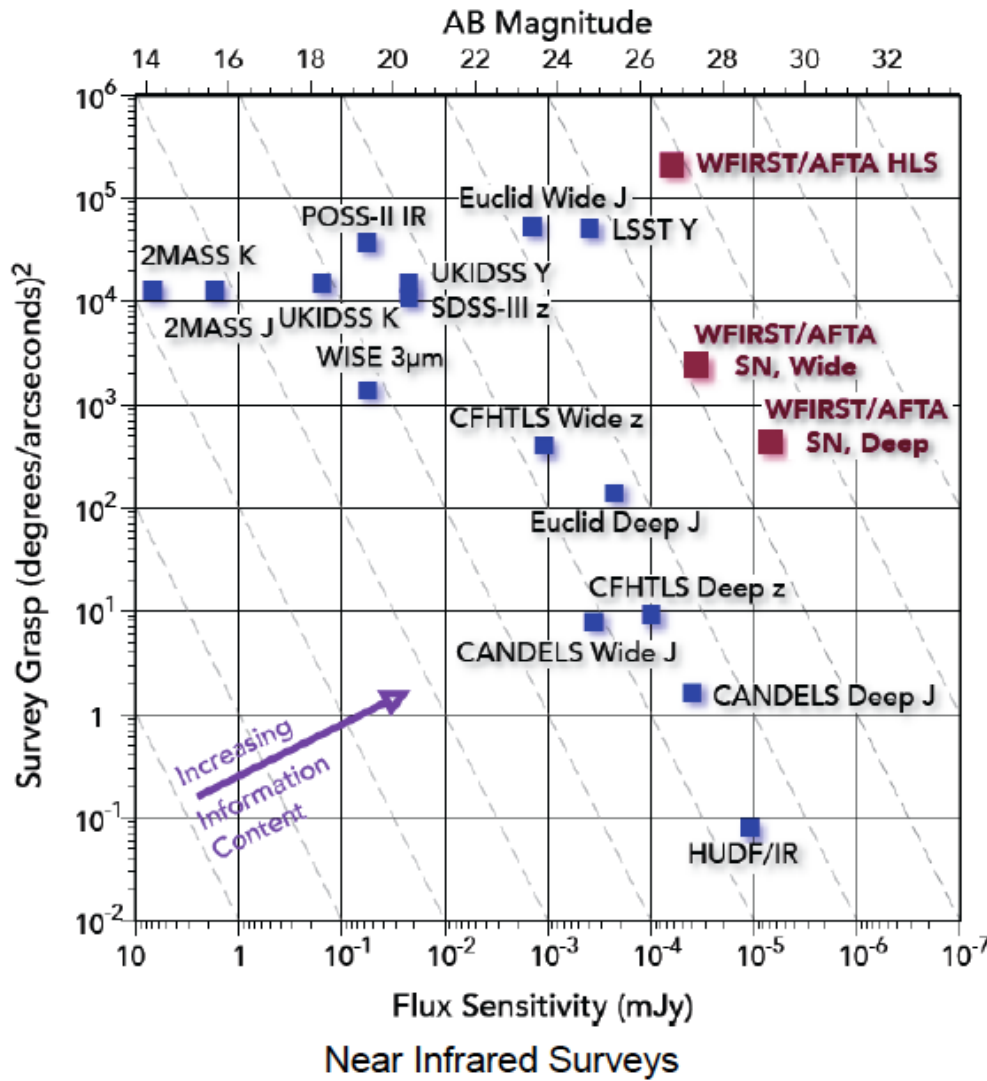


# Community Research Support: Existing IR Surveys

Vandana Desai





WFIRST will be revolutionary.

What is the role of existing IR surveys?

