

GRBs as Probes: The Galaxy Mass-Metallicity Relation at $3 < z < 5$

Poster Prize Talk (#6.01)

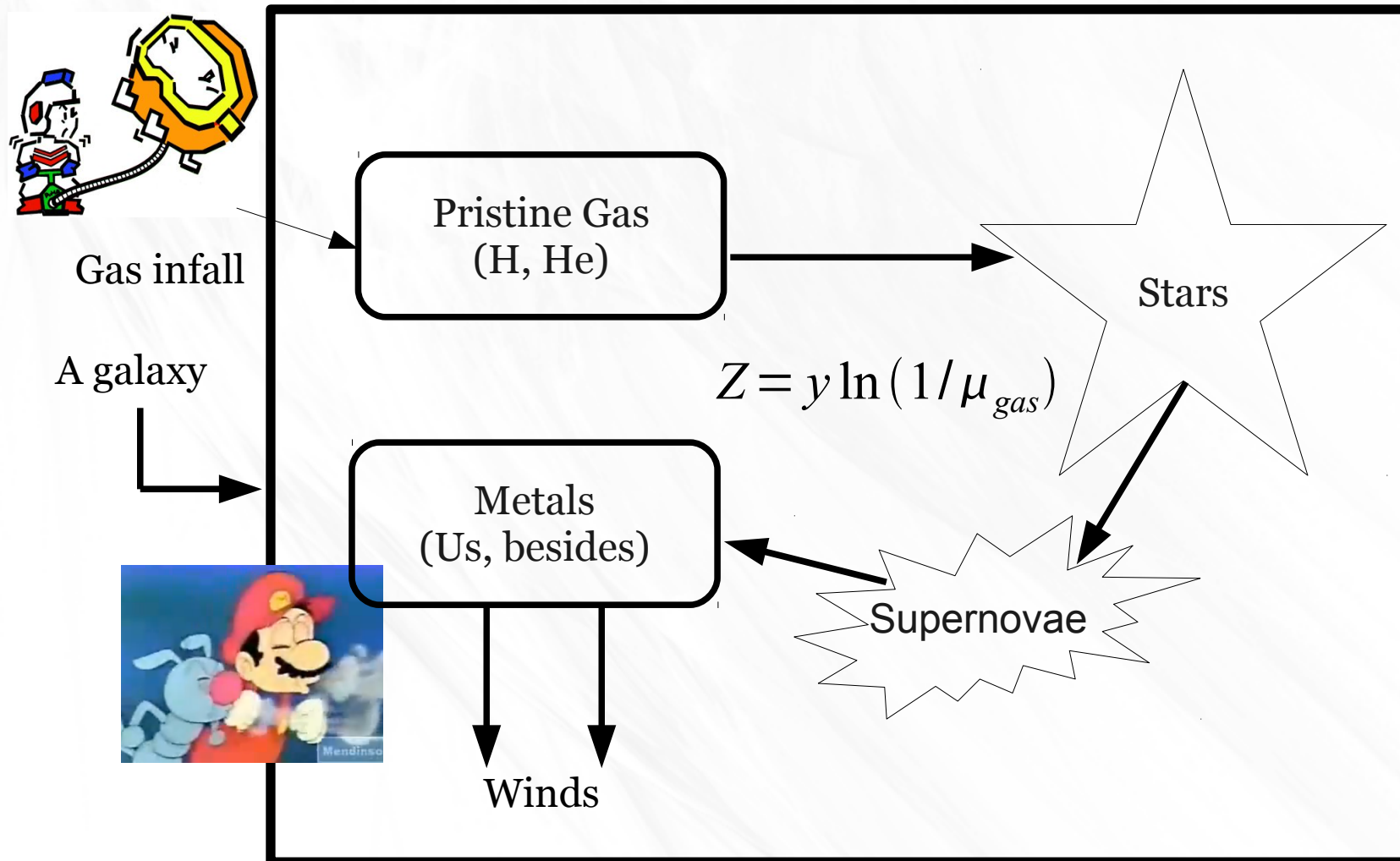
Tanmoy Laskar
