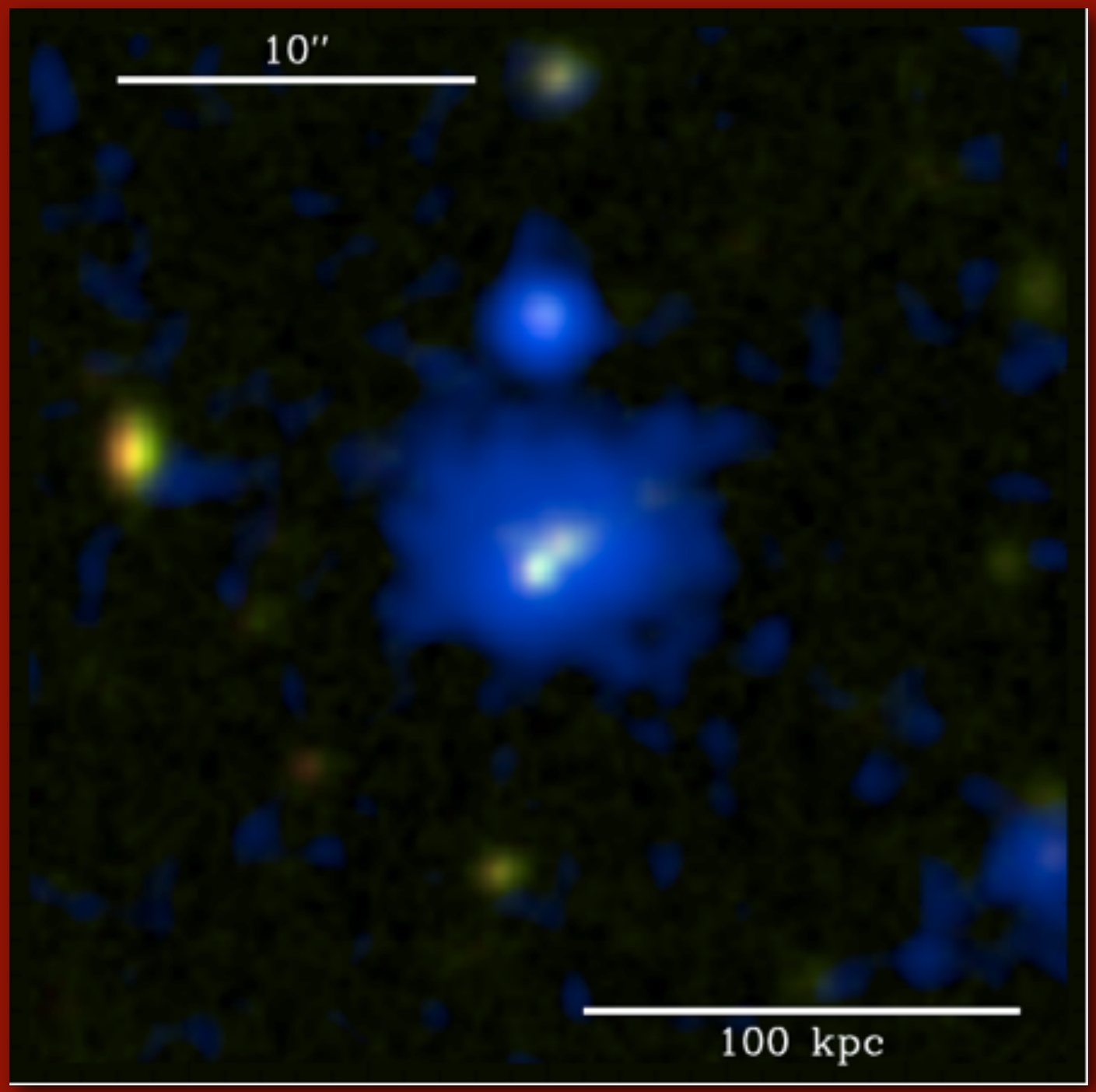
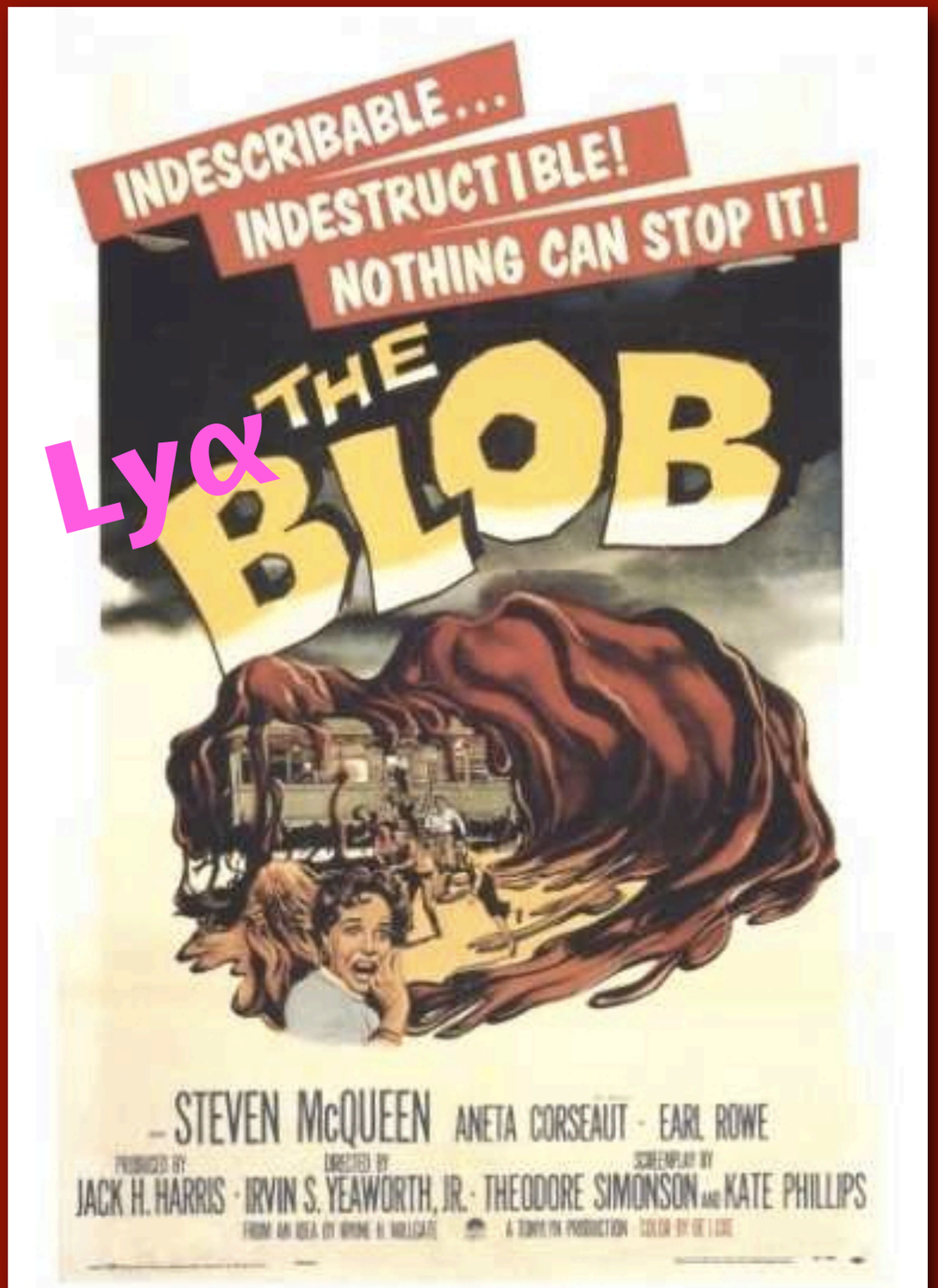
Attack of the Lyman-α Blobs

