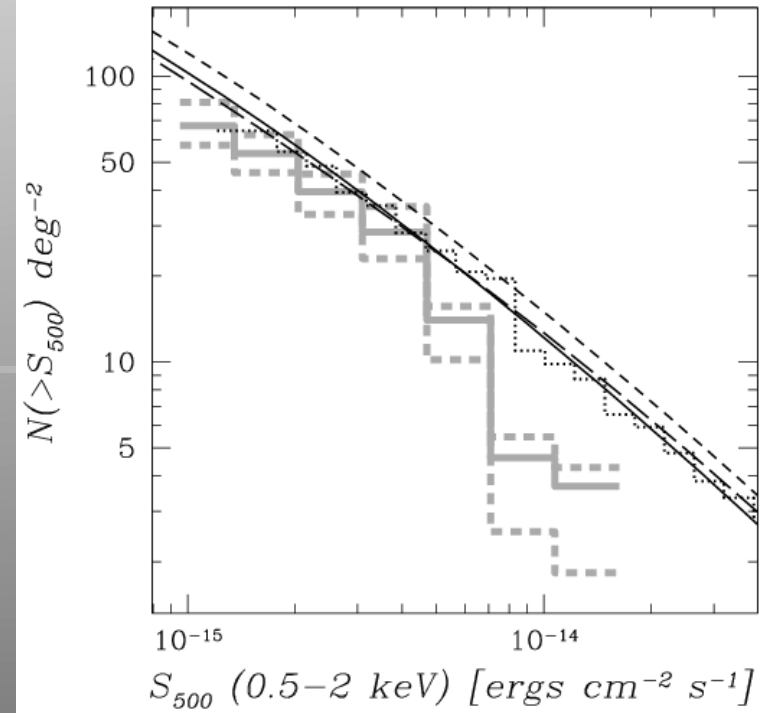
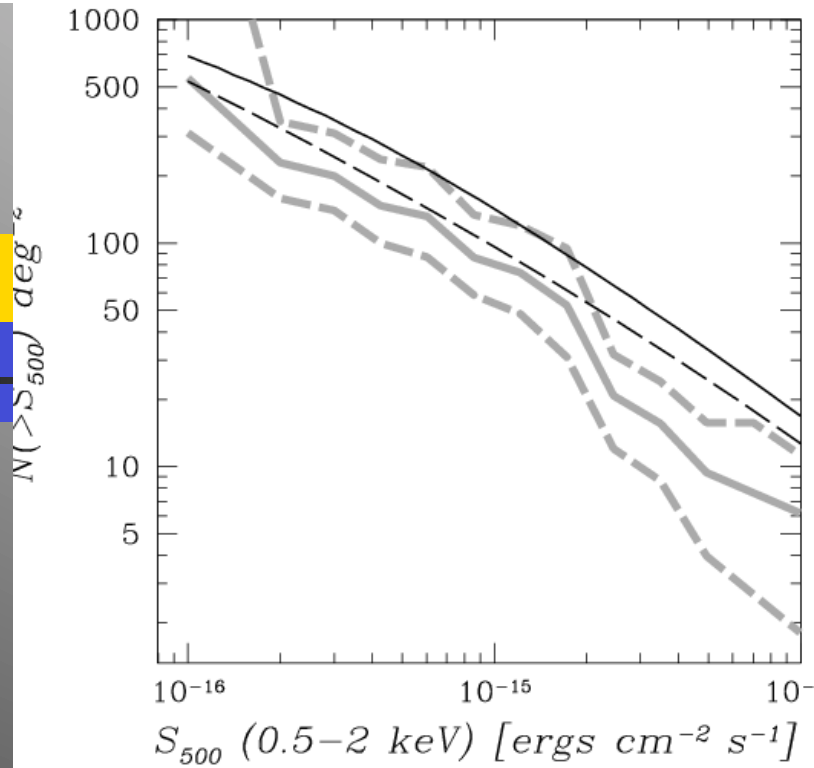
# GEMS