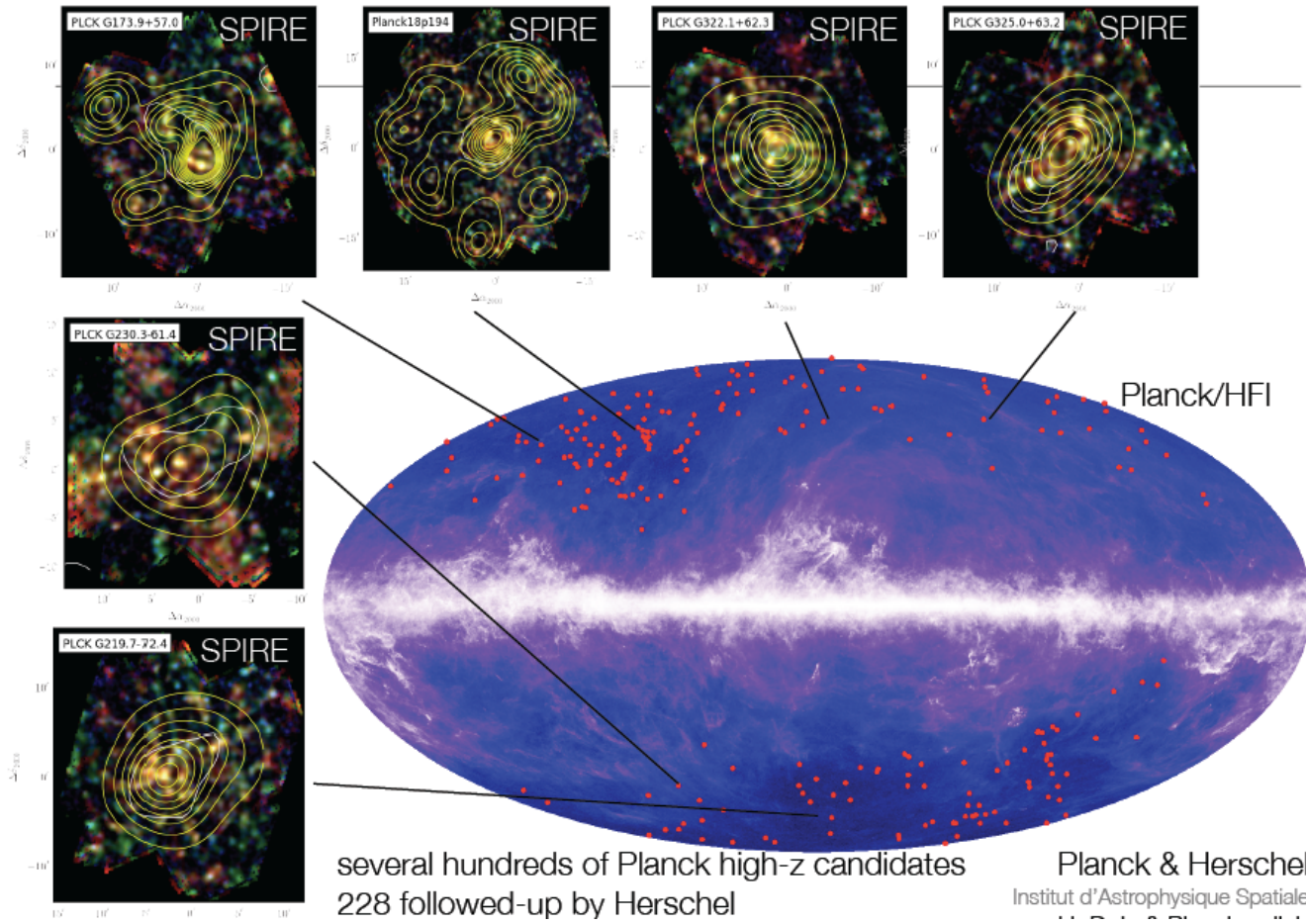


# Existing Surveys will feed WFIRST GO program



- Spitzer is still taking data - Peter Capak's talk
- Harry Ferguson has noted that long wavelength coverage would be a boon to the "for free" beyond the local group science.