A. Zabludoff (Arizona), Y. Yang (KASI), E.-C. Kim (SNU),
C. You (Arizona), Z. Cai (UCSC)





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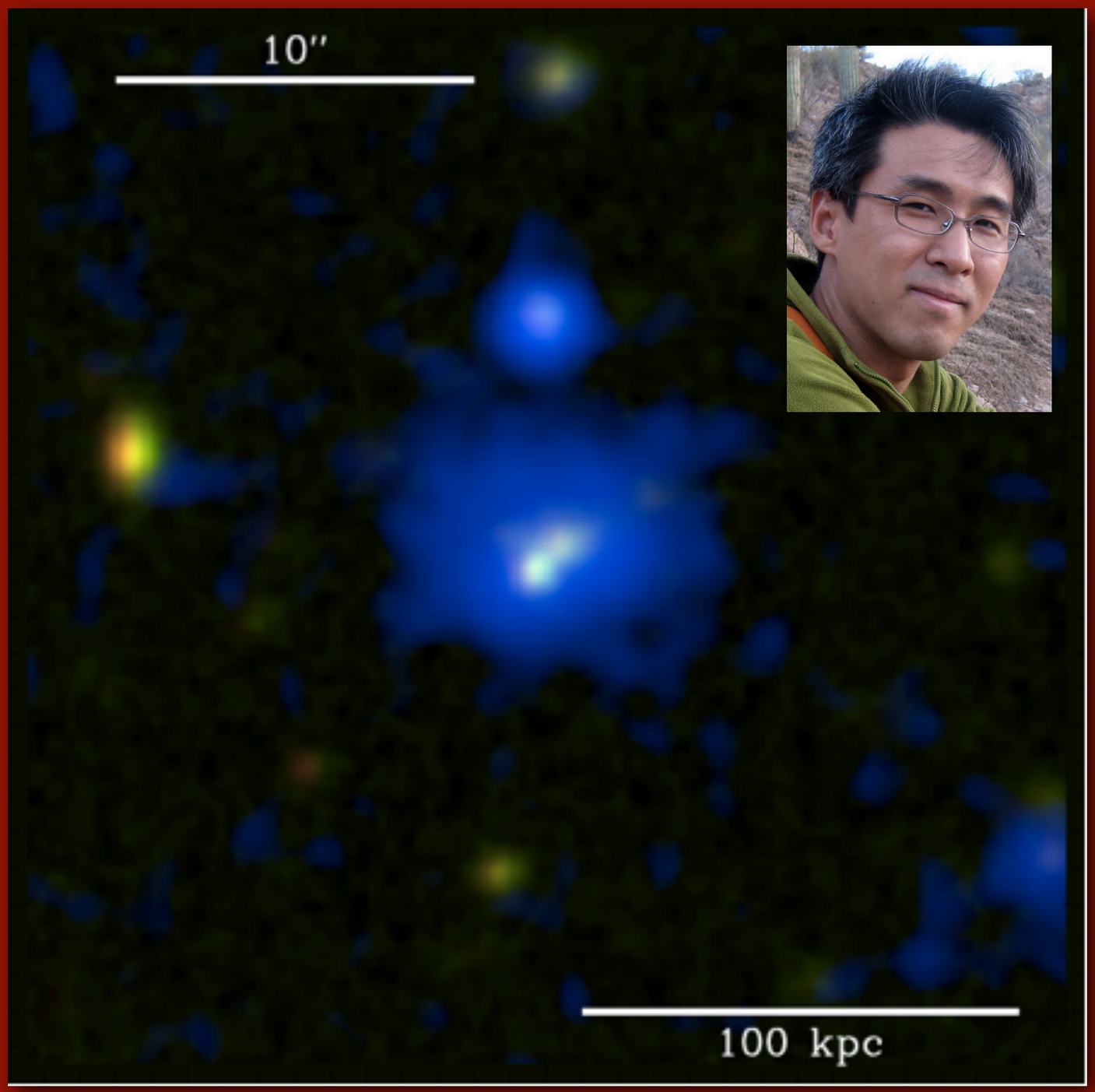
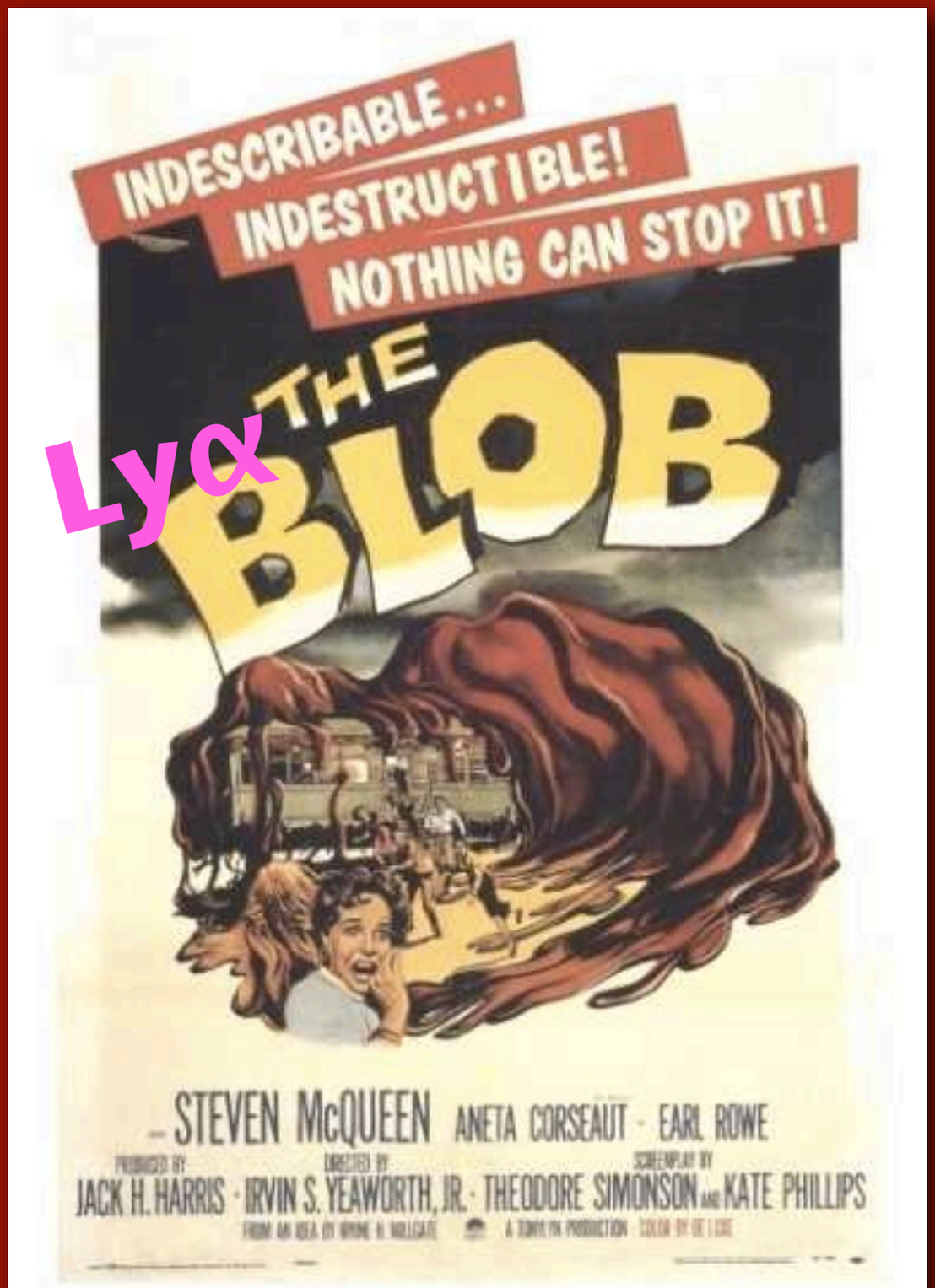
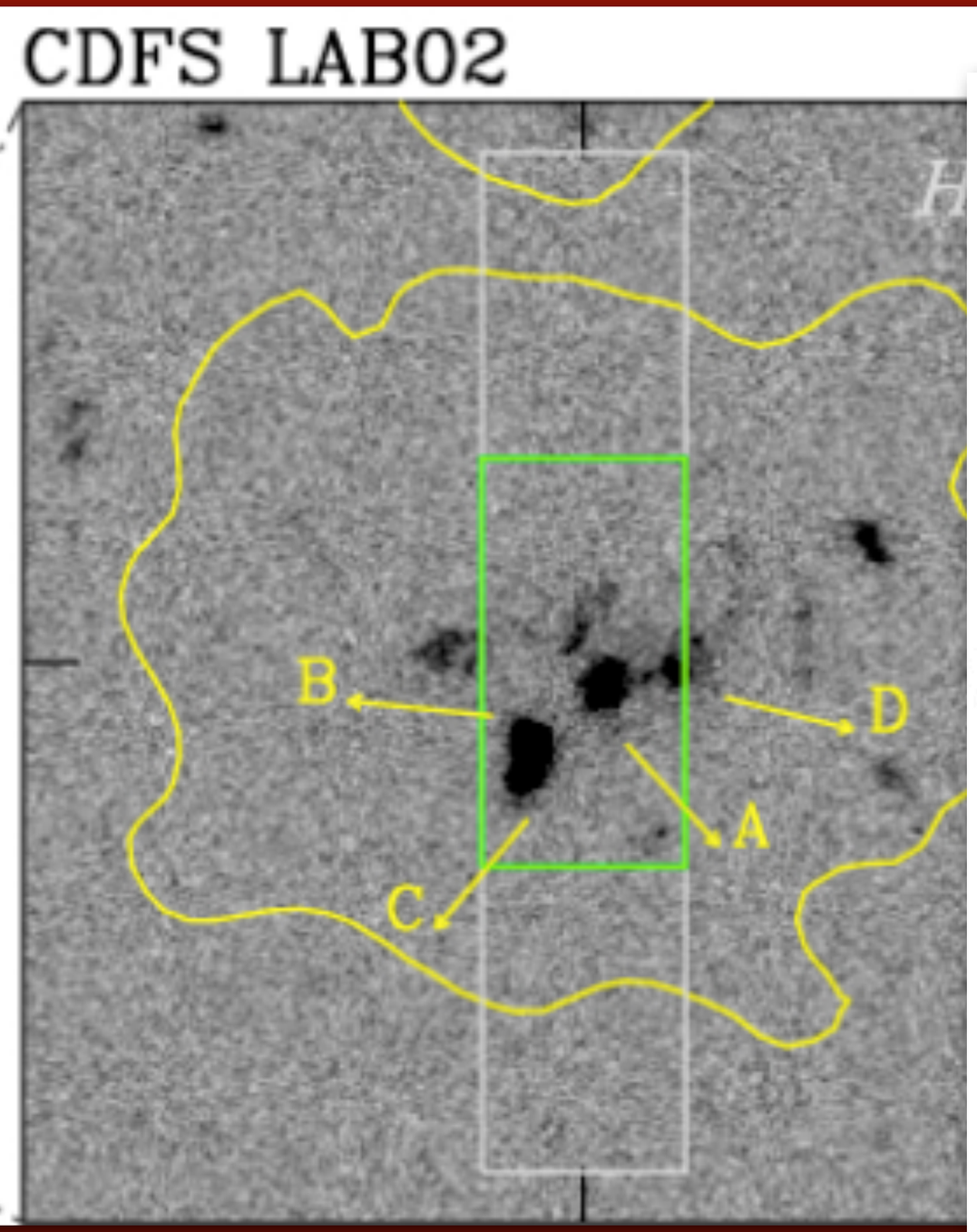
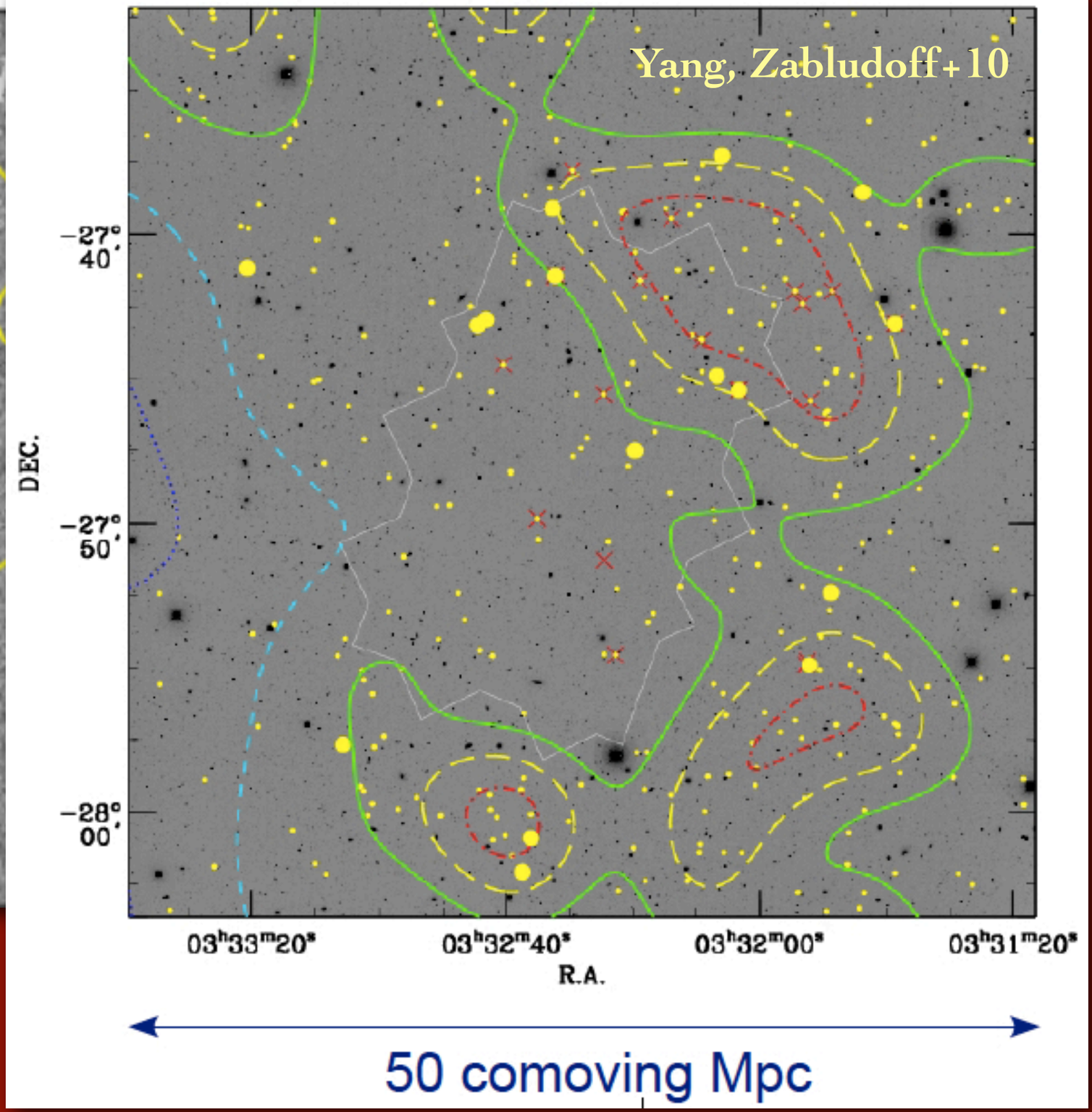




What Are They?





