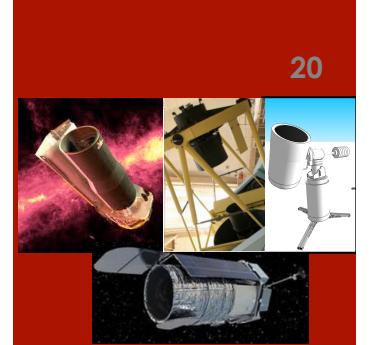
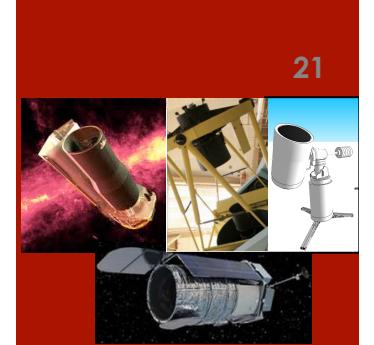


# Scenario IV: Long-lived Radio Transient



# Suite of Radio Surveys

- EVLA Mapping Mode: centimeter mapping
- LOFAR, MWA and LWA: meter and decameter-mapping
- Apertif, Meerkat and Askap: decimetric mapping

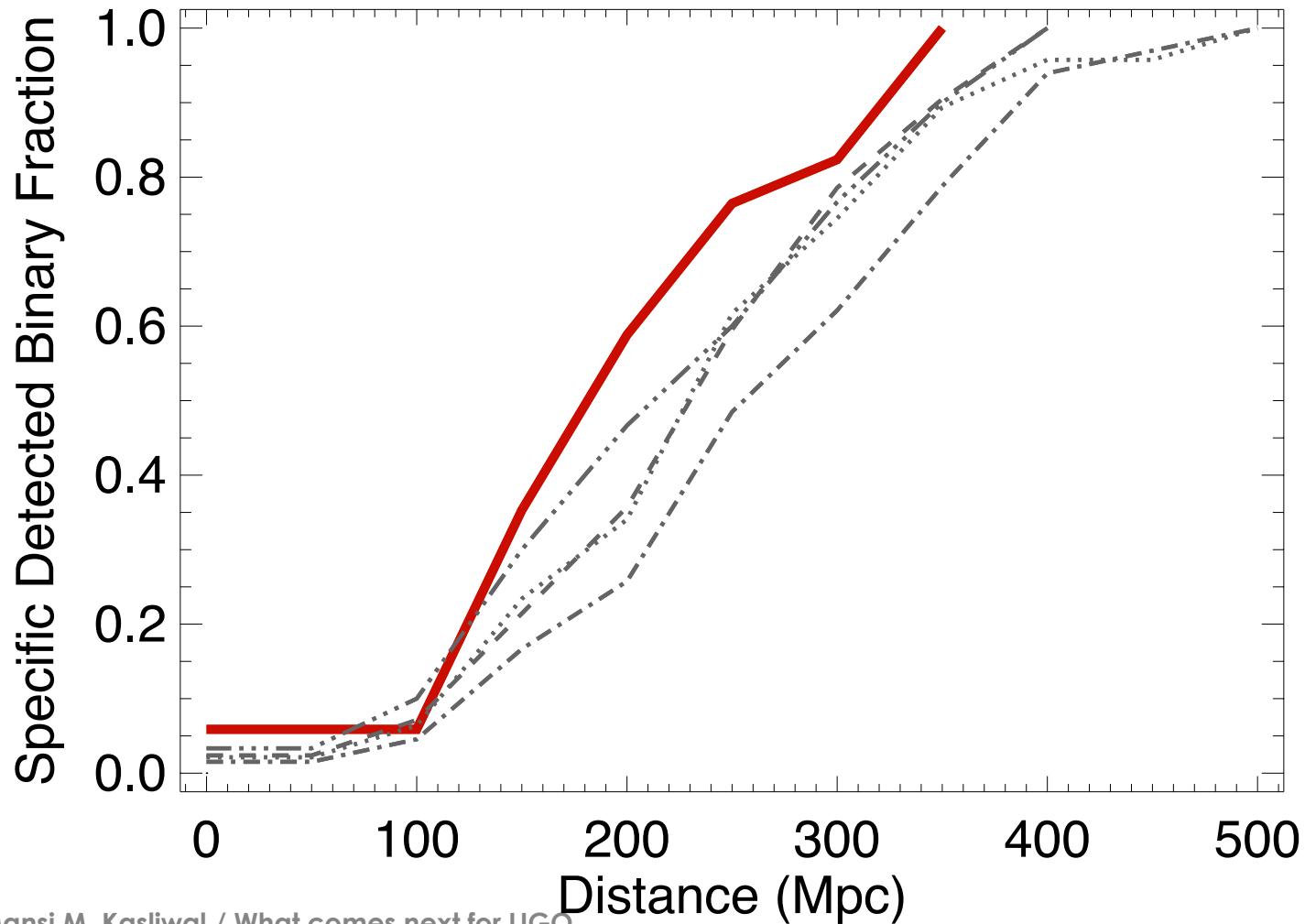


# Independent of Scenario, Need a Complete Galaxy Catalog!

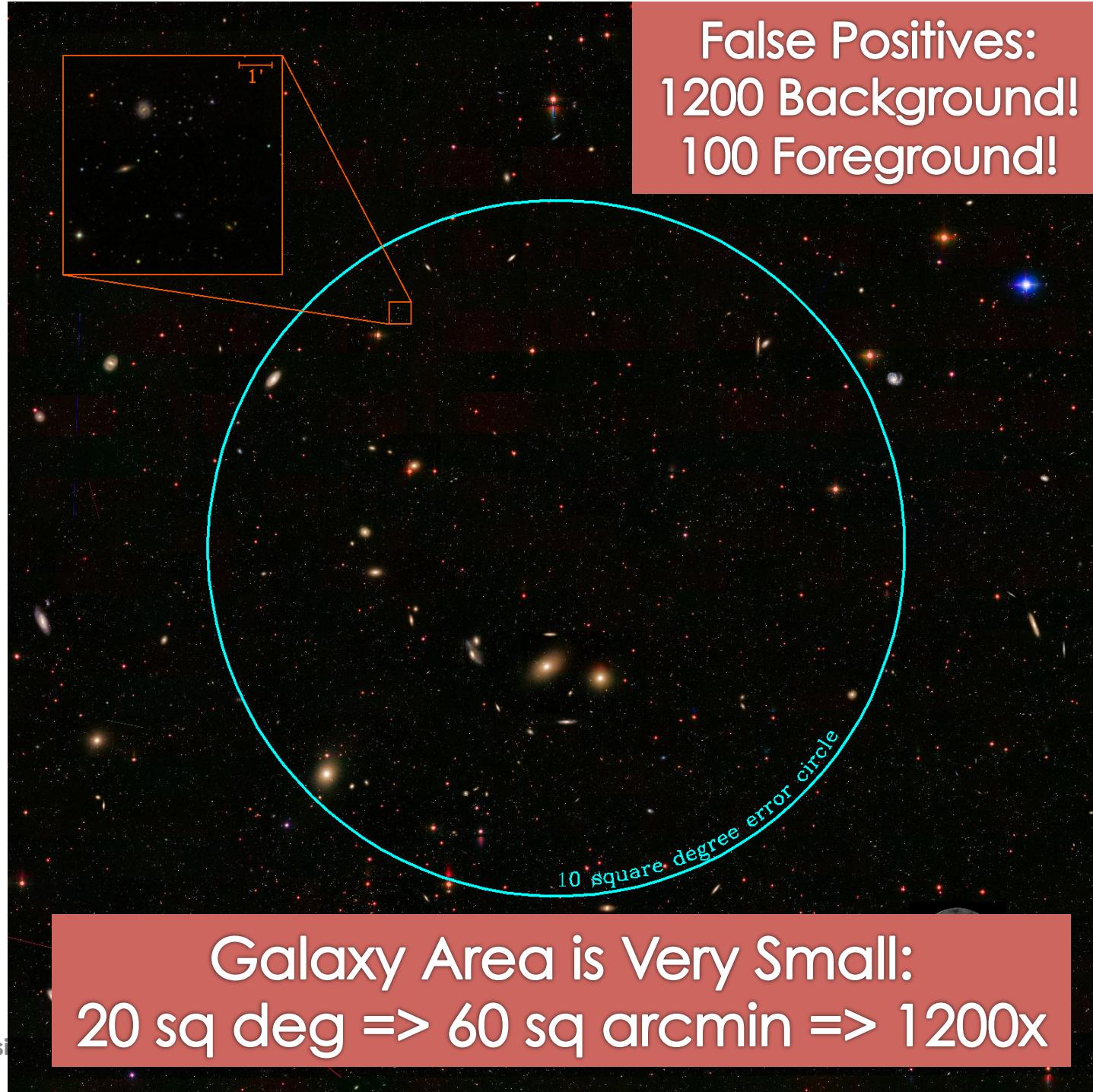
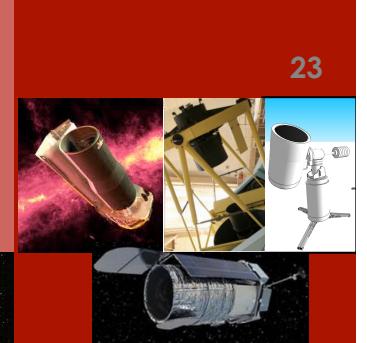
See Neil's Talk and Jonah's Talk