# WFIRST GO: $z \sim 2$ clusters selected by star forming galaxies



several hundreds of Planck high-z candidates  
228 followed-up by Herschel

Planck & Herschel  
Institut d'Astrophysique Spatiale



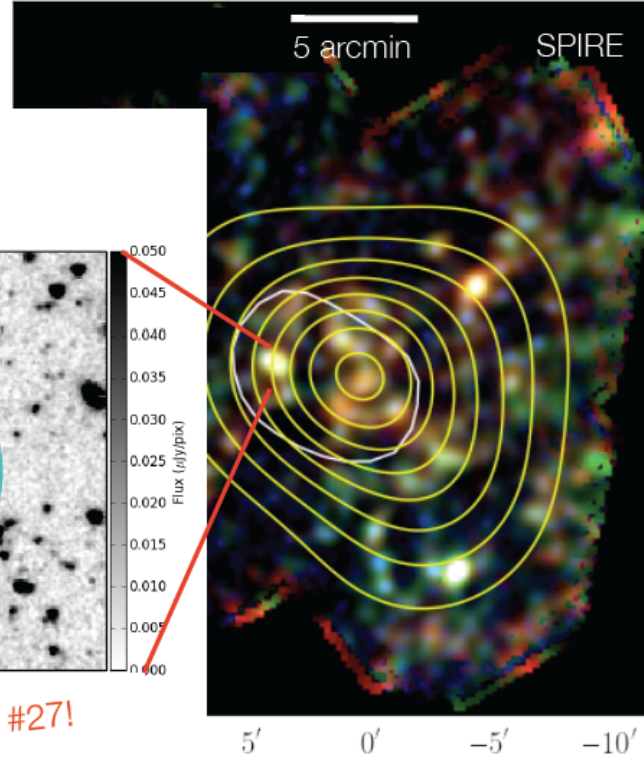
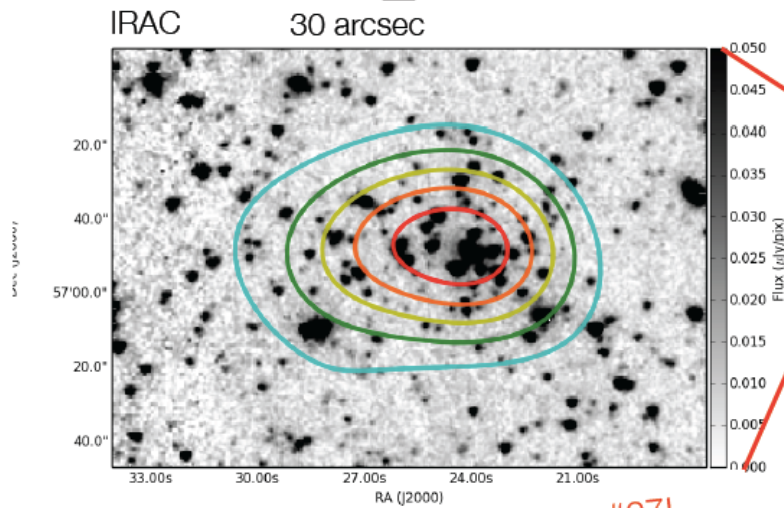
Talk by H. Dole and poster by C. Martinache  
Also related: talk by S. Mei



# WFIRST GO: $z \sim 2$ clusters selected by star forming galaxies

Herschel-SPIRE  
3-color image:  
blue = 250um  
green = 350um  
red = 500um

Euclid will provide this kind of  
sensitivity over the whole sky !  
JWST and WFIRST much  
better, on smaller sky areas !



See Clément Martinache's poster #27!



# WFIRST GO: $z > 1.5$ clusters selected by passive galaxies

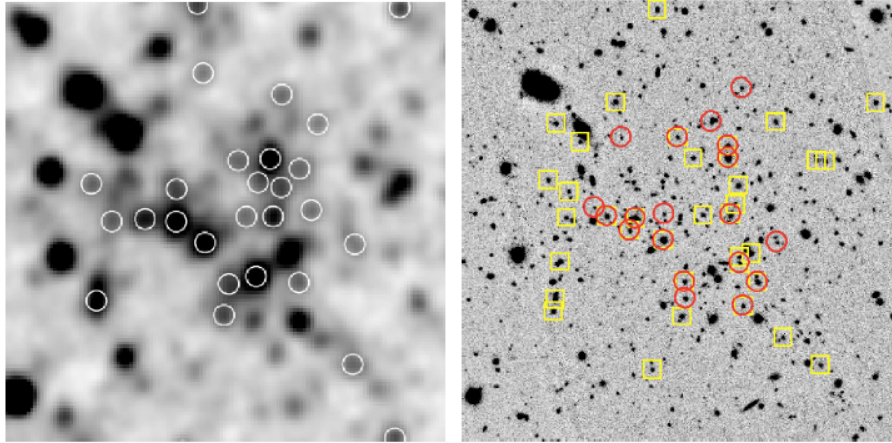
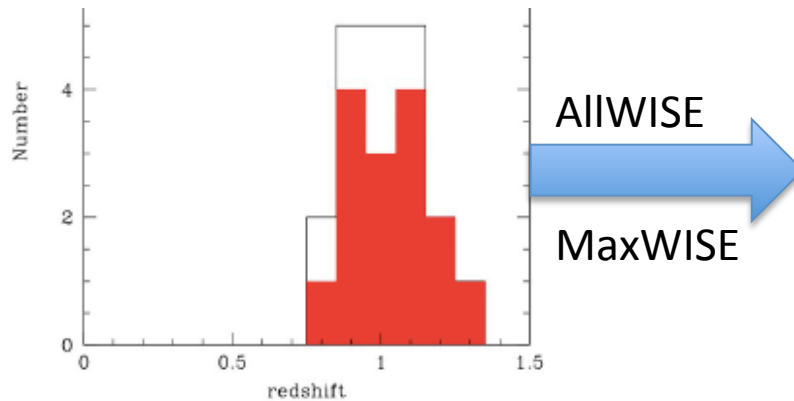


Fig. 1n.— MOO 1514+1346,  $z = 1.06$ , as above; W1 image on the left,  $z$ -band image on the right.