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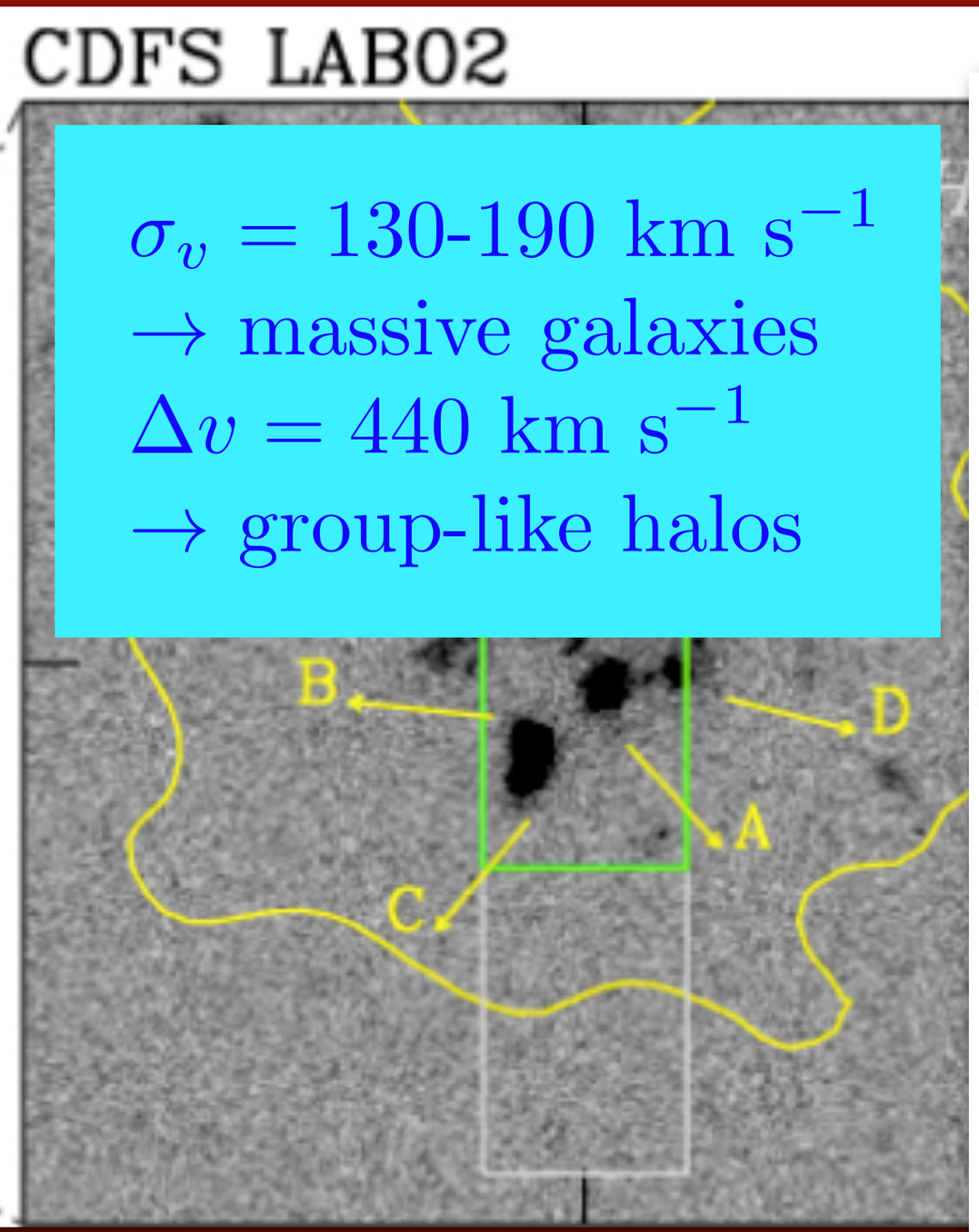
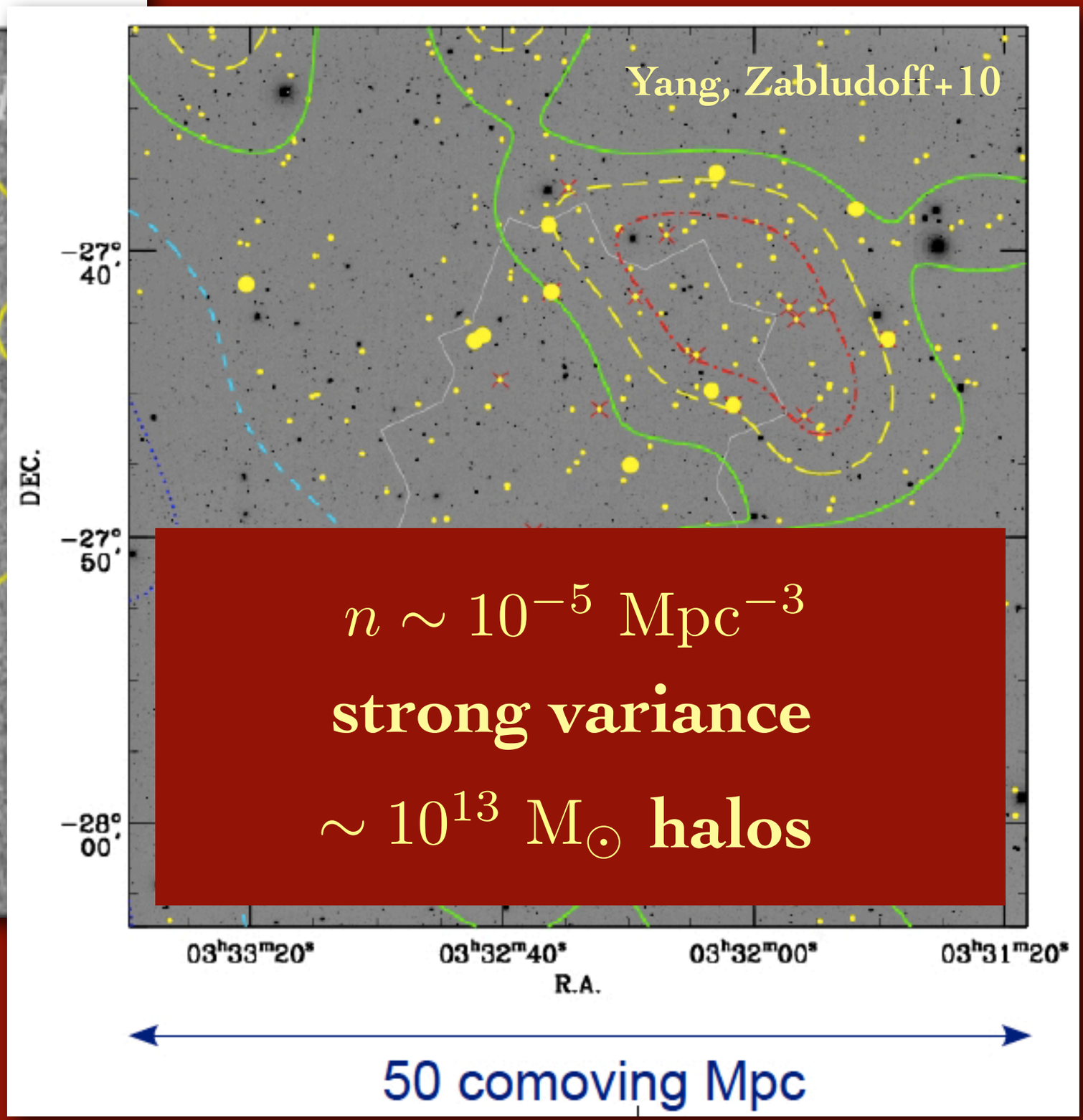
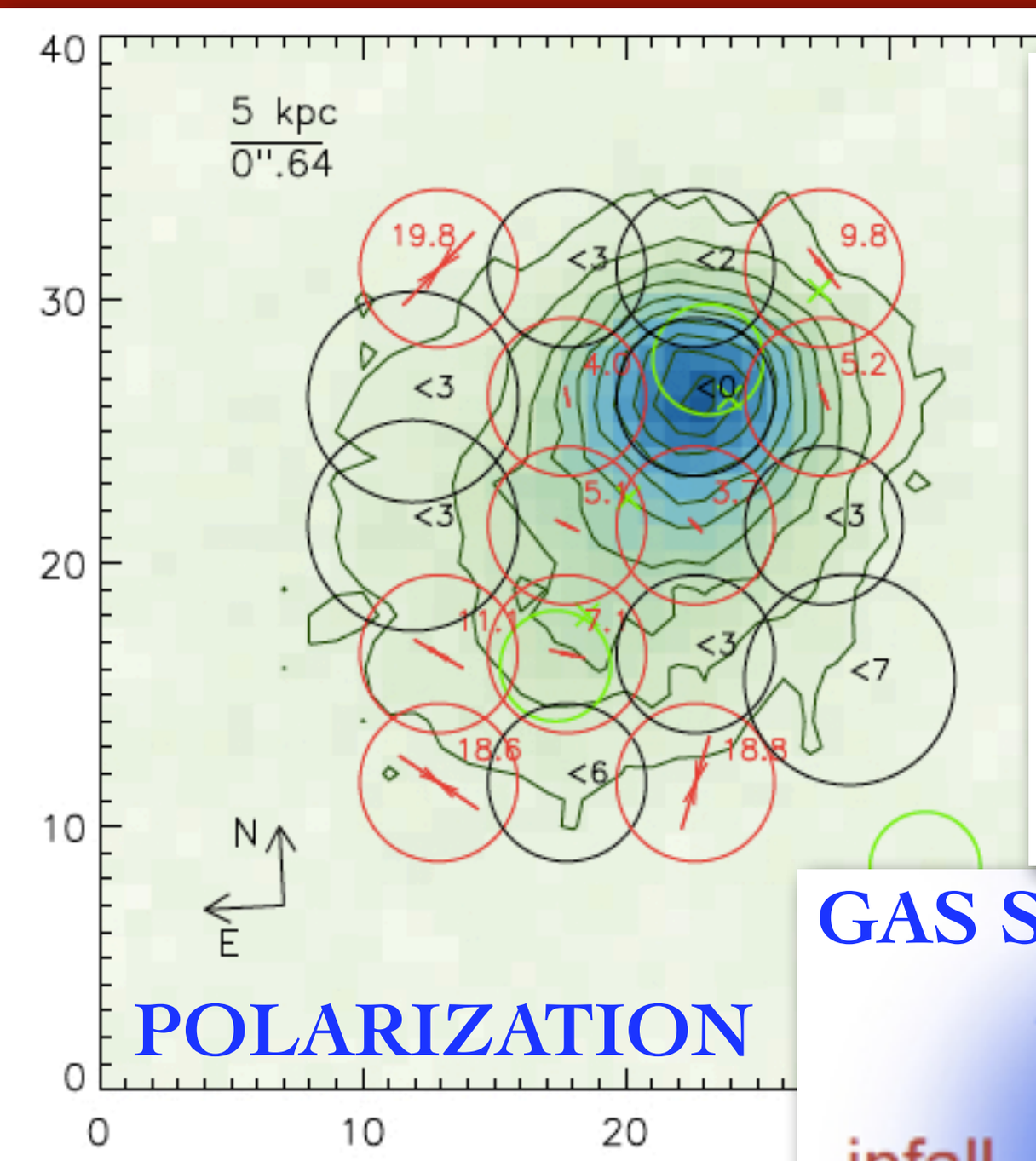


$\sigma_v = 130\text{-}190$ km s^{-1}
$\rightarrow$ massive galaxies
$\Delta v = 440$ km s^{-1}
$\rightarrow$ group-like halos

