

How common are dusty AGN?

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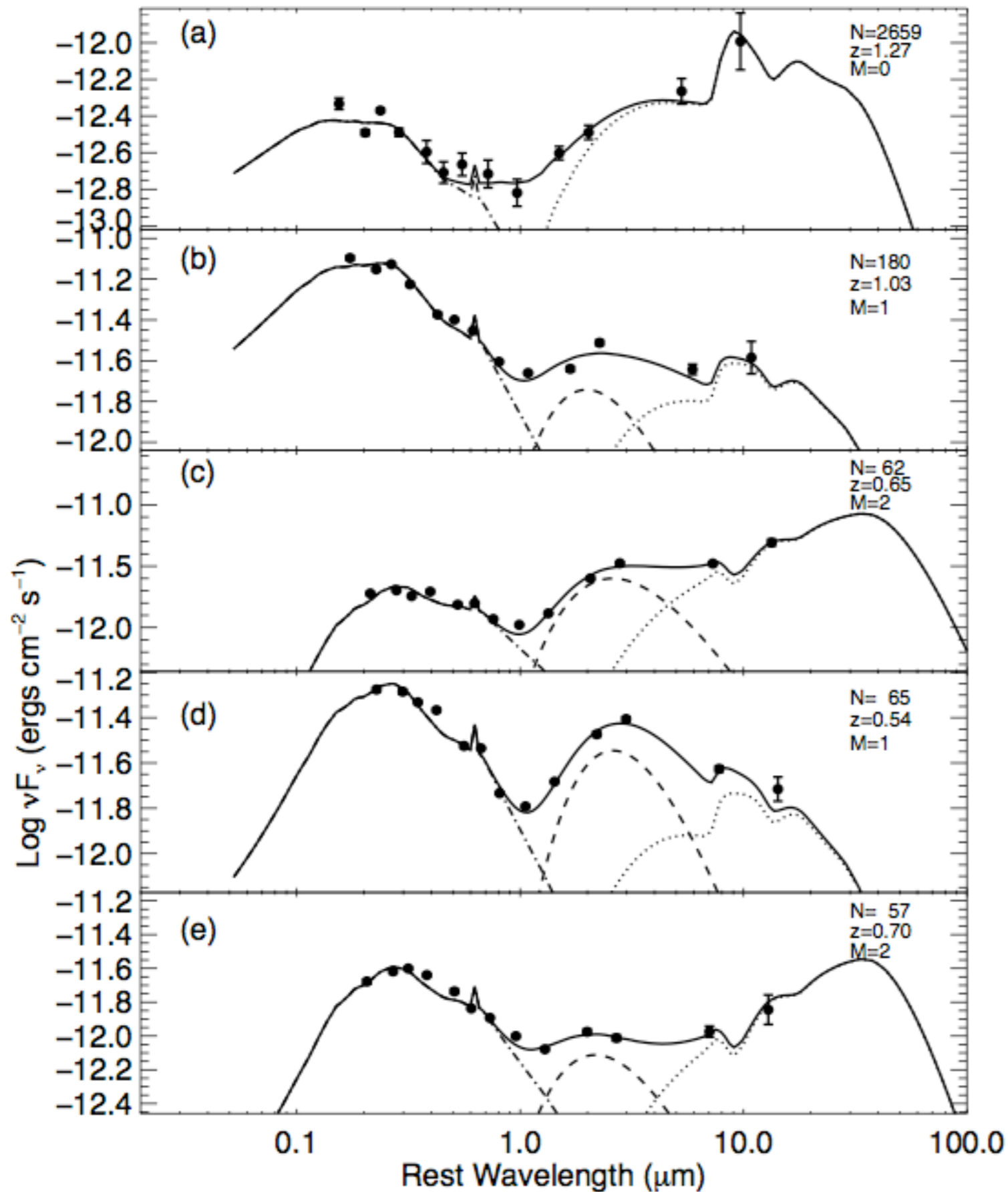
Answer: 100% of AGN are dusty