## MaDCOWs:

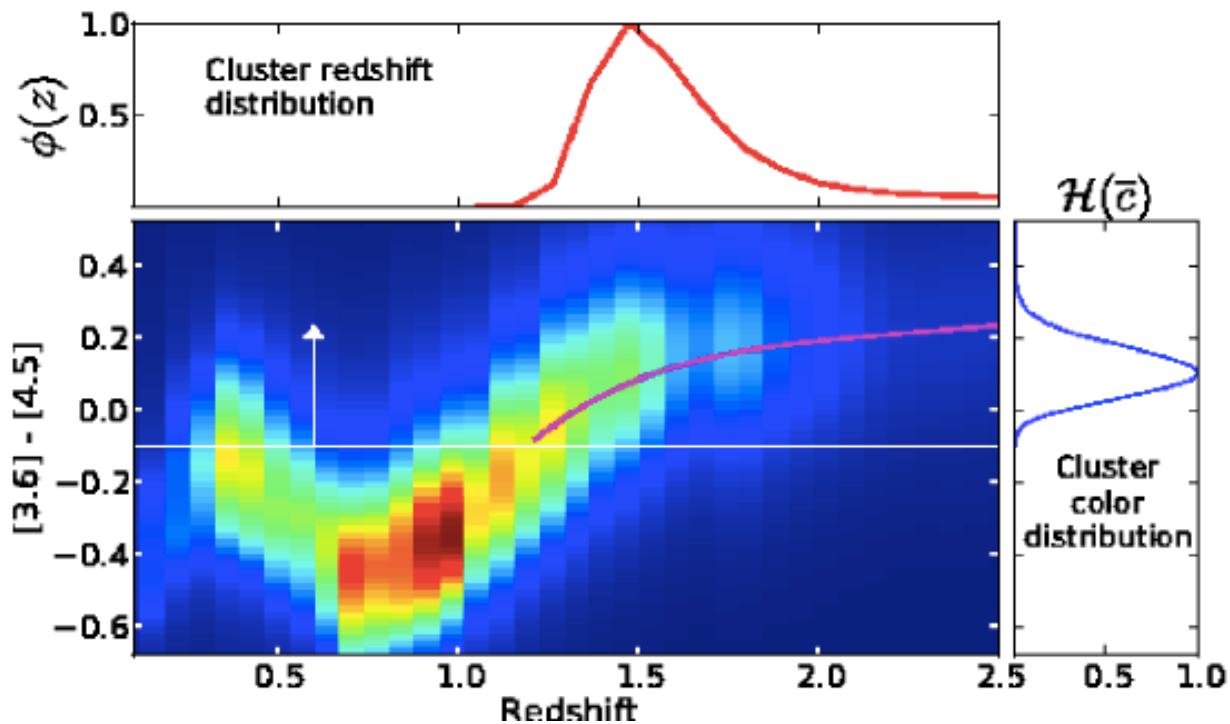
- WISE+SDSS
- WISE  $\rightarrow$  AllWISE
- SDSS  $\rightarrow$  DES