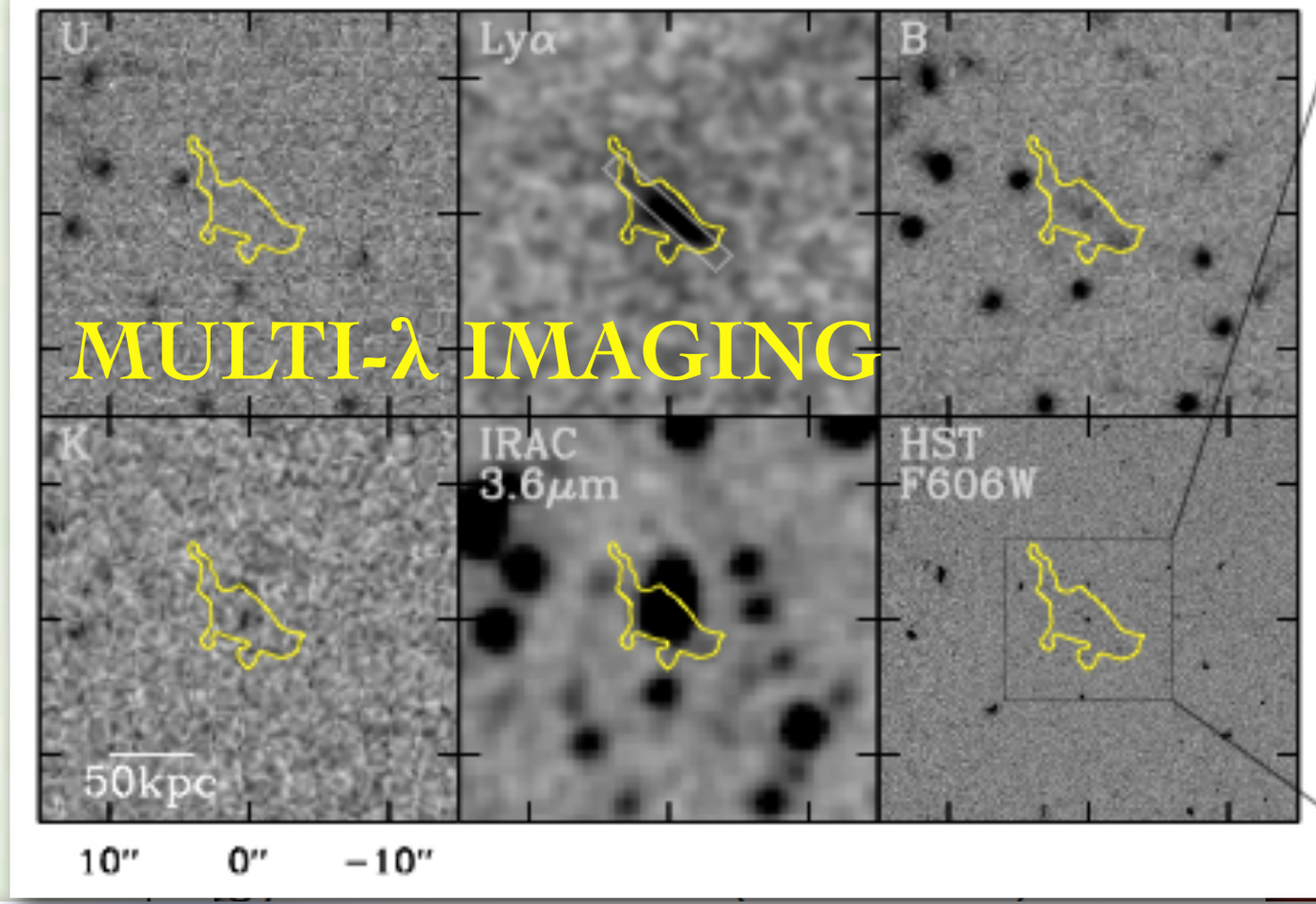


$n \sim 10^{-5}$ Mpc^{-3}
strong variance
$\sim 10^{13}$ M$_\odot$ **halos**

What Powers Them?

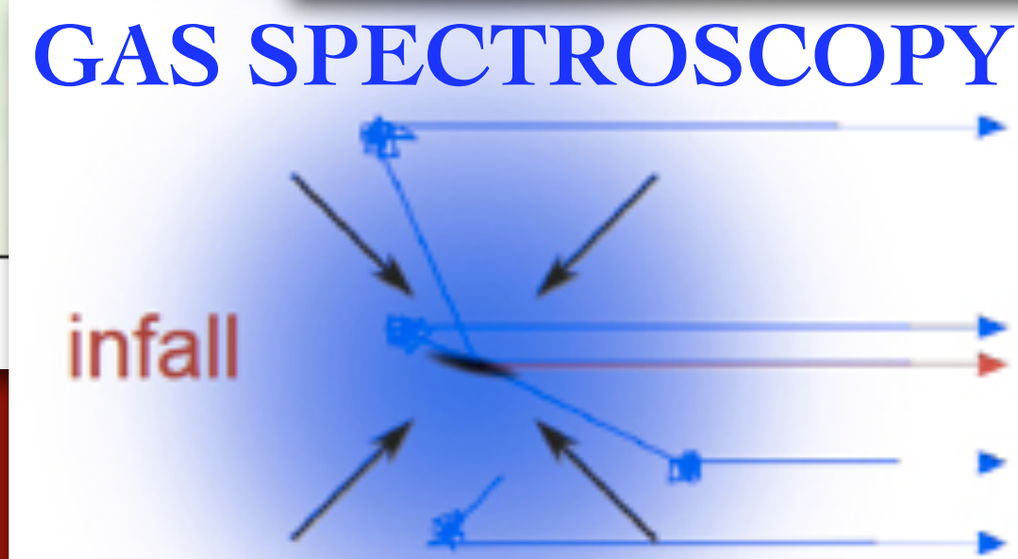


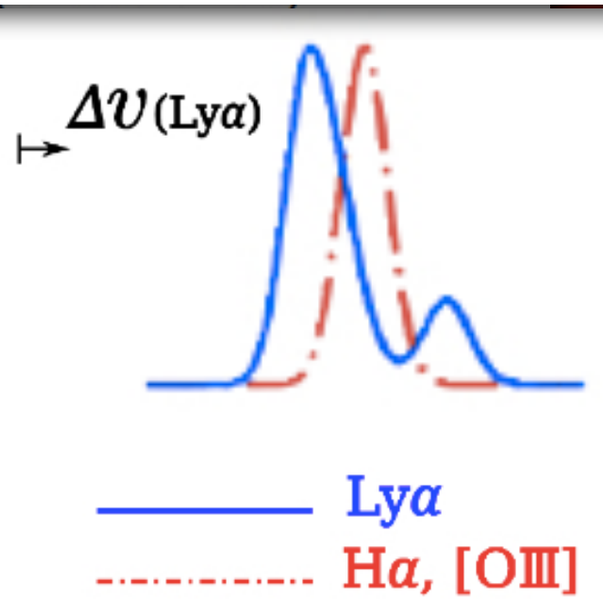
POLARIZATION



MULTI-λ IMAGING

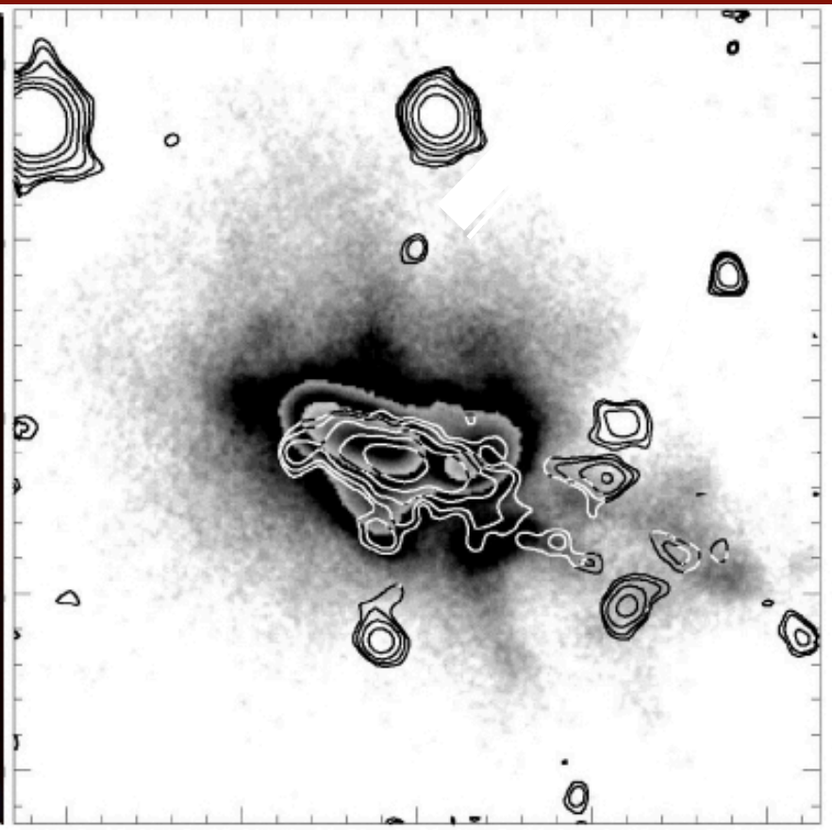
GAS SPECTROSCOPY



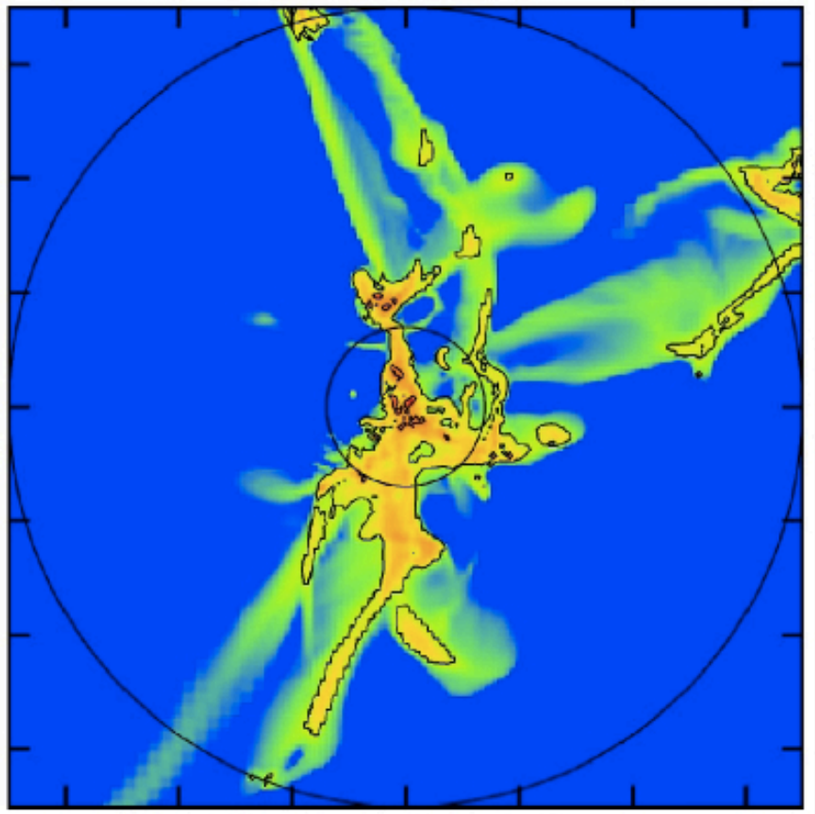


What Powers Them?

Superwind
Galactic wind in M82

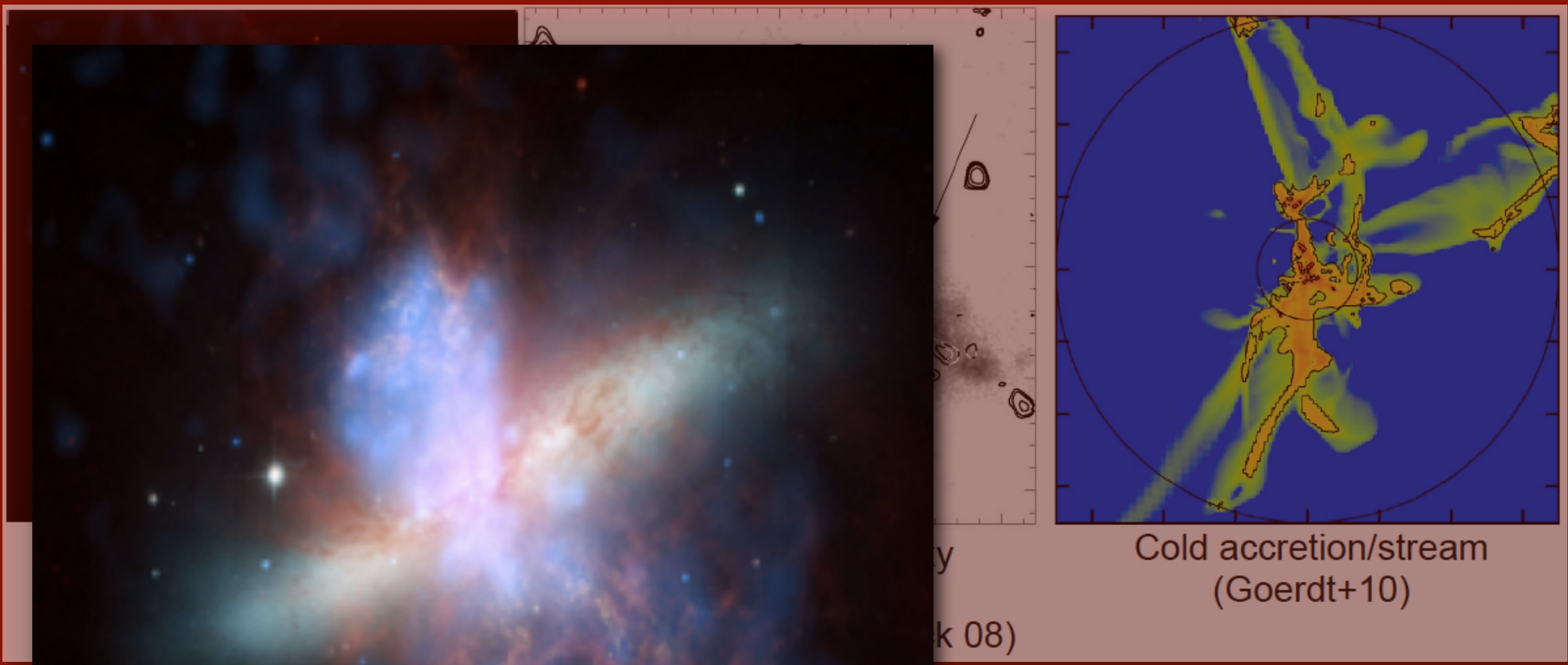


High-z radio galaxy
(Reuland+03)
(e.g Miley & De Breuck 08)



Cold accretion/stream
(Goerdt+10)

What Powers Them?