# Lx-Mass from weak lensing

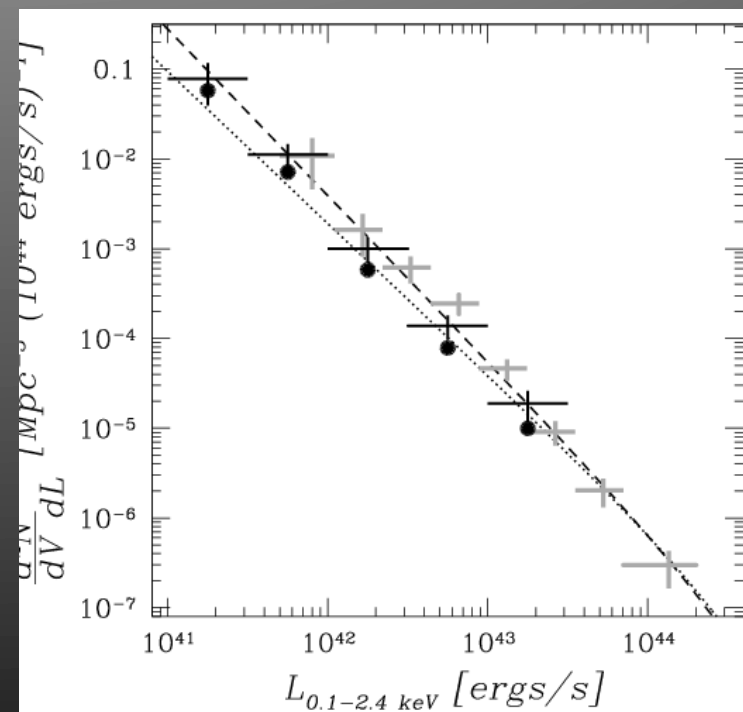


Ami Choi

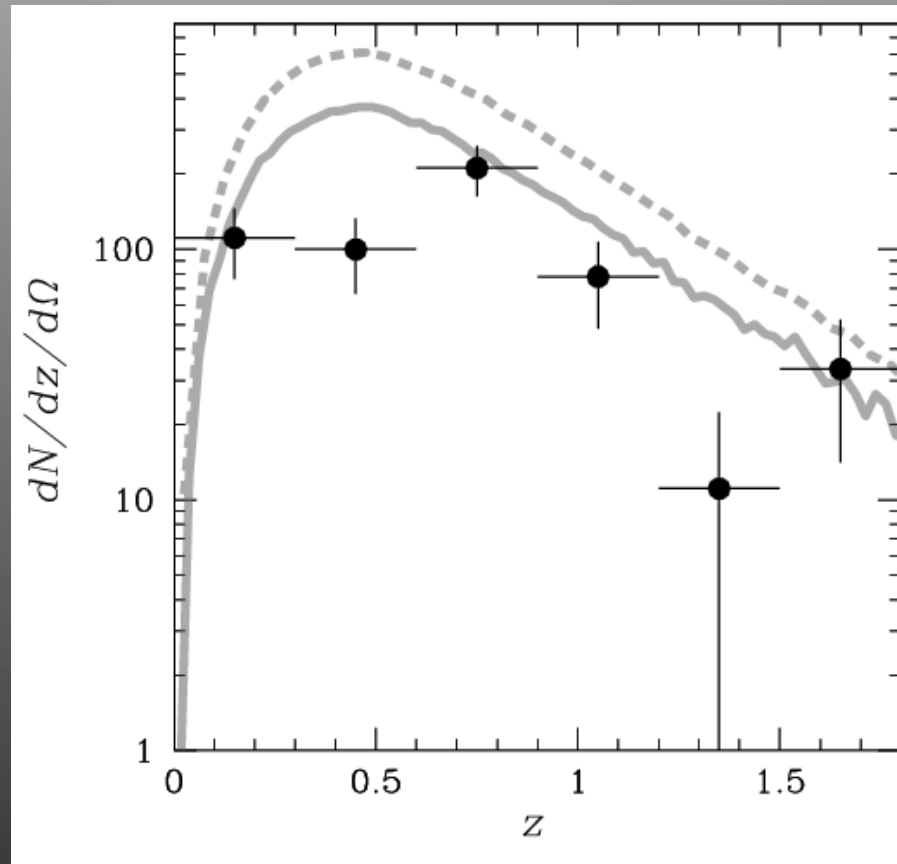


## Groups vs LCDM

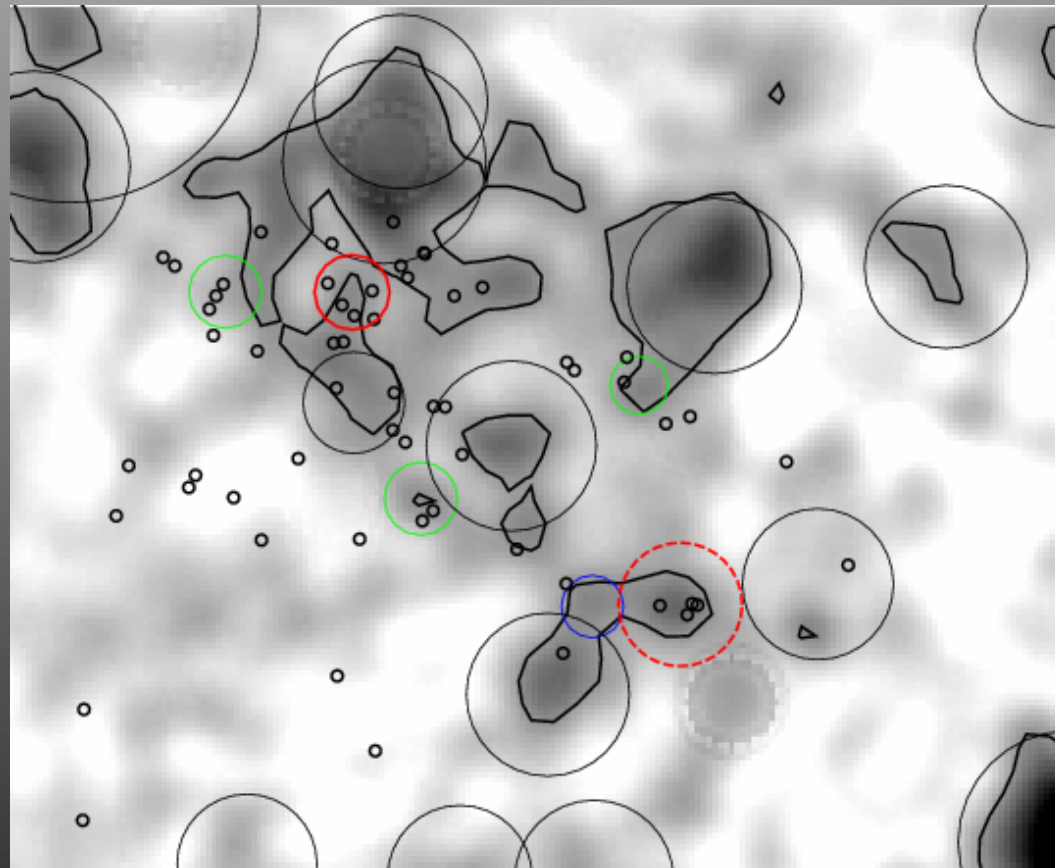
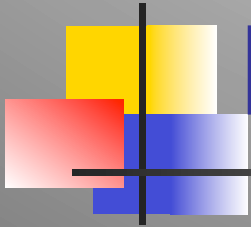
Finoguenov et al. 2010



# $dn/dz$ – the void is $< 0.6$



# Kurk supercluster: just a bunch of groups





# Conclusions

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- **CDFS delivered a very unique catalog of galaxy groups, probing the interestingly low halo masses.**
- **We have compared the mass calibration with the weak lensing signal and the clustering, finding a good agreement**
- **Statistics of CDFS is consistent with LCDM, once we remove the void or stay above  $z > 0.6$**
- **Confusion makes identification a hard work and it might be incomplete at low S/N**
- **LSS at  $z = 1.6$  is detected with 6 groups in the 2-3  $10^{13} M_{\text{sun}}$  range**