Harvard University

In collaboration with

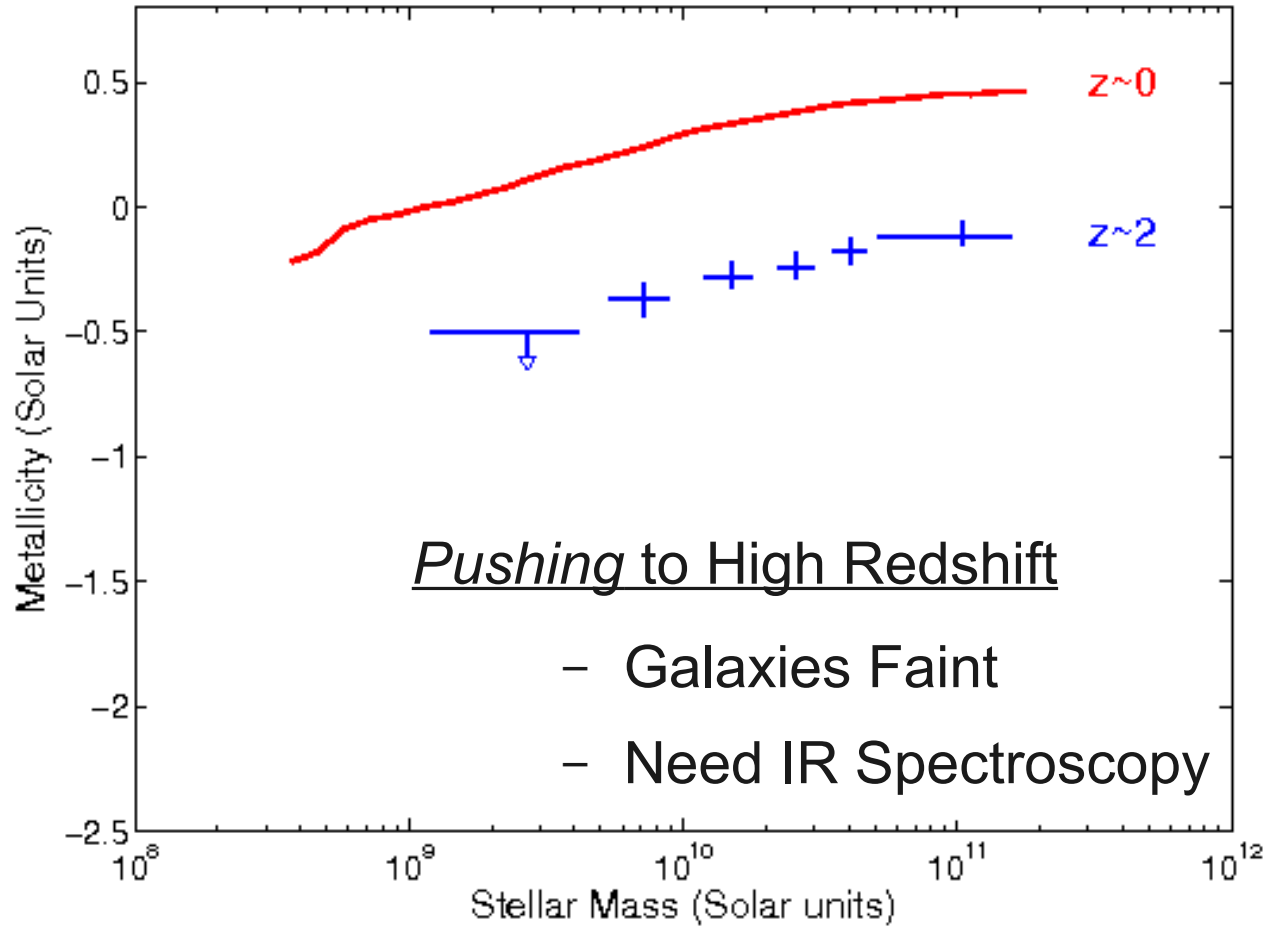
Edo Berger
Harvard University

Ranga-Ram Chary