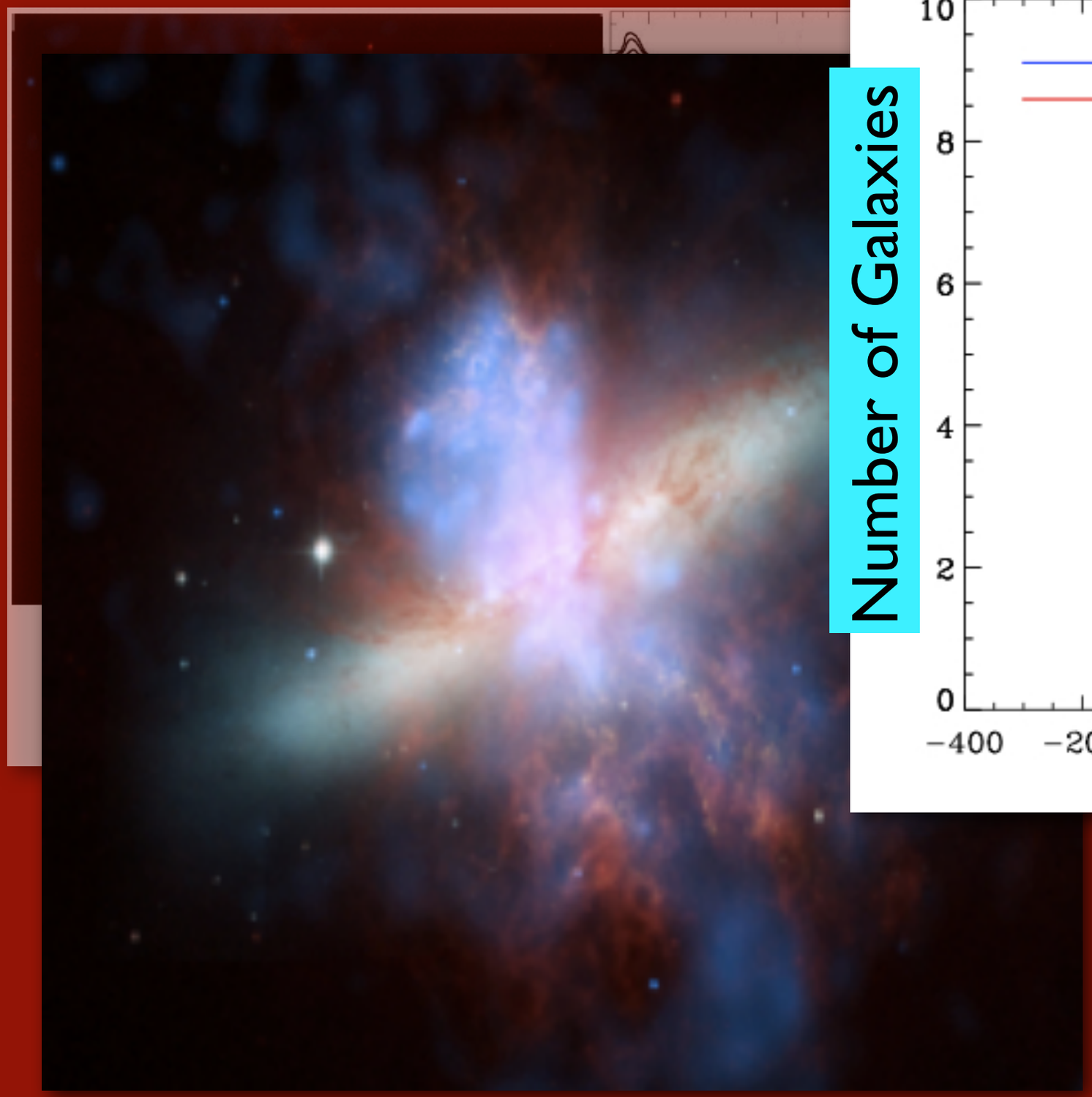


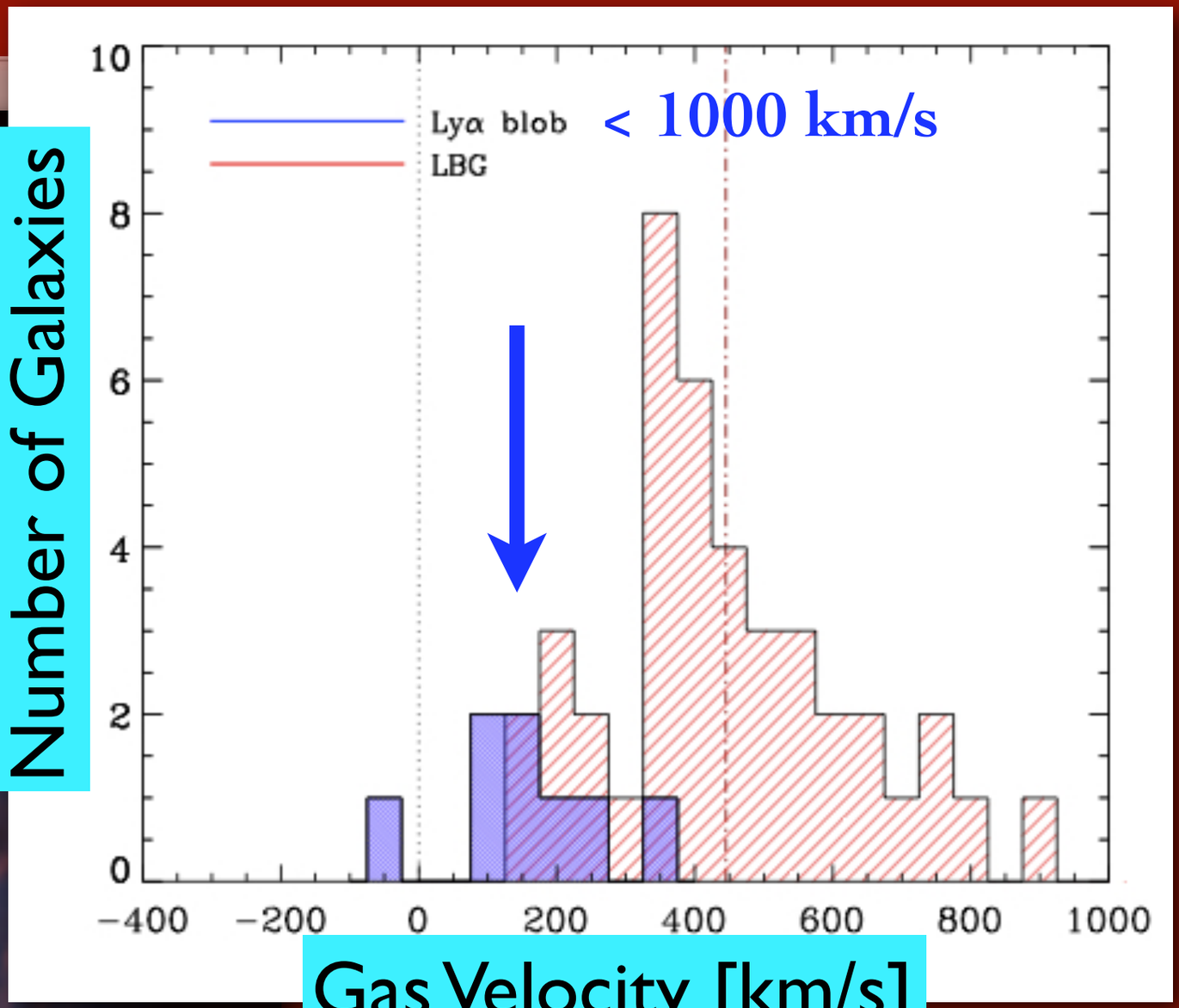
Cold accretion/stream
(Goerdt+10)

k 08)

What Powers Them?

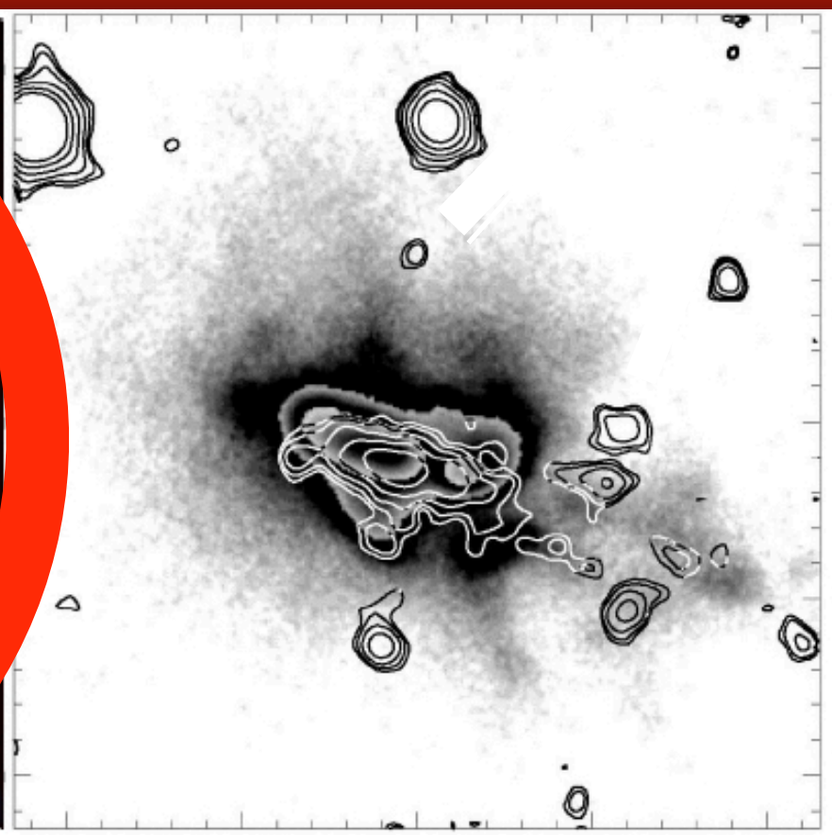
Yang, Zabludoff+14



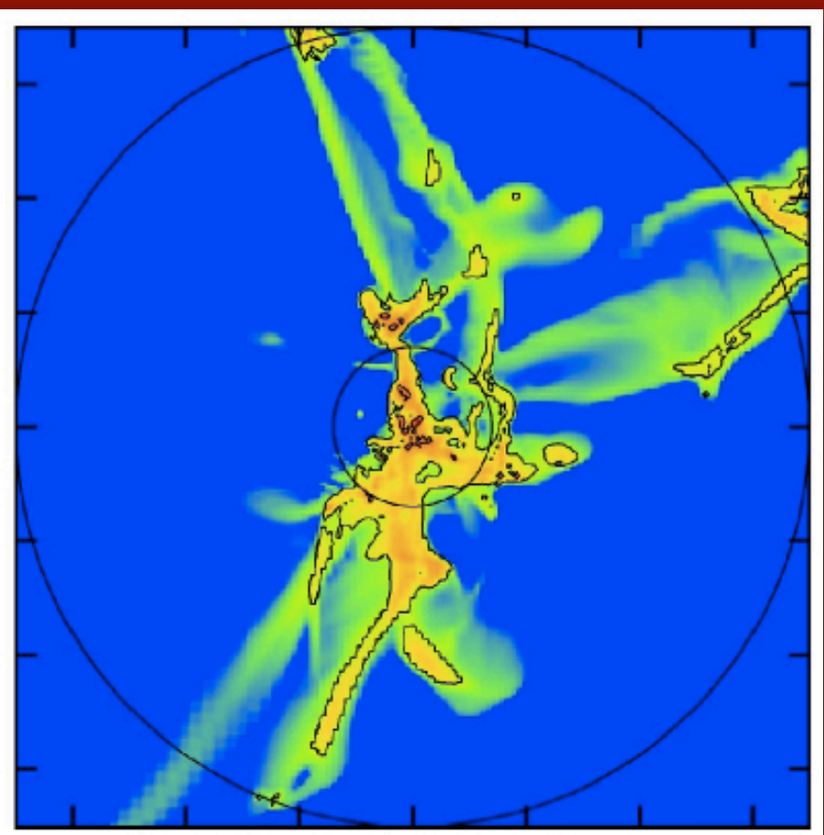


What Powers Them?