Roseboom et al 2013

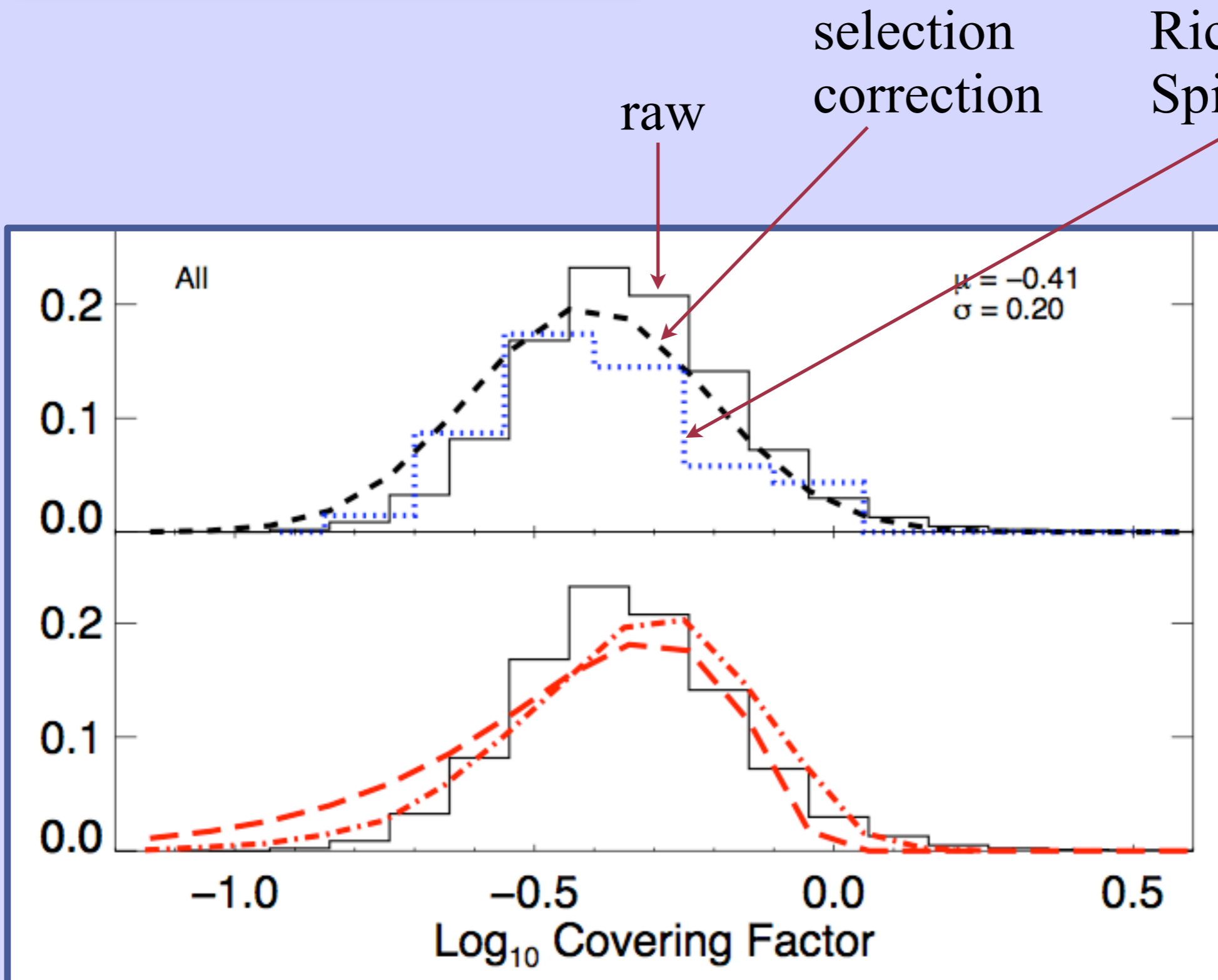
3831 WISE/UKIDSS/SDSS
quasars

turn these round and
you get Type 2s

note range of IR
shapes and strengths



P(C) results



selection
correction

Richards (2006)
Spitzer sample

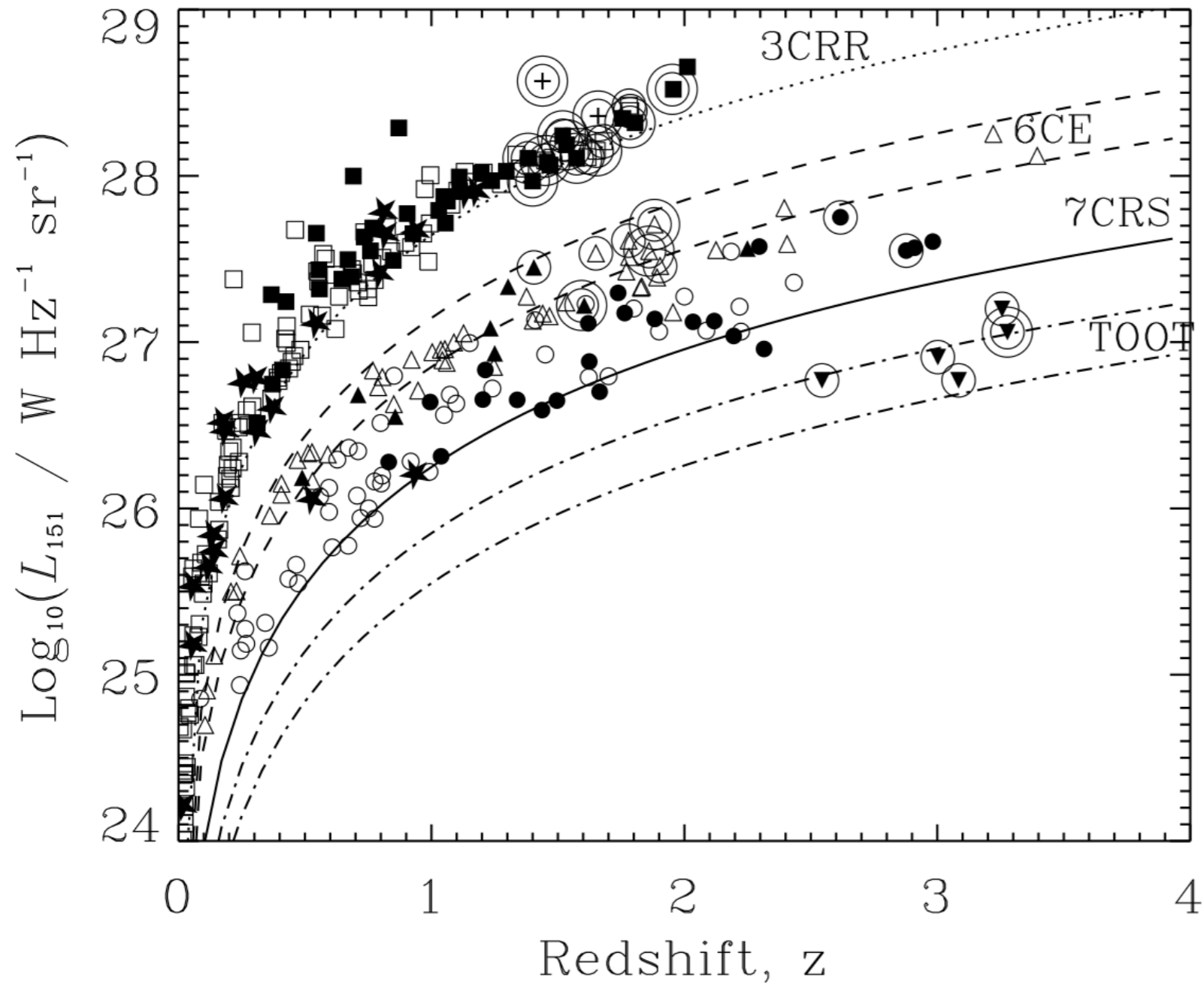