Spitzer Science Center

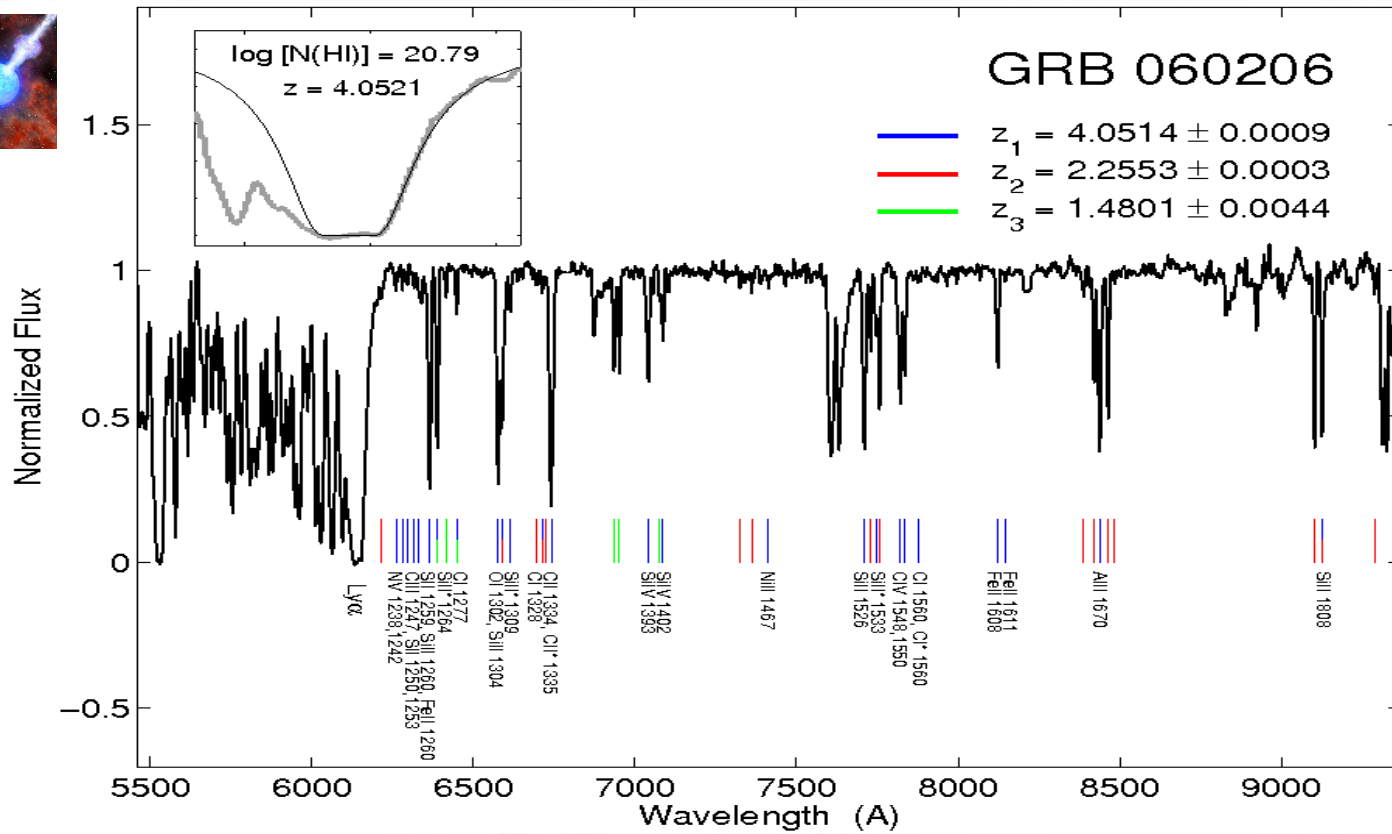
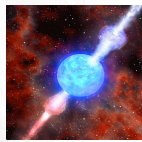
The Closed Box Model



M^* vs $[M/H]$ “nearby”