Galactic wind in M82



High-z radio galaxy
(Reuland+03)
(e.g Miley & De Breuck 08)

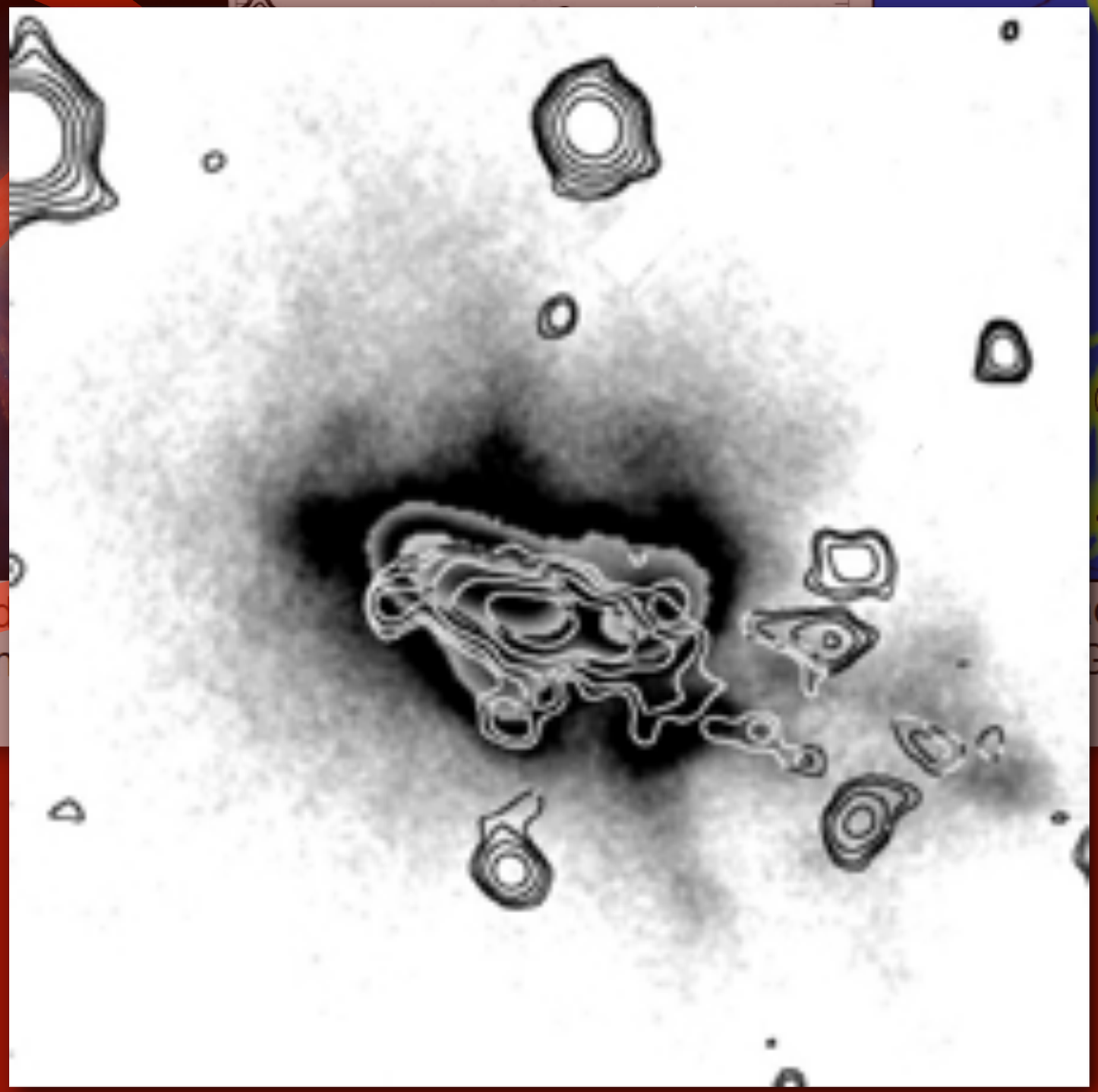


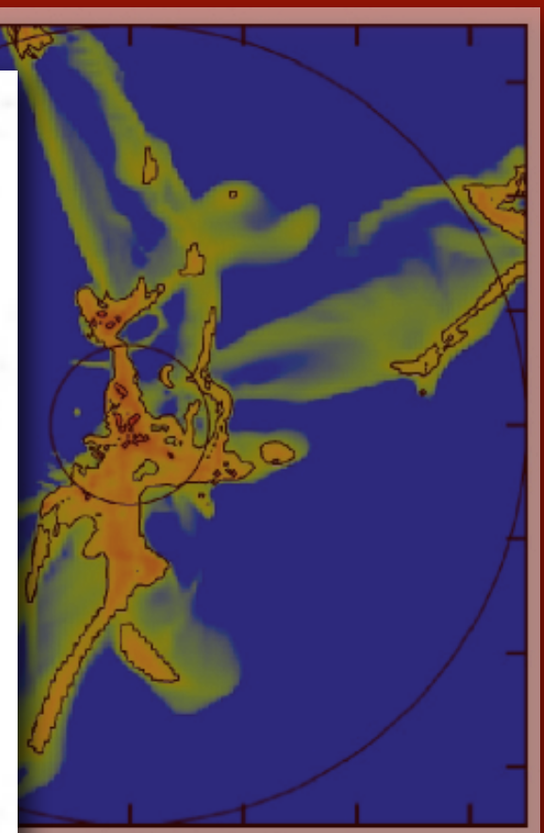
Cold accretion/stream
(Goerdt+10)

- not superwinds

What Powers Them?

Superwind
Galactic wind in





ccretion/stream
Goerdt+10)

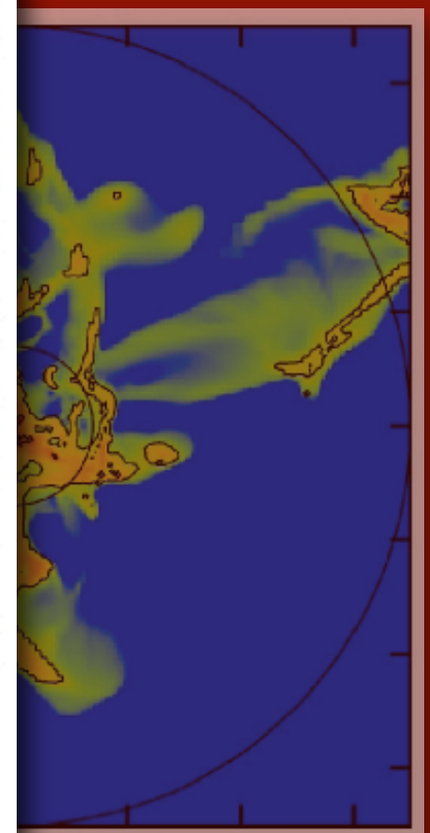
What Powers Them?

Super
Galactic wi

photo-ionization
by stars & AGN
(H II region in M33)

or

resonant scattering
(scattering by dust
in Egg Nebula)



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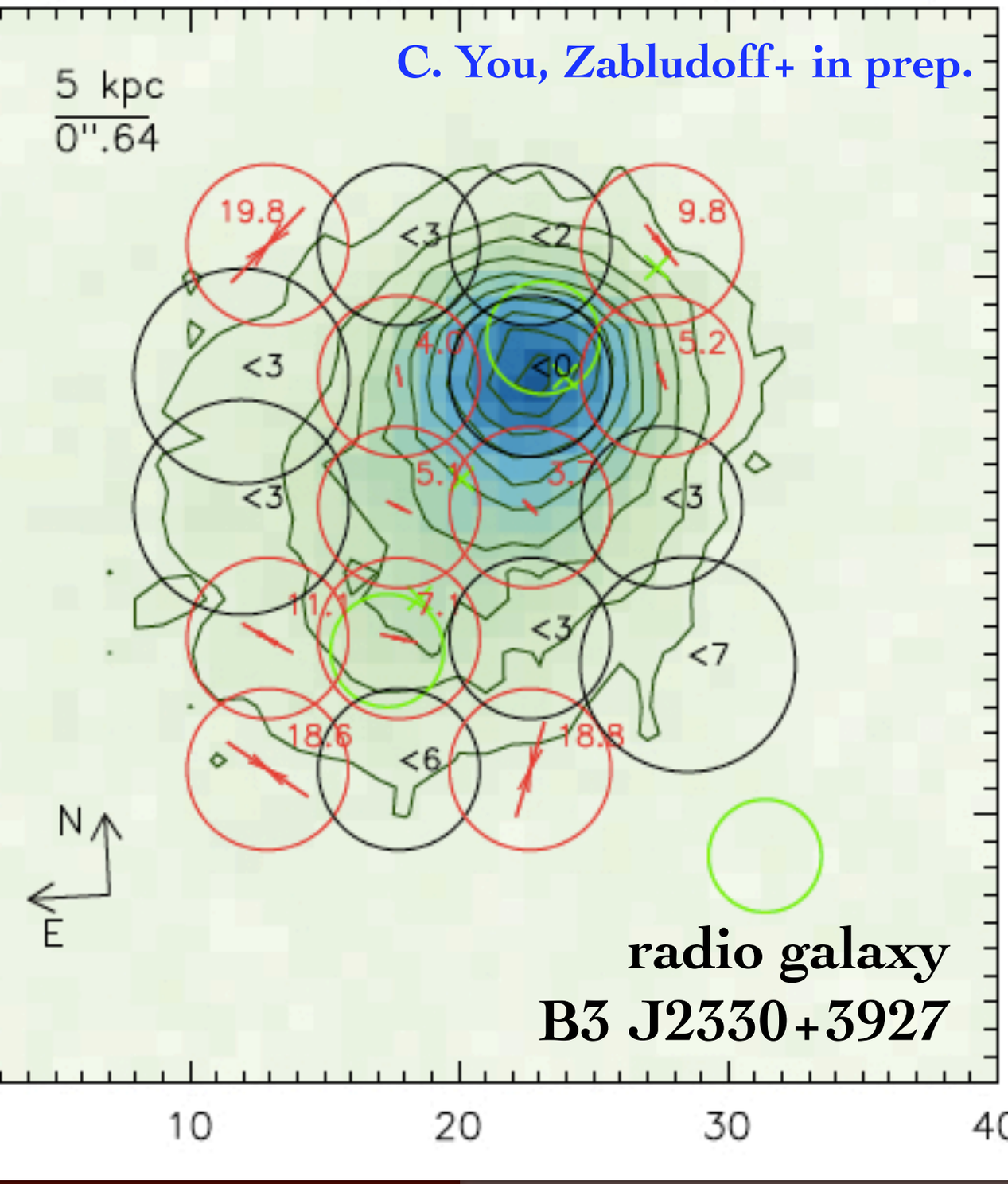
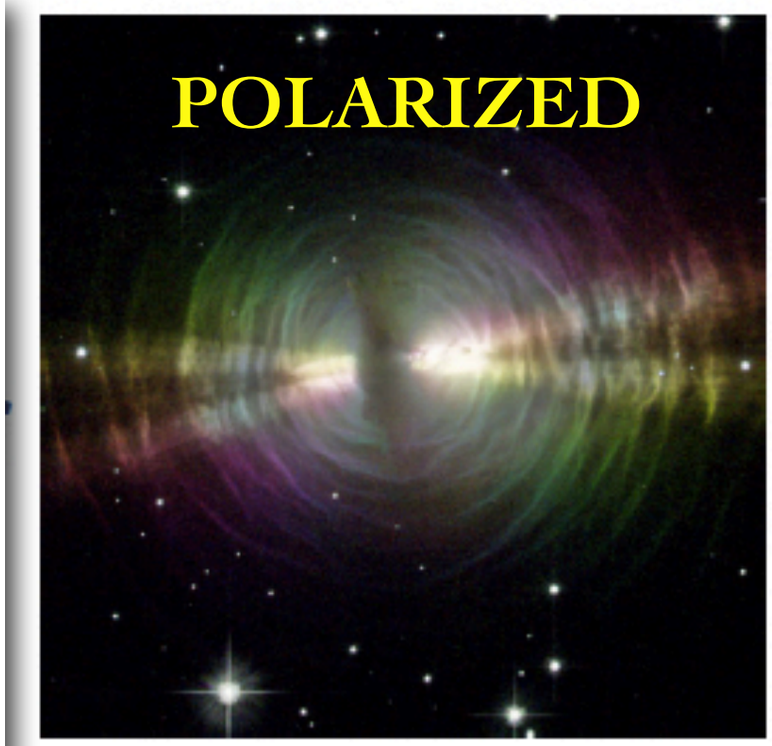
dt+10)

