

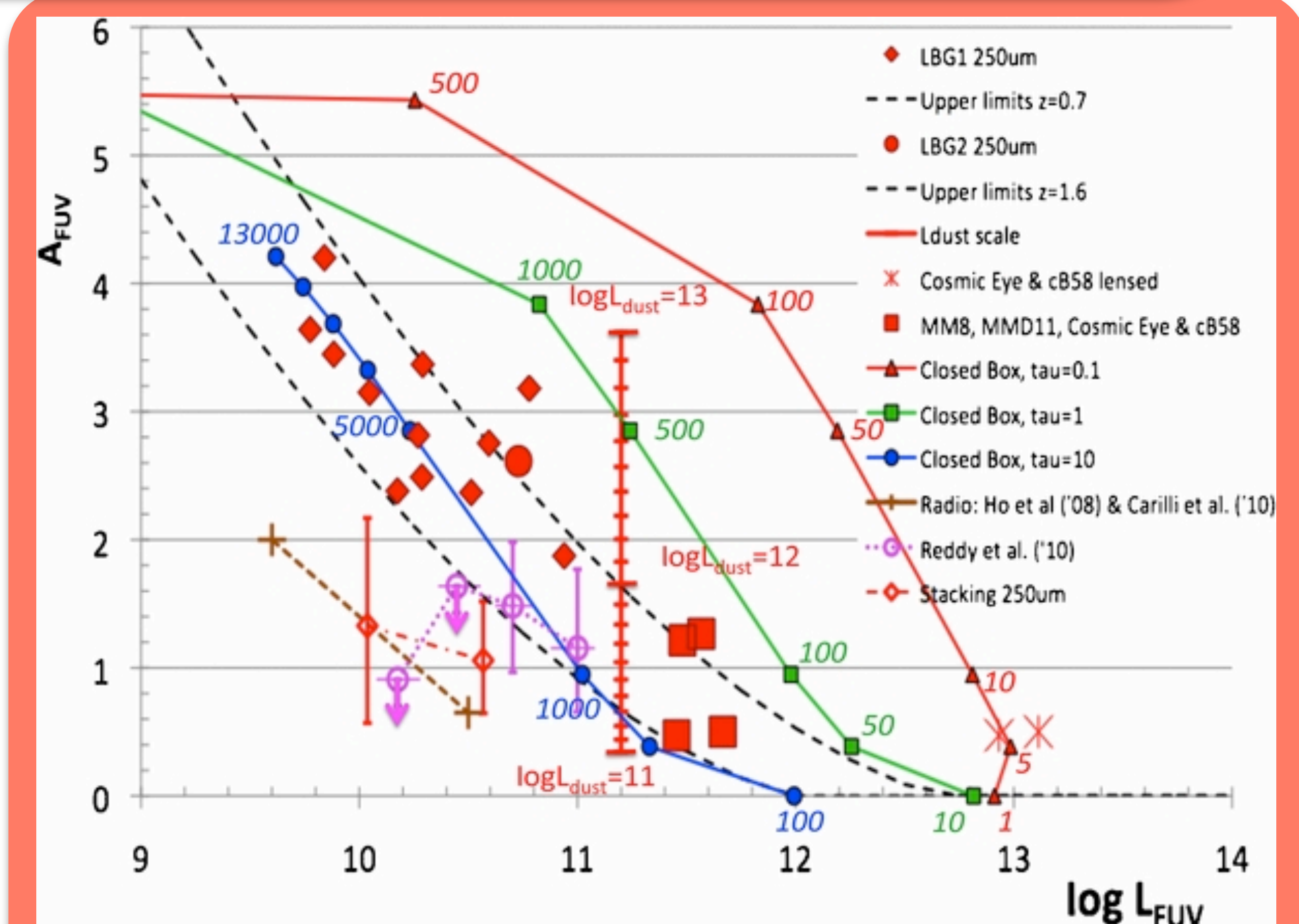
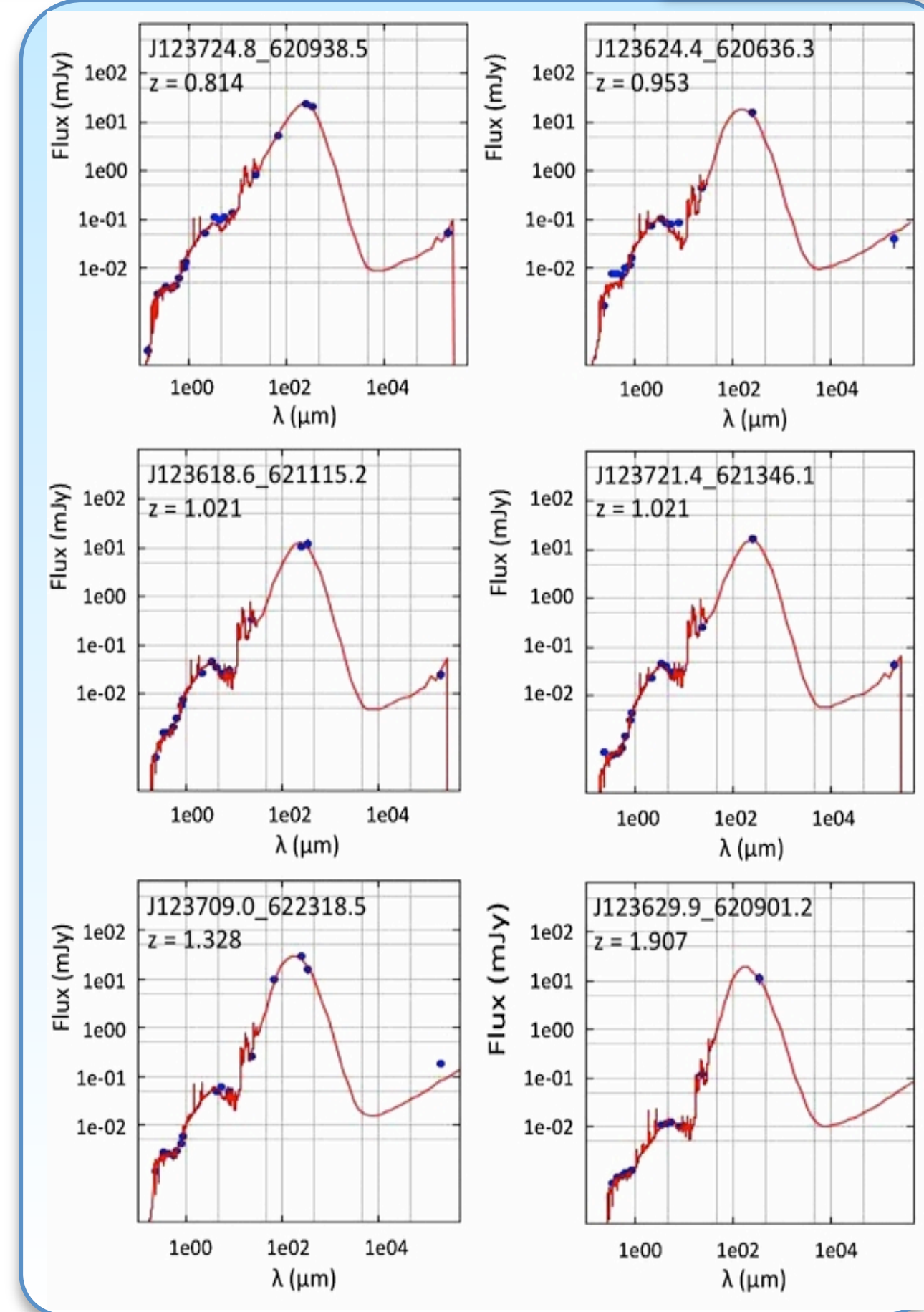
