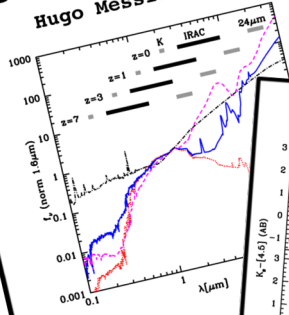




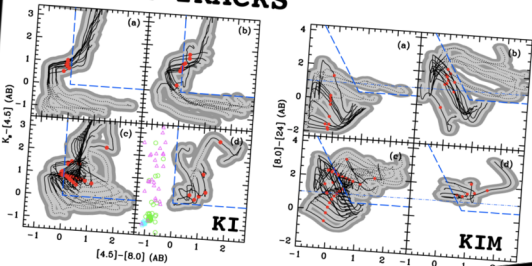
# IDENTIFYING AND CHARACTERISING DUSTY AGN @IR

Hugo Messias (IA)



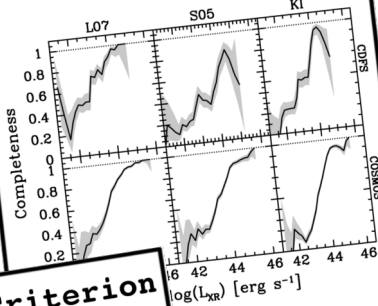
José M. Afonso (IA)  
Mara Salvato (MPE)  
Bahram Mobasher (UCR)  
Andrew M. Hopkins (AAO)

## COLOUR TRACKS

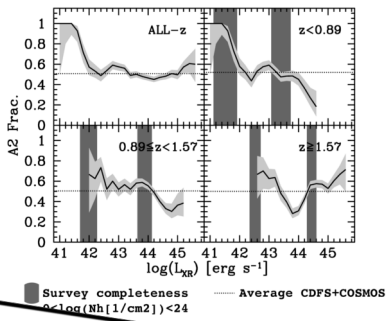


(a) EARLY/LATE (b) STARBUSTS (c) HYBRIDS (d) AGN  
 — CRITERION     $0 < z < 1$      $1 < z < 7$      $z = 2.5$     M

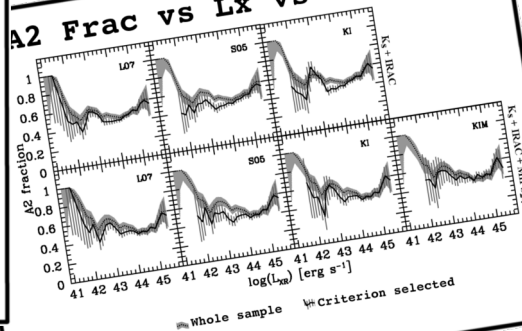
## COMPLETENESS



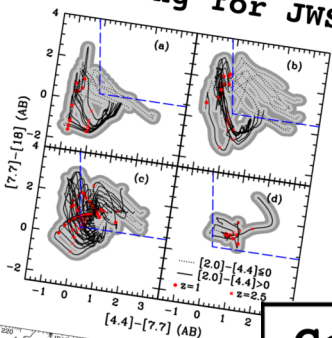
## A2 Fraction vs Lx vs z



## A2 Frac vs Lx vs Criterion



## Preparing for JWST



## Conclusions

- IR-selection - mostly luminosity-dependent;
- Selection-bias to unobscured objects - seems marginal;
- IR-selected A2 fraction - set by the survey depth, since it changes with redshift and luminosity;
- KI and KIM - the best completeness-reliability-z compromise in the market;
- Multi-wavelength approach - ideal for a complete and reliable AGN selection;
- Deep X-ray data - key to recover low-luminosity AGN, as well as high-resolution IR data (e.g., JWST);
- Hard X-ray or wide-field IR-radio - key to recover the rare (highly-)obscured AGN population.

More information in:  
Messias et al. (2012, ApJ, 754, 120)  
Messias et al. (2014, A&A, 562, 144)



## A2 Frac vs z vs obsc method