(e.g Miley & De Breuck 08)

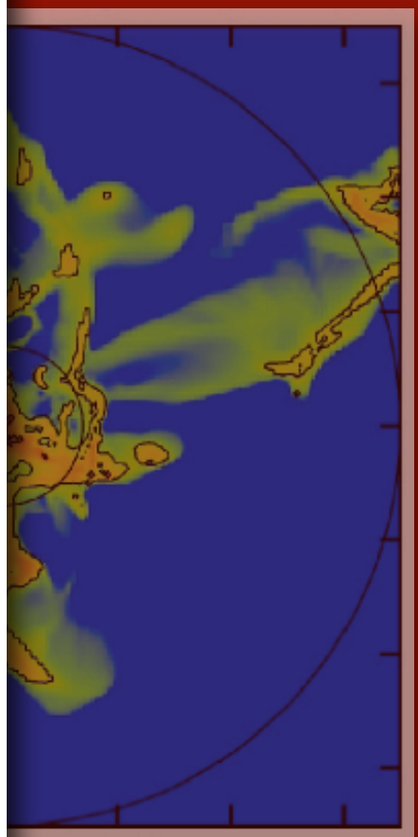
What Powers Them?



radio galaxy
B3 J2330+3927



resonant scattering
(scattering by dust
in Egg Nebula)



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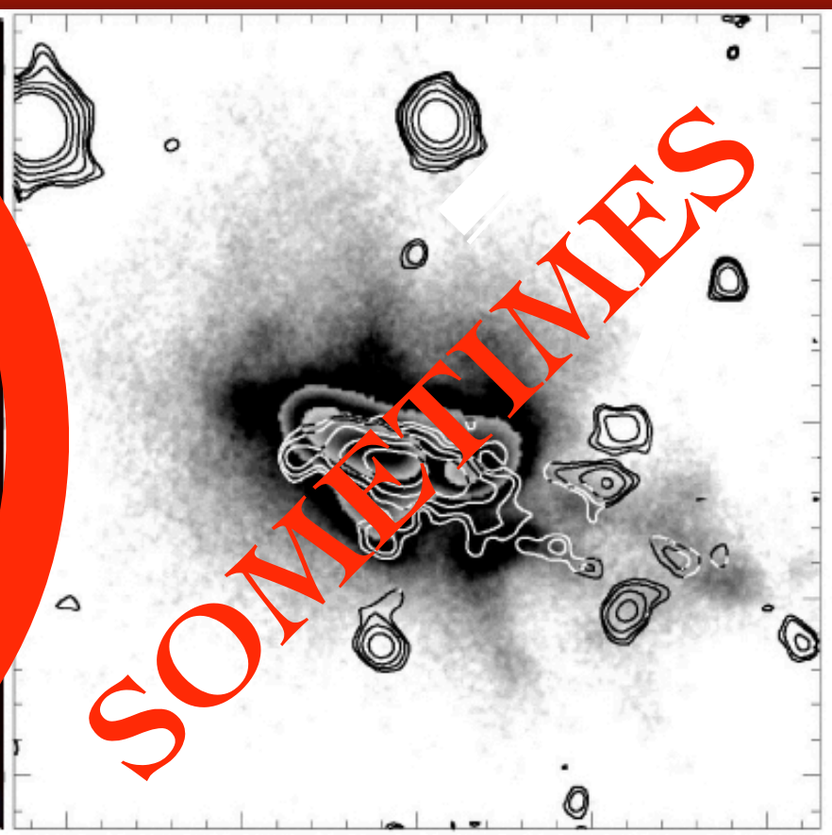
dt+10)

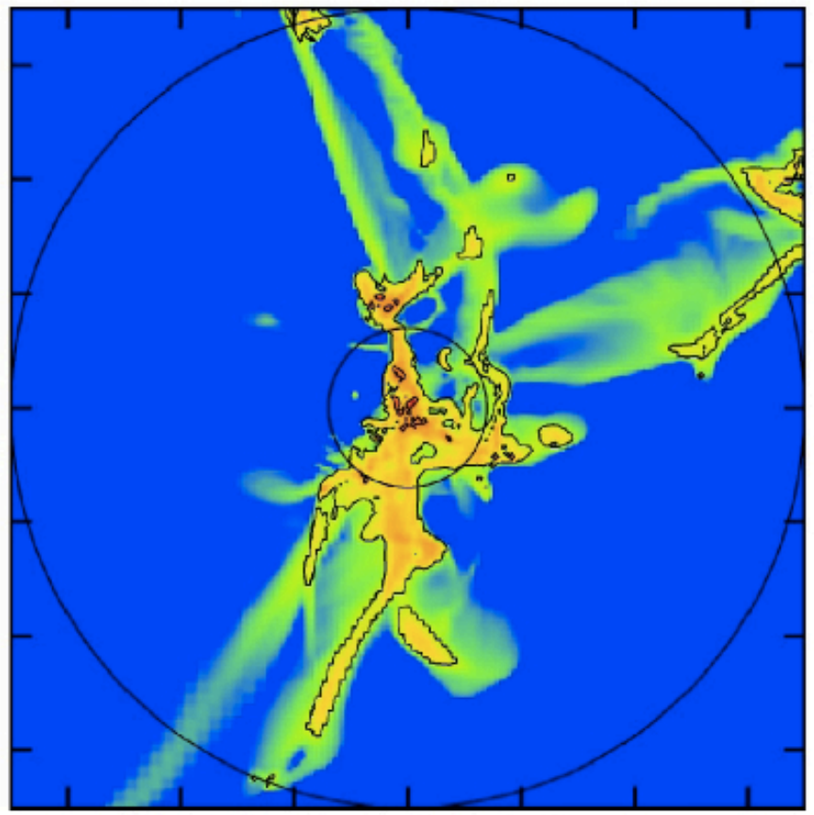
e Breuck 08)

What Powers Them?

Galactic wind in M82



High-z radio galaxy
(Reuland+03)
(e.g Miley & De Breuck 08)



Cold accretion/stream
(Goerdt+10)

- not superwinds
- some resonant scattering from central source

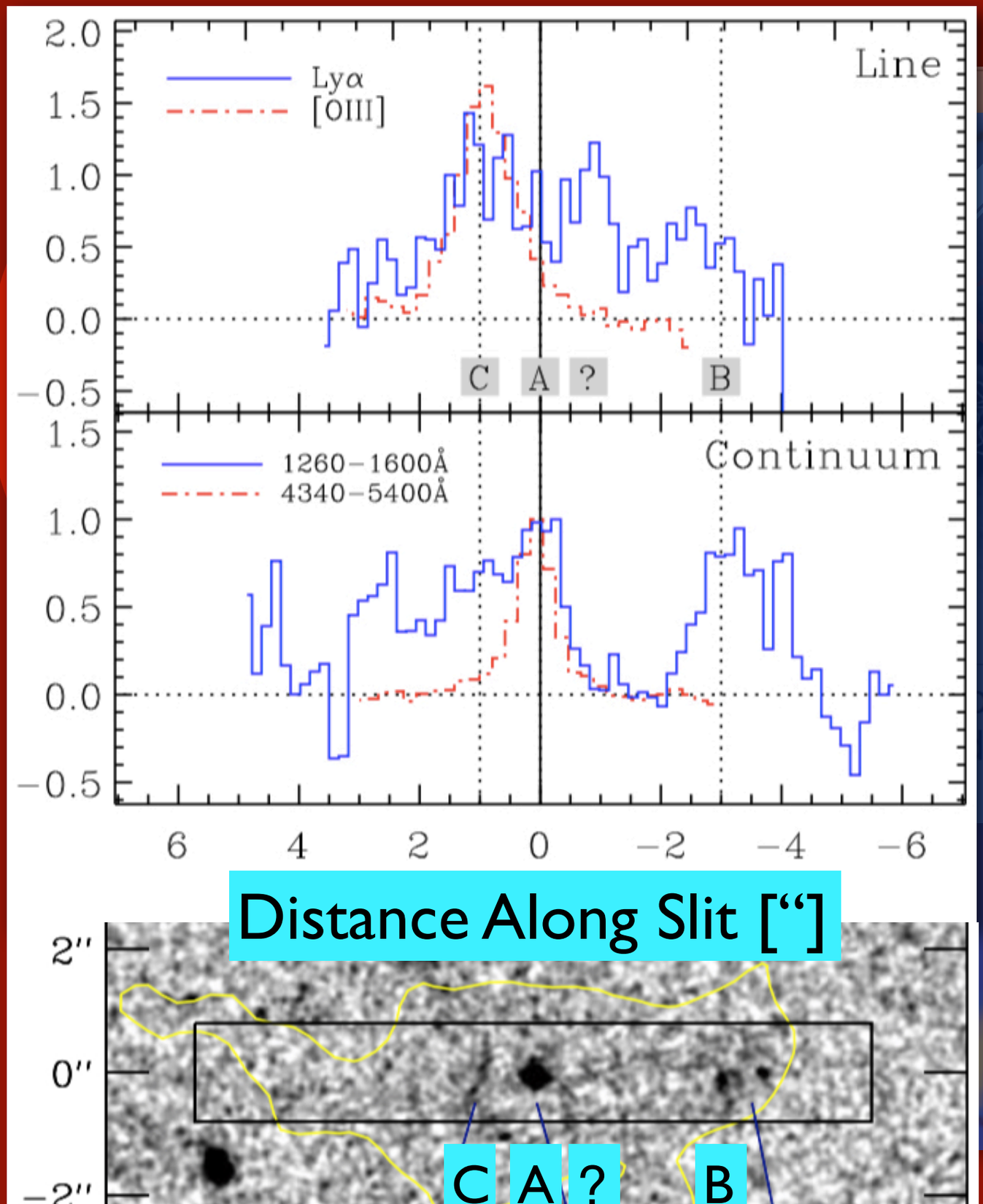
What Powers Them?

