

The _____ massive

The _____ luminous

The _____ distant

The most massive

The most luminous

The most distant

most or -est

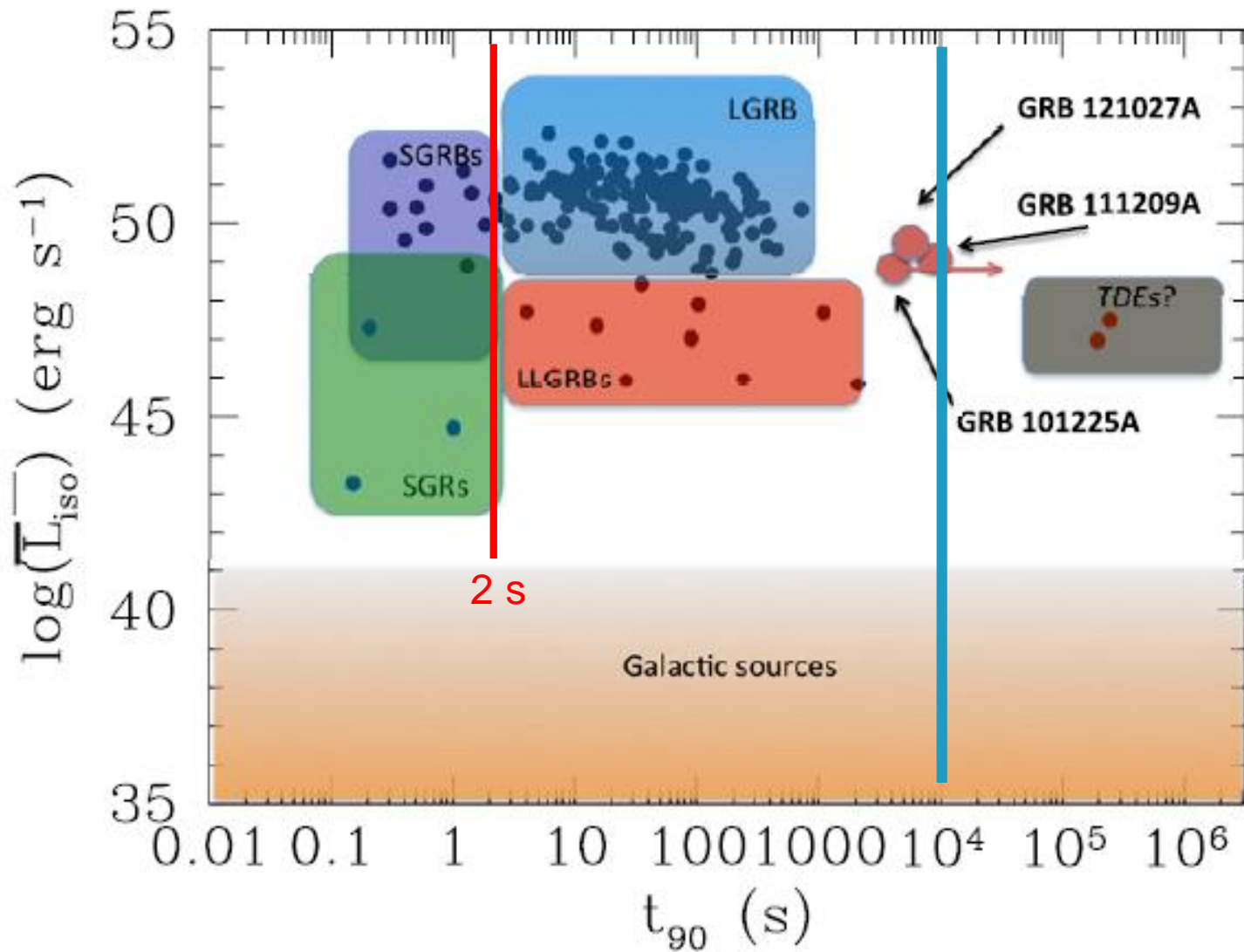
Always have something interesting in it!!