log Gaussian

$\mu(C_I) = 0.39$

1σ range :
factor 2.5

$\mu(C_{\text{all}}) = 0.64$

*same as local
fraction of S2*



Grimes et al 2005

Type 2 easy to see
in radio samples

if we can't see $z=2$ Type 2s
we aren't looking right

reliable samples give f_2 constant with L

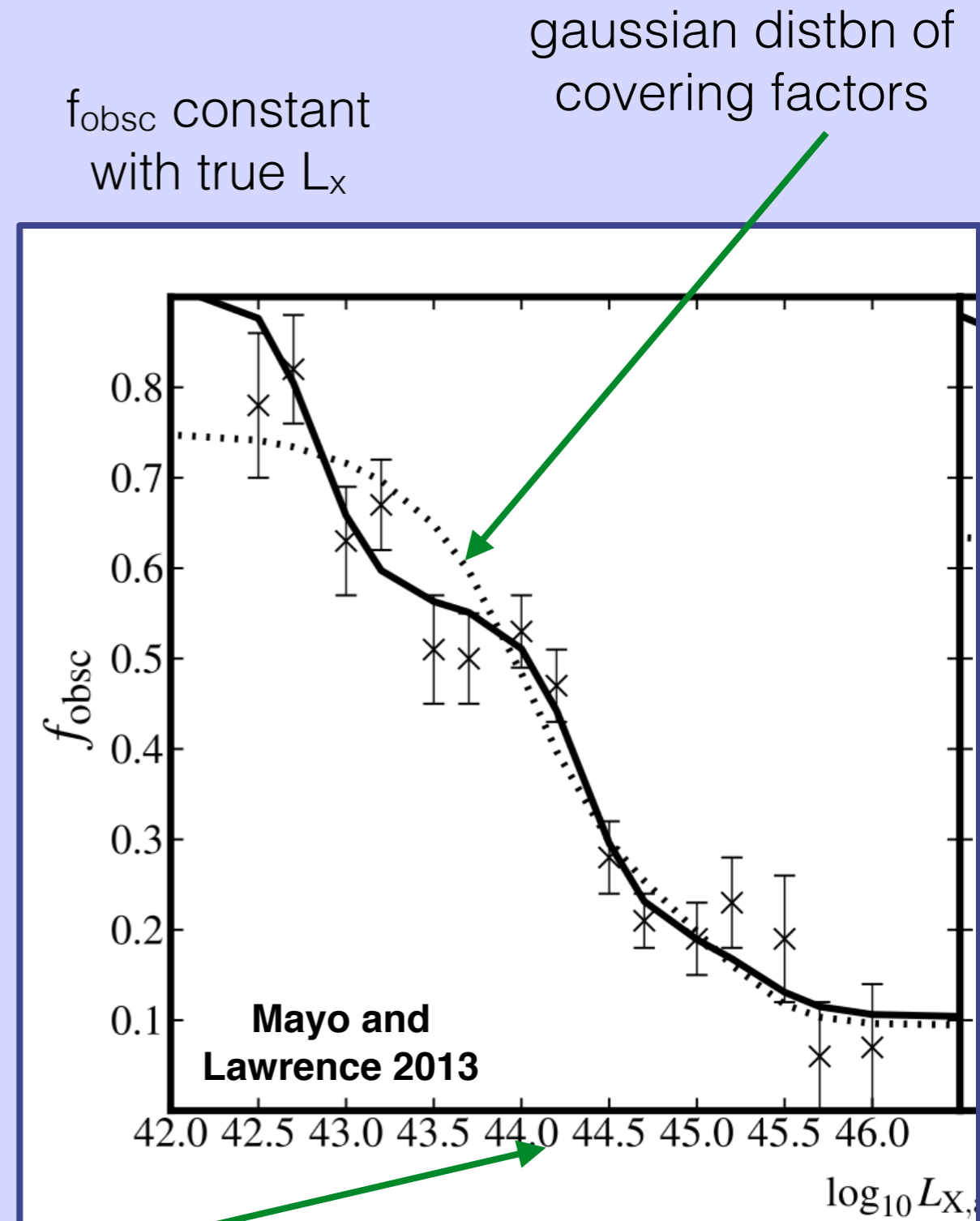
- volume limited
- complete flux limited
- low freq. radio

IR survey problems

- colour cuts
- incomplete spectra
- classification bias

X-ray survey problems

- partial covering $\Rightarrow L_x$ wrong
- incomplete spectra
- classification bias