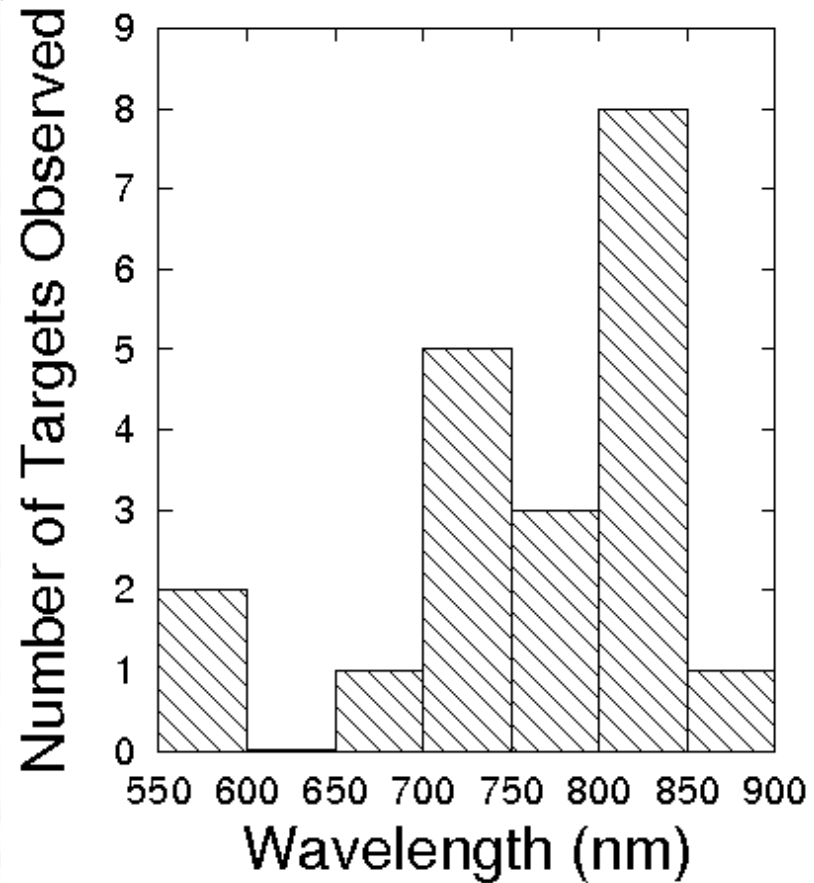
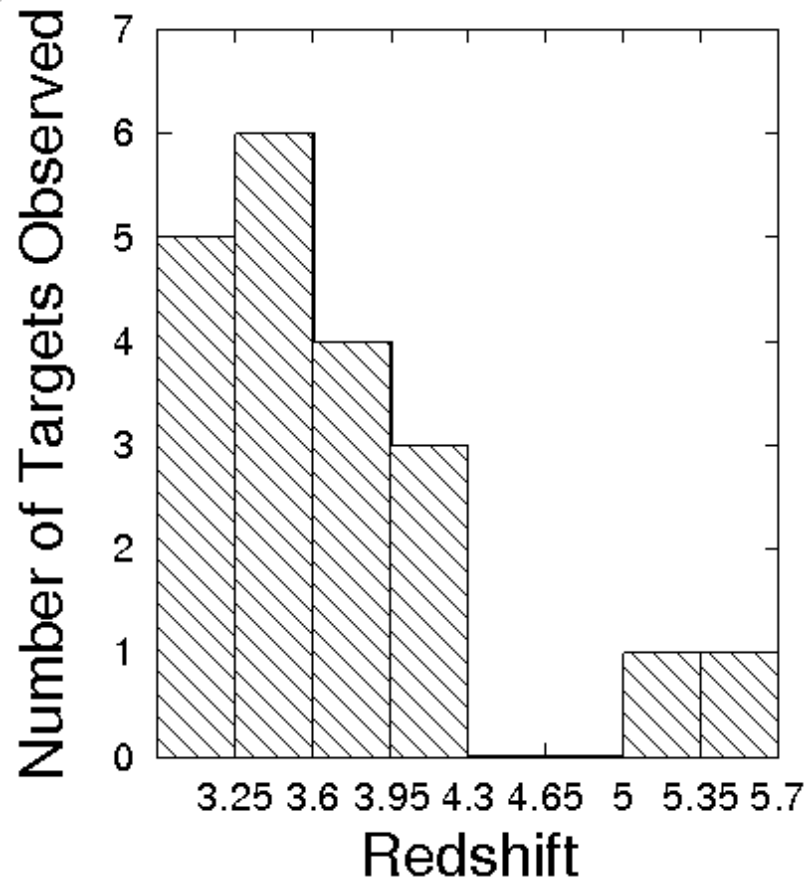
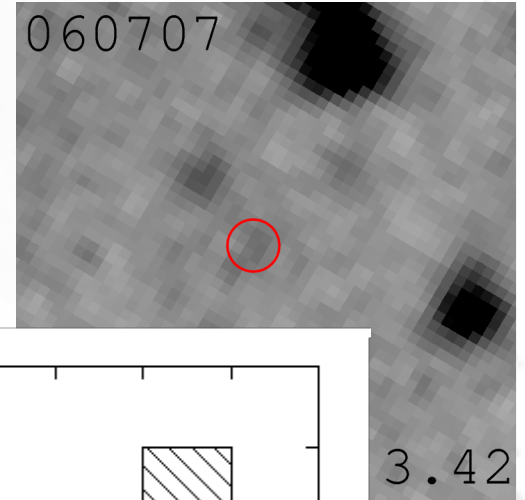