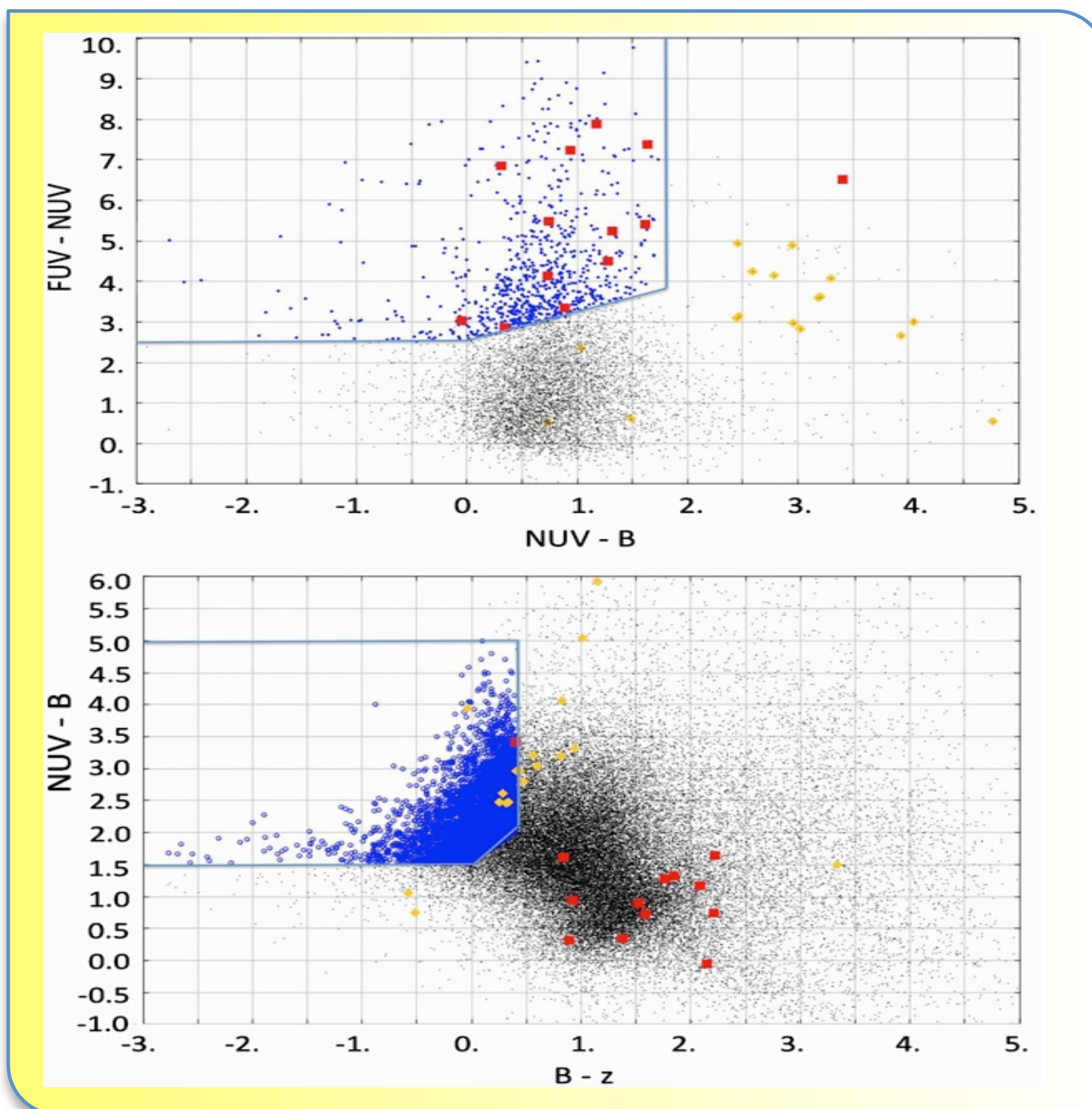
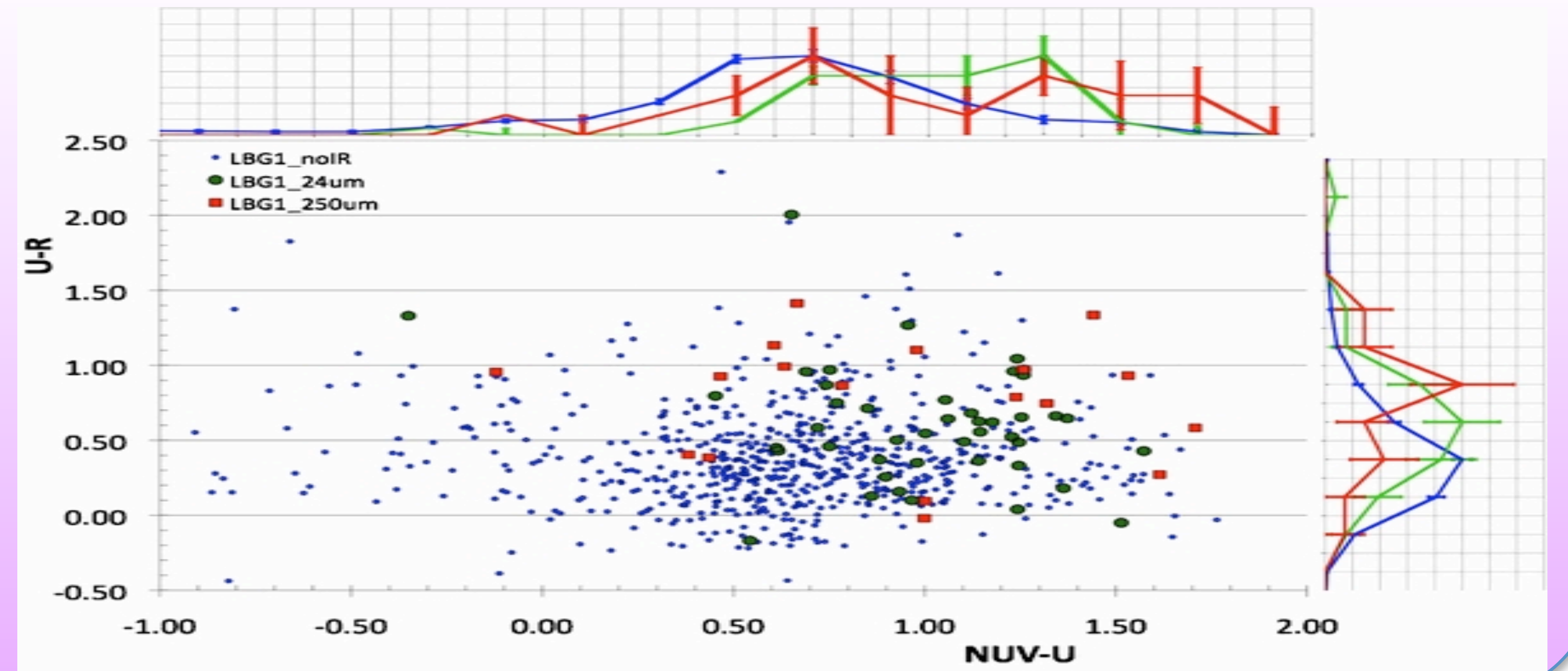
OBSERVATIONS OF LYMAN BREAK GALAXIES WITH HERSCHEL
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AND THE HERMES TEAM