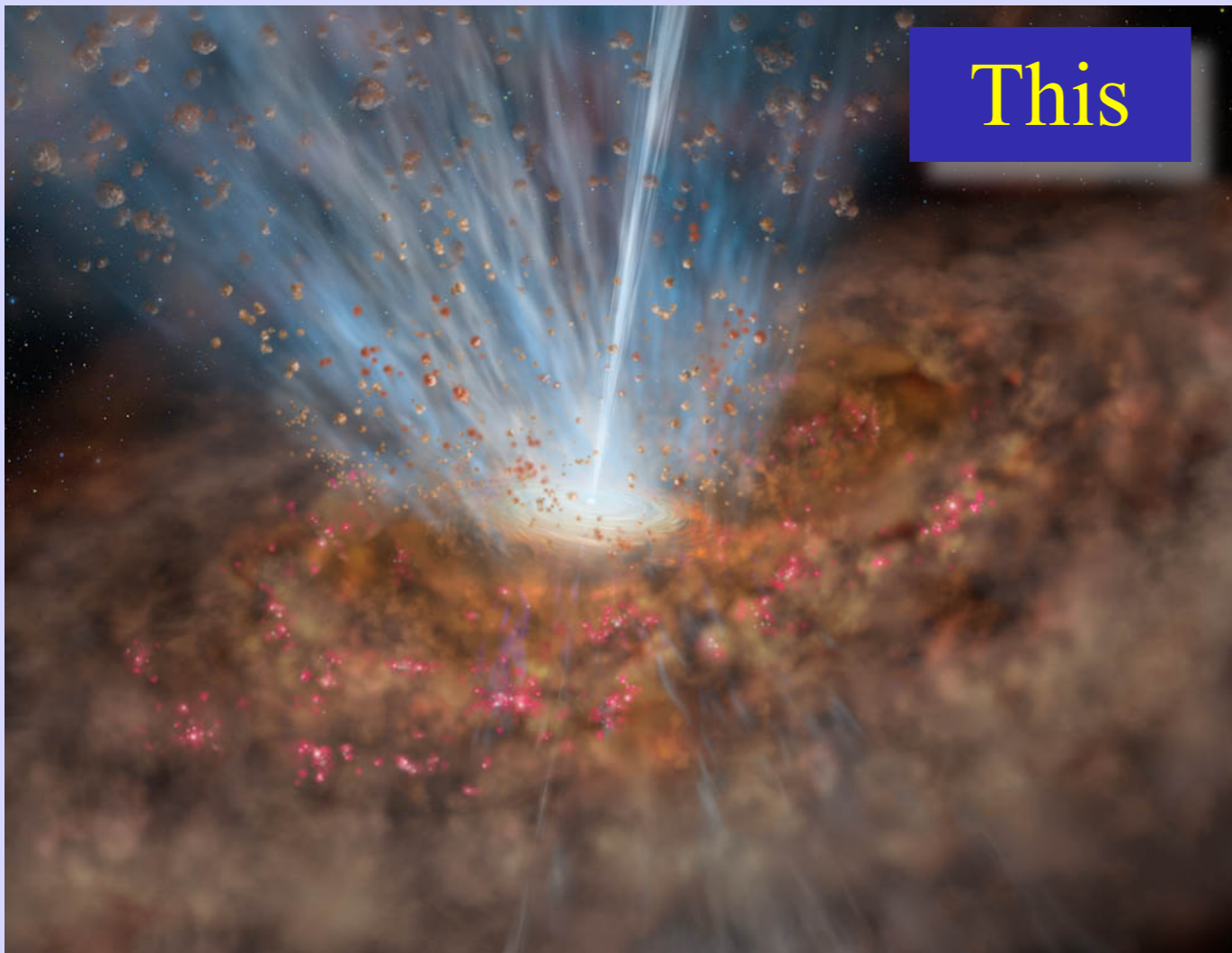
angle not time

“dusty AGN population” is almost certainly just AGN seen from different l.o.s

covering factor etc *may* be a function of L or z (or not...)

no evidence to date of things in different phases

This



Not This