Superwind

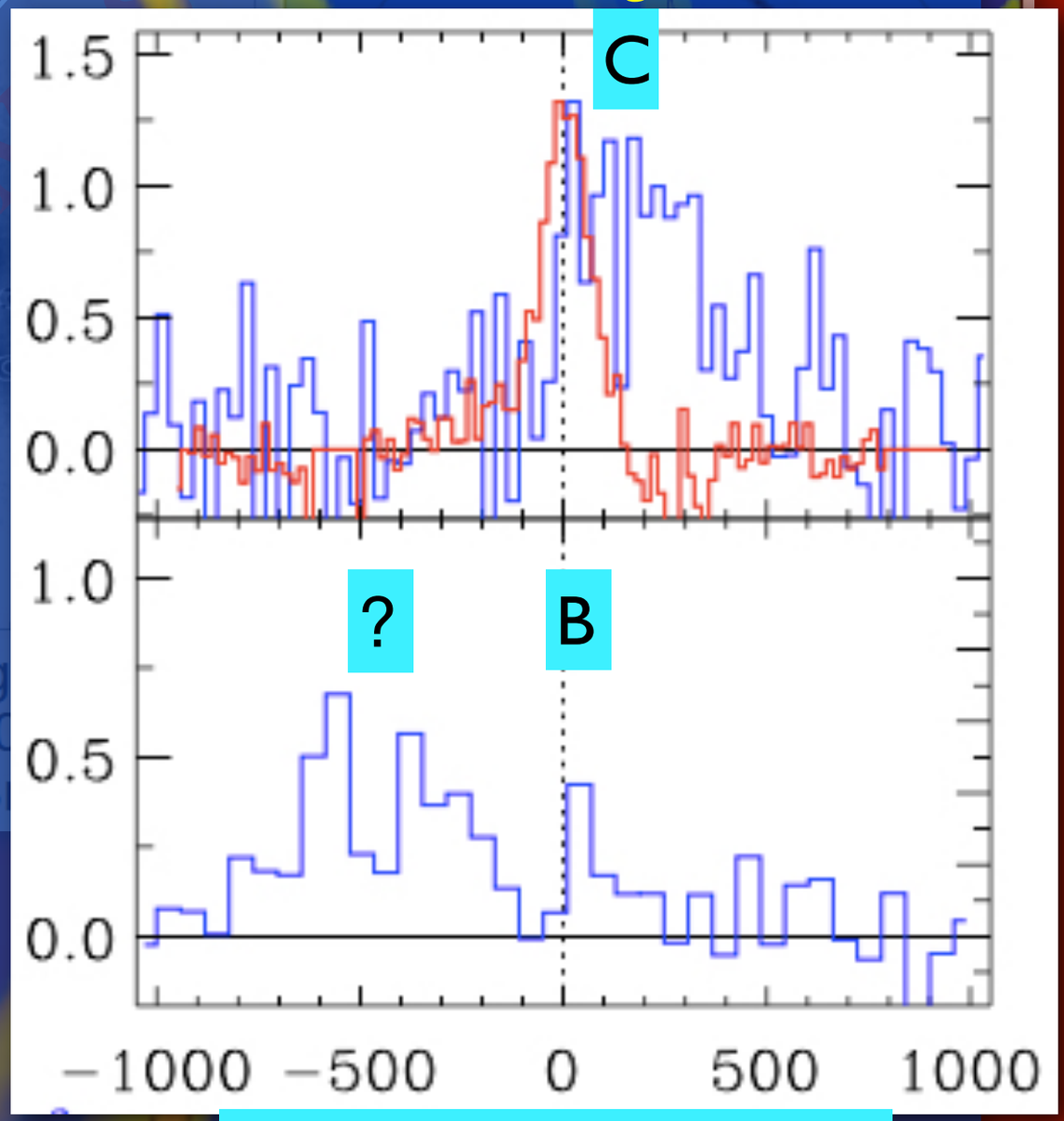
Galactic wind in M82

(e.g

What Powers Them?

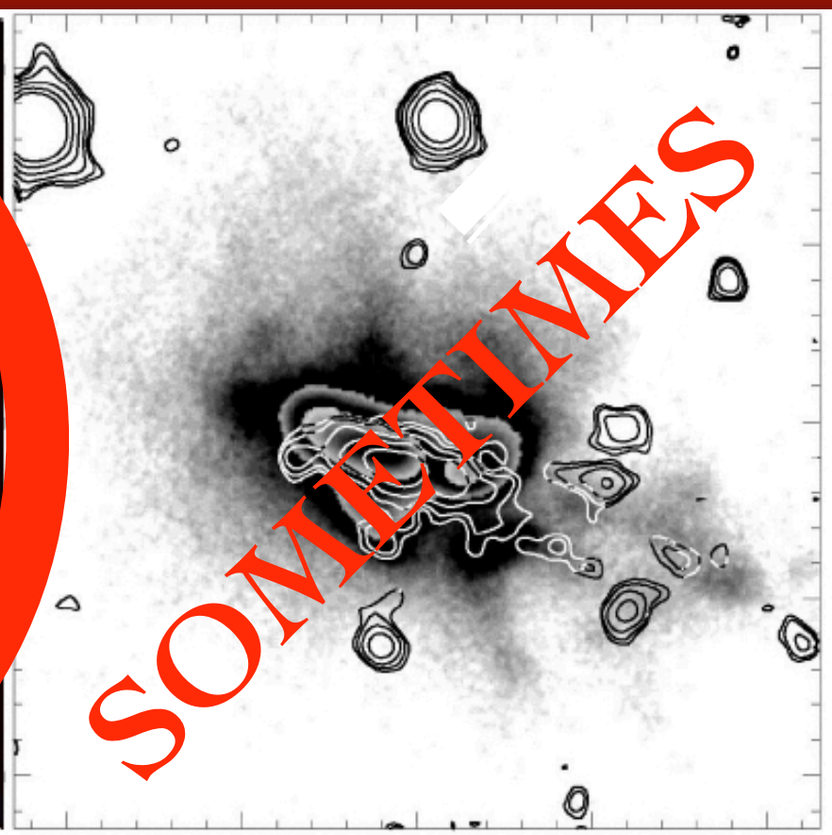


Yang, Zabludoff+14



What Powers Them?

Galactic wind in M82



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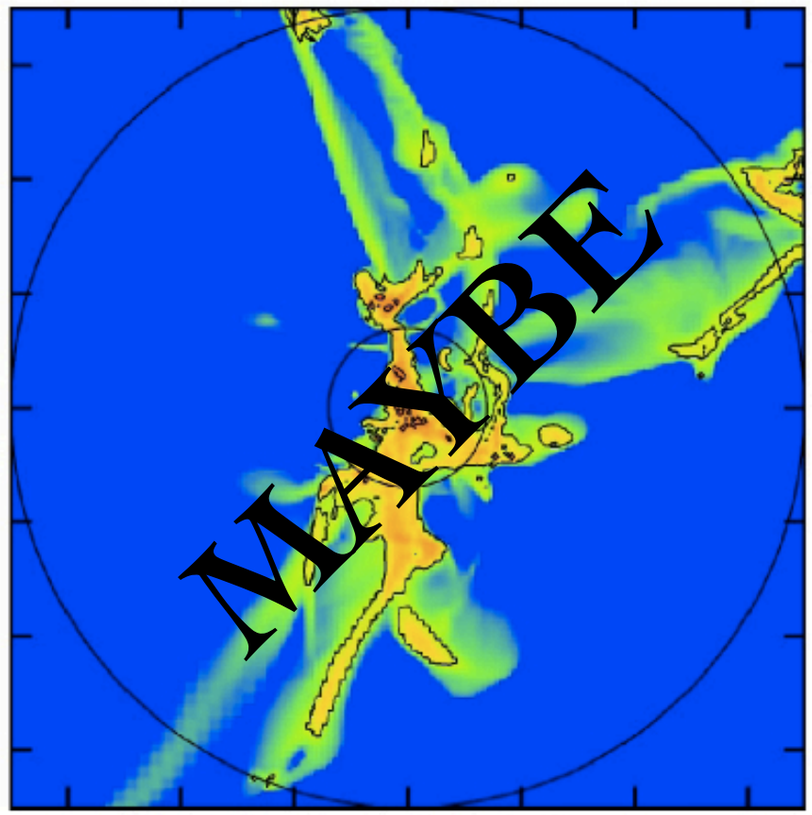
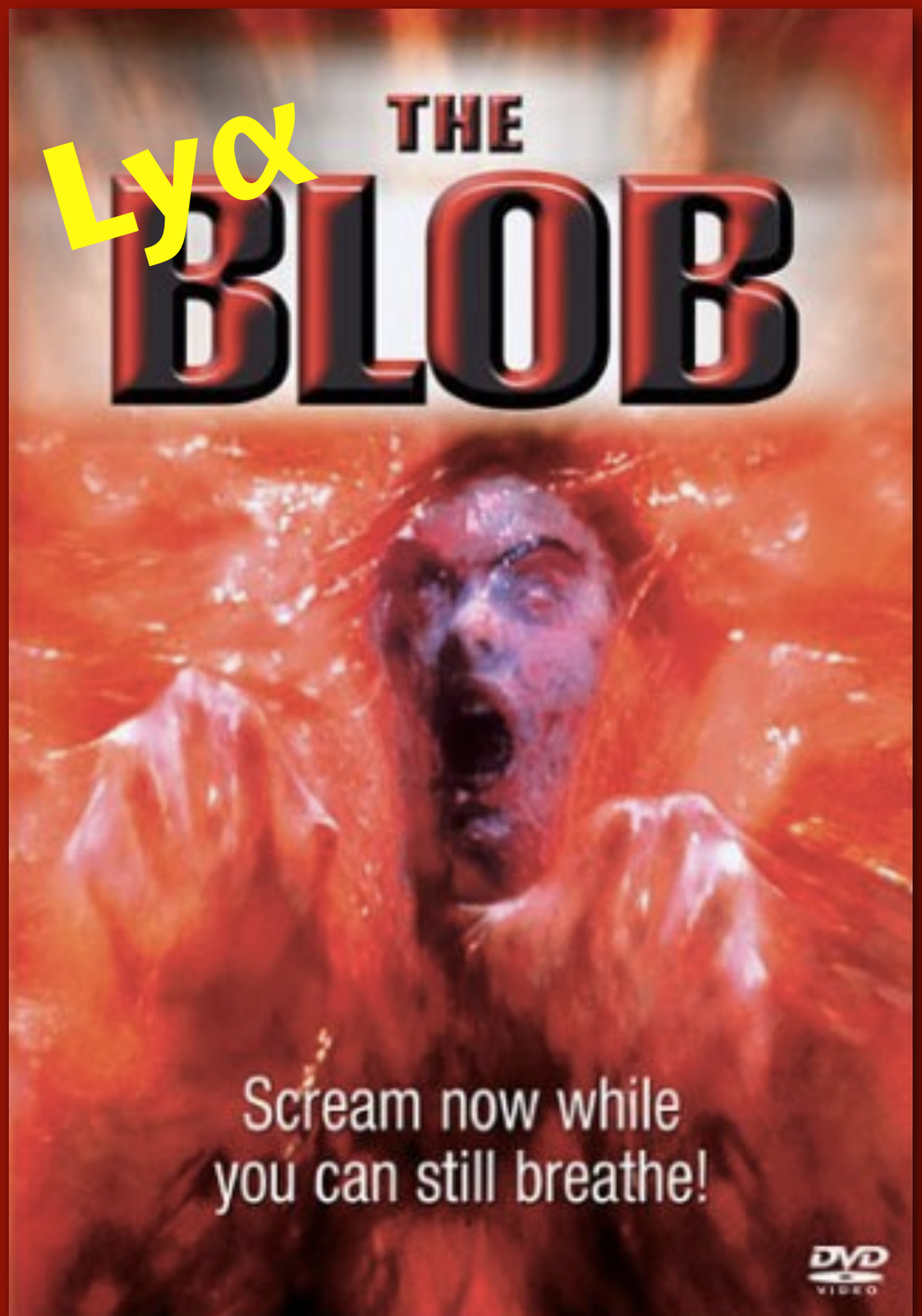


Cold accretion/stream
(Goerdt+10)

- not superwinds
- some resonant scattering from central source
- evidence for infall?

Conclusions: Don't Fear the Blobs



- proto-cluster identification
- structure evolution tracers

  intracluster medium
  massive cluster galaxies
  oldest stellar populations
  black holes

- power source(s) narrowed

stay tuned...