Talk by P. Eisenhardt



# WFIRST GO: $z > \sim 1.5$ clusters selected by passive galaxies



Talk by A. Returra



# Meet the Neighbors

The Spitzer Local Volume Legacy Survey

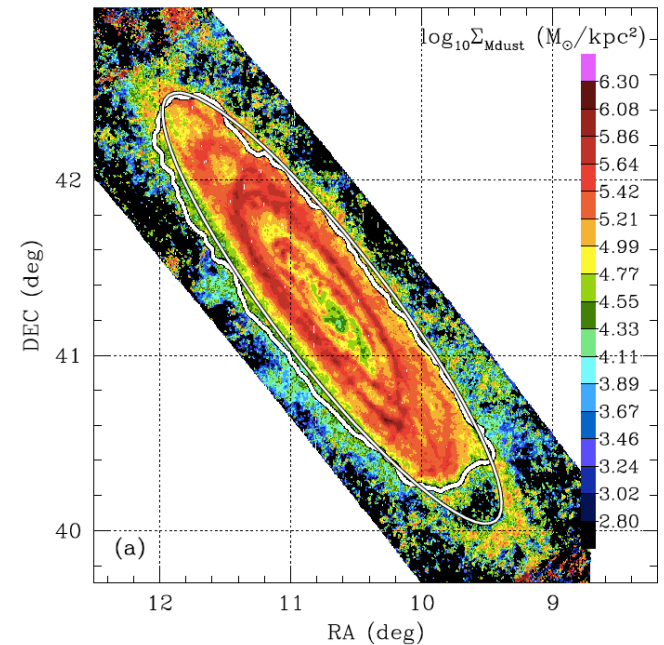


Spitzer Local Volume Survey

# WFIRST GO: Local Galaxies

Talk by Dan Weiss

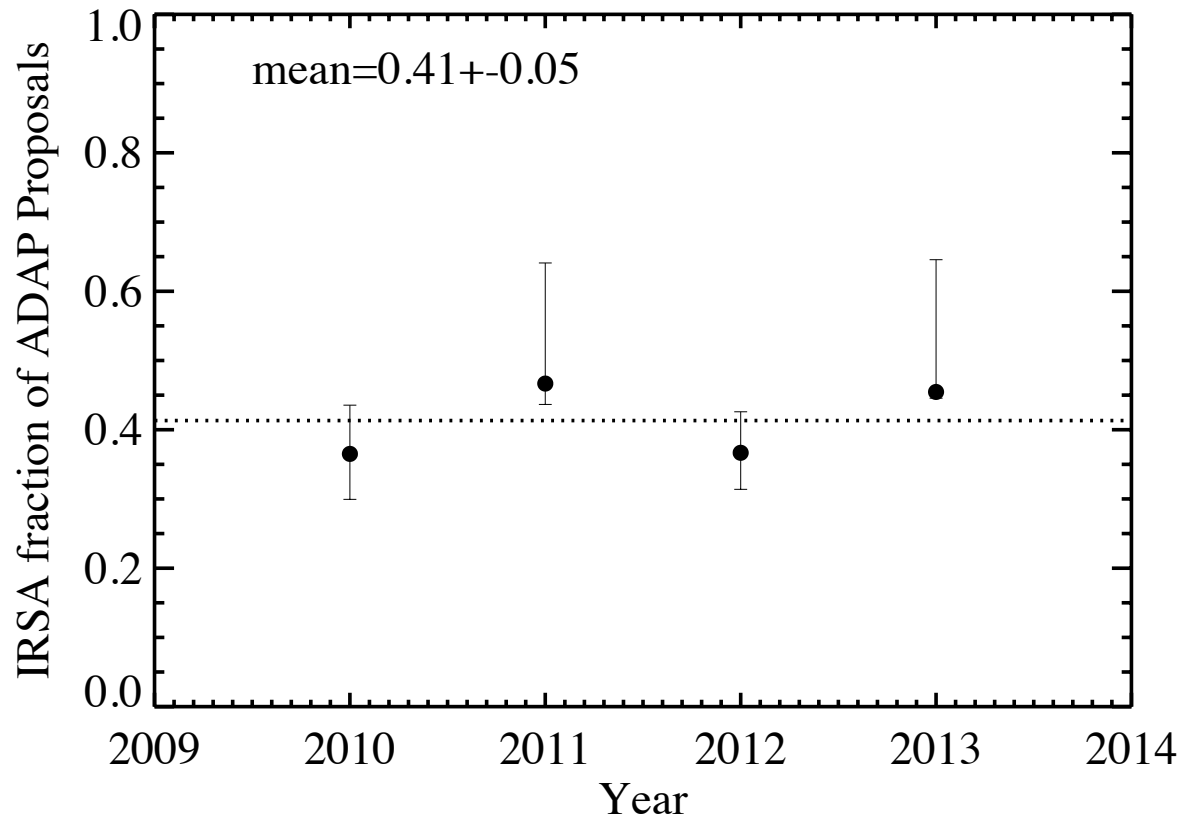
Spitzer, Herschel imaging and spectroscopy provide long wavelength foundation for GO programs.



Draine et al. 2014



# Continued funding for archival research will be important



# Community Needs

- Virtual Observatory
  - Complete metadata
    - Time domain
    - Multiwavelength analyses
  - Supports independent software development
- Grappling with Big Data
  - Visualization of images AND catalogs at the archive
  - Analysis at the archive
  - Personalization
- Supporting time domain/precovery for the future
- Support for Contributed Enhanced Products
- User Support (helpdesk)