CONCLUSIONS

We have selected two samples of LBGs at $z \sim 1$ and $z \sim 2$. For the first time, we can put constraints on the dust emission and therefore the dust attenuation of LBGs directly from rest-frame FIR measurements of individual LBGs observed with Herschel-SPIRE.

Two main conclusions can be drawn from this analysis:

- 1) We detected 12/260 $\sim 4.6\%$ and 1/1558 $\sim 0.06\%$ of the LBGs at $0.7 \leq z \leq 1.6$ and $1.6 \leq z \leq 2.8$, respectively. All the other LBGs are undetected by SPIRE, and their dust attenuation is lower than the detected LBGs. However, we have to account for the fact that the limits depend on L_{FUV} .
- 2) The maximum dust attenuation in the FUV decreases as UV luminosities increase. We propose that all LBGs lie in a triangle-shaped region in the A_{FUV} versus $\log L_{FUV} = 0$ diagram limited by dust-free (small and/or young) galaxies to the bottom and by the locus for evolving most massive galaxies to the top.



Red diamonds are LBGs detected by Herschel. Two big red stars are the 2 high-z LBGs (the Cosmic Eye and cB58) as observed, while the big red squares are the same after correcting for the amplification plus two unlensed ones. Blue dots, green boxes, and red triangles are the closed-box models, plotted as a function of time (age in Myr) increasing from the bottom right to the top left part of the diagram.

- All the models would scale to the left with decreasing mass.
- The vertical scale provides the values of L_{IR} in steps of 0.1 dex.
- The two crosses linked by a dashed line are radio-based measurements.
- The purple open dots are the stacked points from Reddy et al. (2010).
- The red open diamonds correspond to stacked points at $z \sim 1$ from our sample

More to come soon in the
FIR emission from LBGs
at $z > 3$... Stay Tuned