Enter GRBs: Probes of M^* - Z Metallicities (Z)

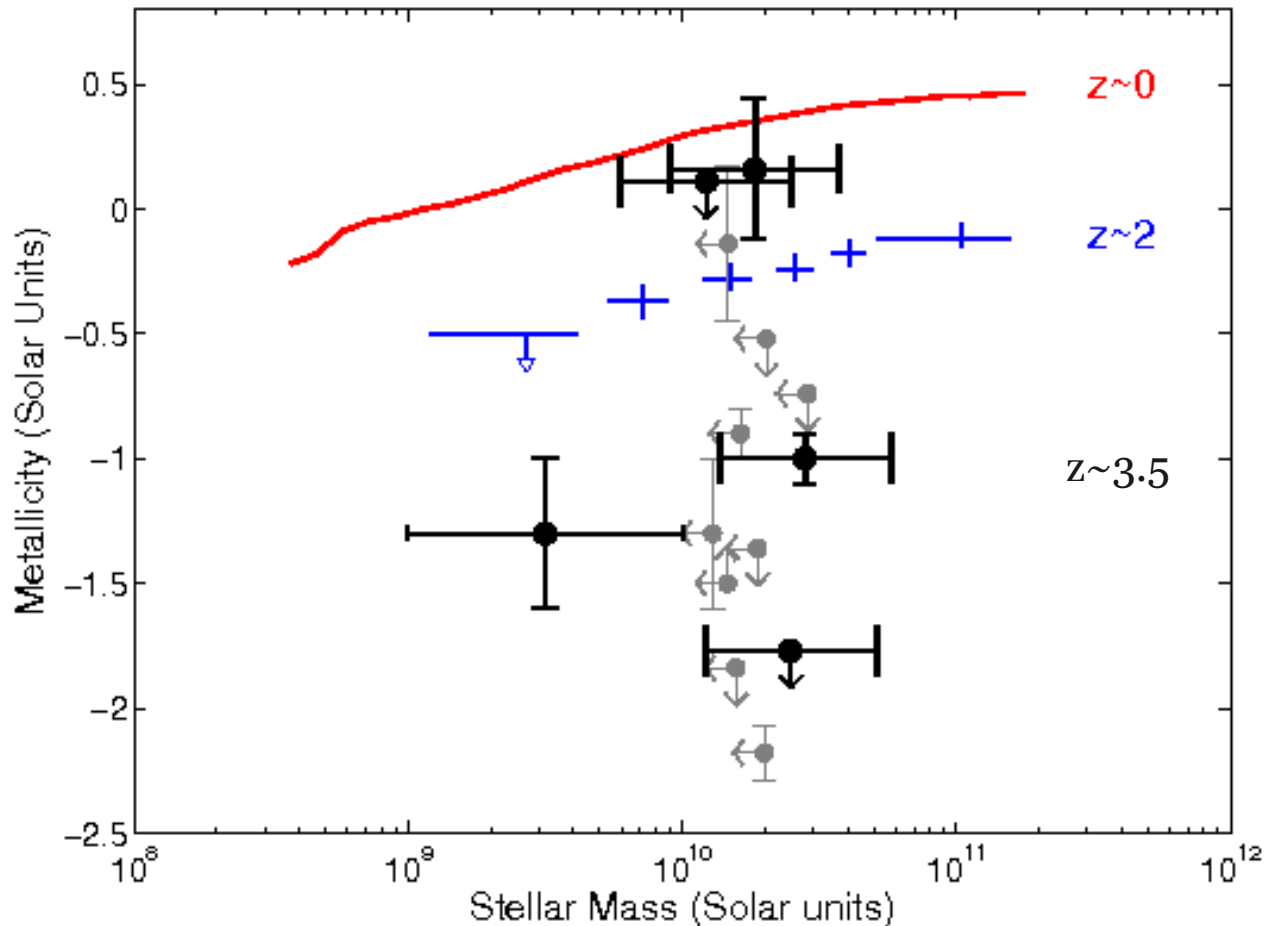


Spitzer Studies of LGRB Hosts

Stellar Masses (M^*)



M^* vs $[M/H]$ at $3 < z < 5$



Conclusions:

- Generally lower $[M/H]$ at high z
- Large scatter in $[M/H]$ at a given M^*
- Some hosts have higher $[M/H]$ relative to galaxies of the same M^*