# The Local Universe



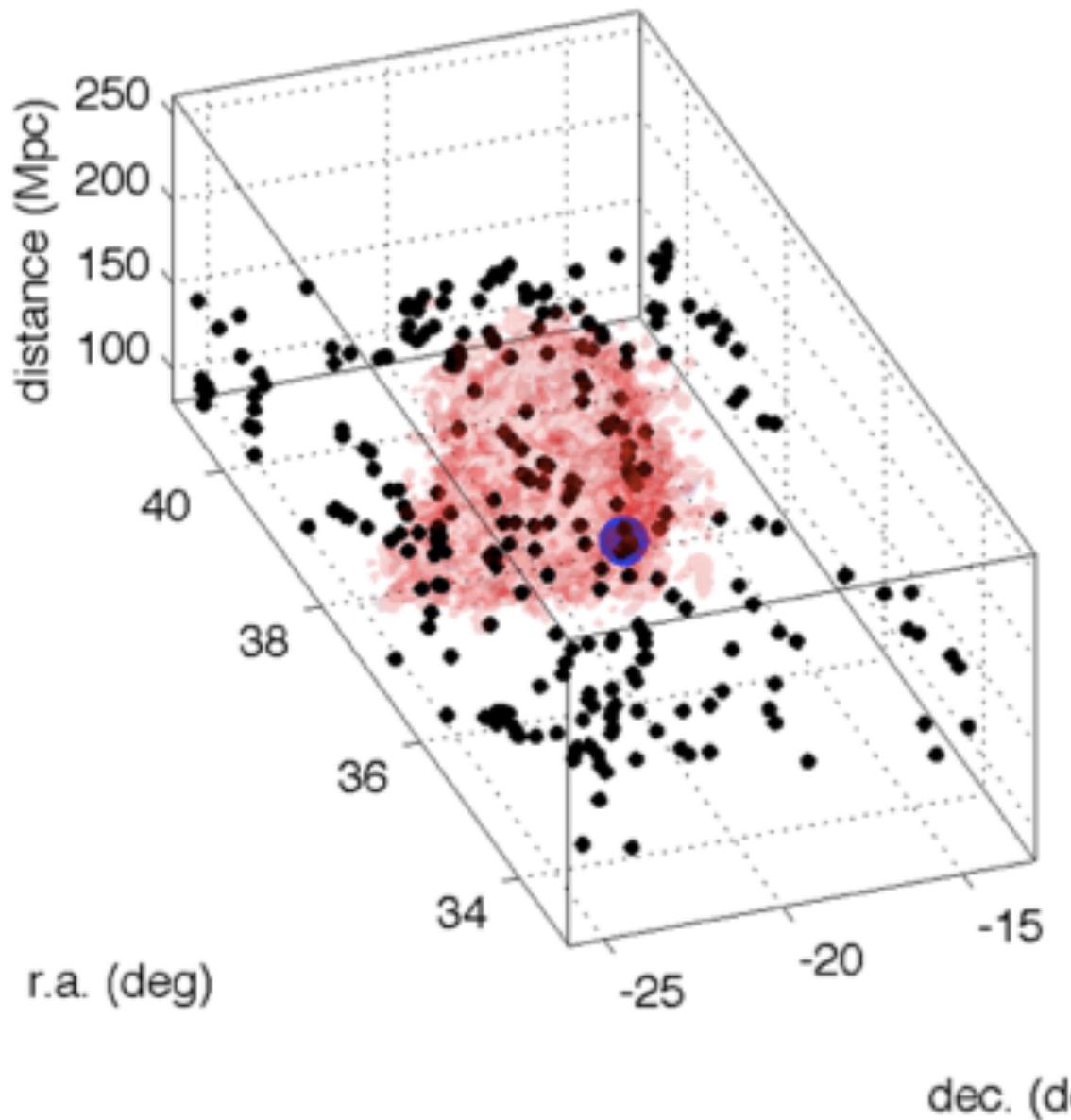
False Positives:  
1200 Background!  
100 Foreground!



Nissanke, Kasliwal & Georgieva 2012  
Kulkarni & Kasliwal 2009



# Localization Volumes



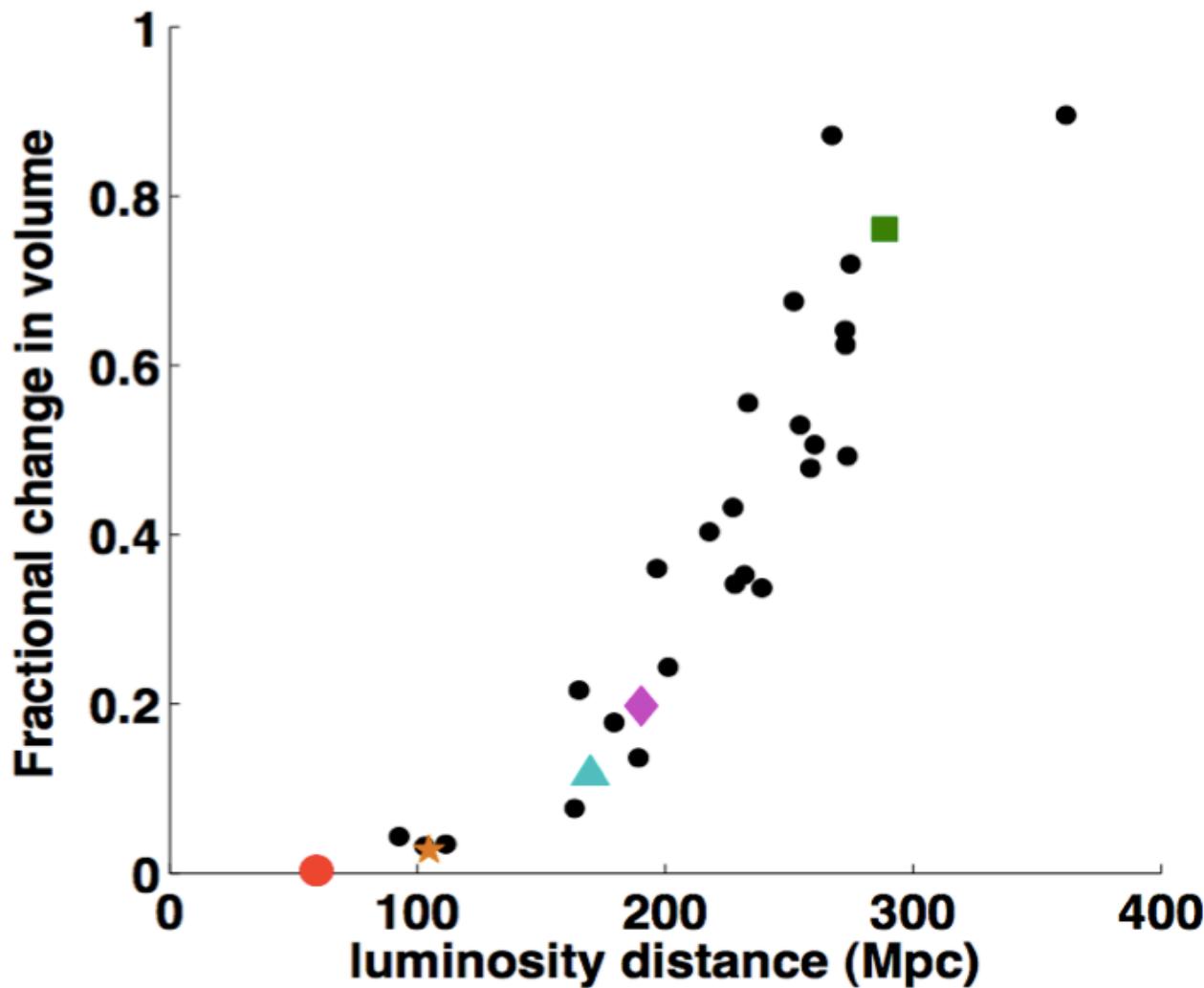
LIGO + VIRGO +  
KAGRA + INDIA

228 galaxies →

37 galaxies

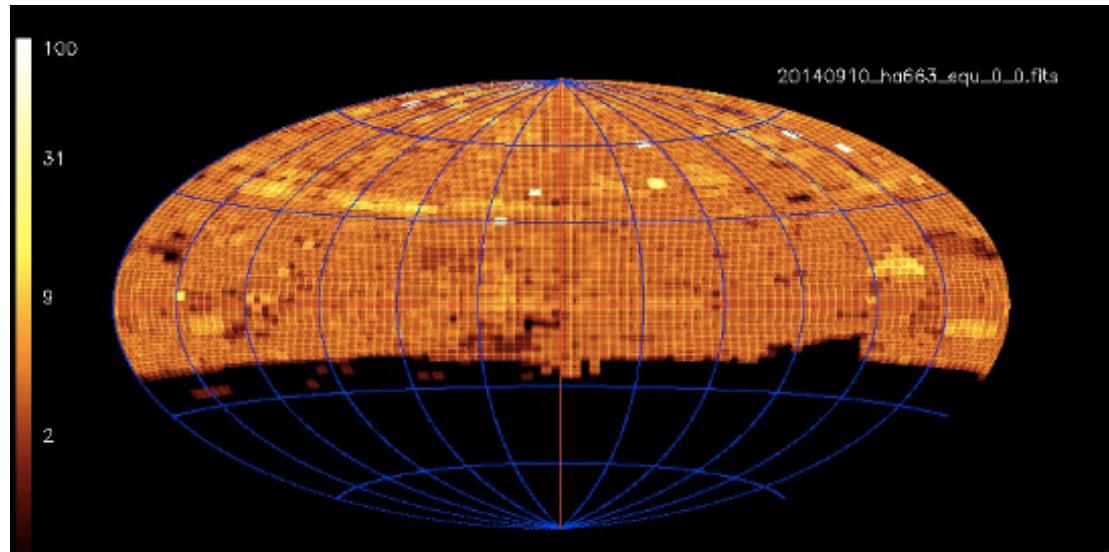


# How many fewer galaxies?



Nissanke, Kasliwal & Georgieva 2012

# Efforts underway to complete galaxy catalog

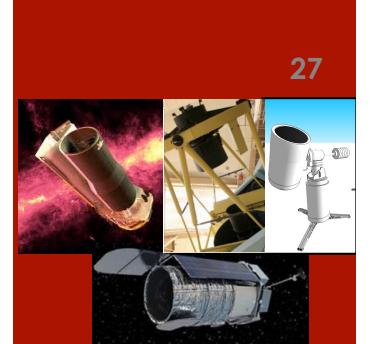


H $\alpha$ : Census of Local Universe  
(Palomar Transient Factory)



HI: e.g. Wallaby Survey  
(ASKAP; Koribalski 2012b)





# Summary

- Scenario I: Seconds-timescale X-ray burst
  - Need all-sky high-energy monitoring
- Scenario II: Hour-timescale Optical Flash
  - Need big data software algorithms
  - Need international network for prompt follow-up
- Scenario III: Week-timescale Infrared Transient
  - Need wide-field infrared instrumentation funding
- Scenario IV: Month-timescale Radio Transient
- Scenario Independent:
  - Need CLU Galaxy Catalog



Thank You