7 hours duration's

Ultra-long Gamma Ray Burst
So

GRB 111209A



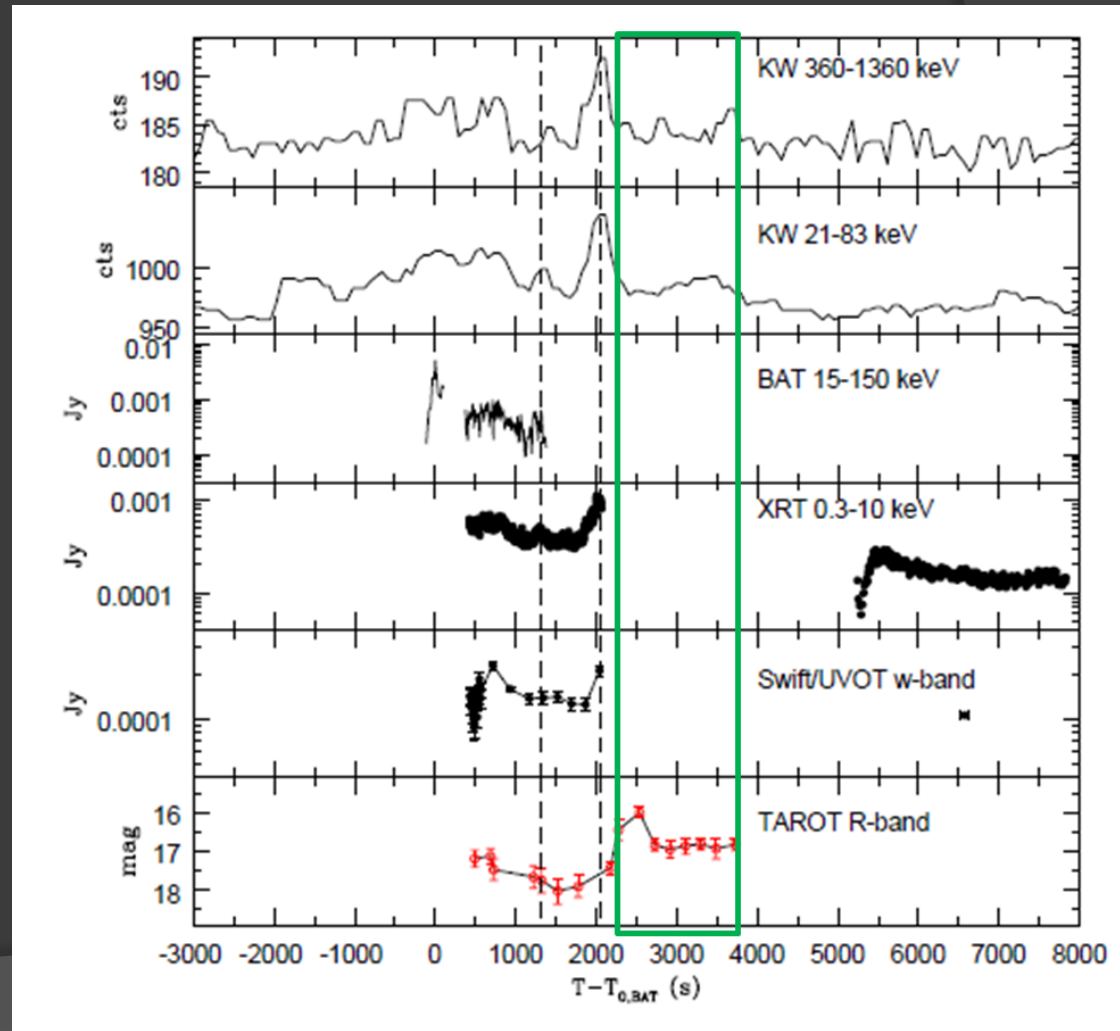


Levan et al.(2014)

What I have..

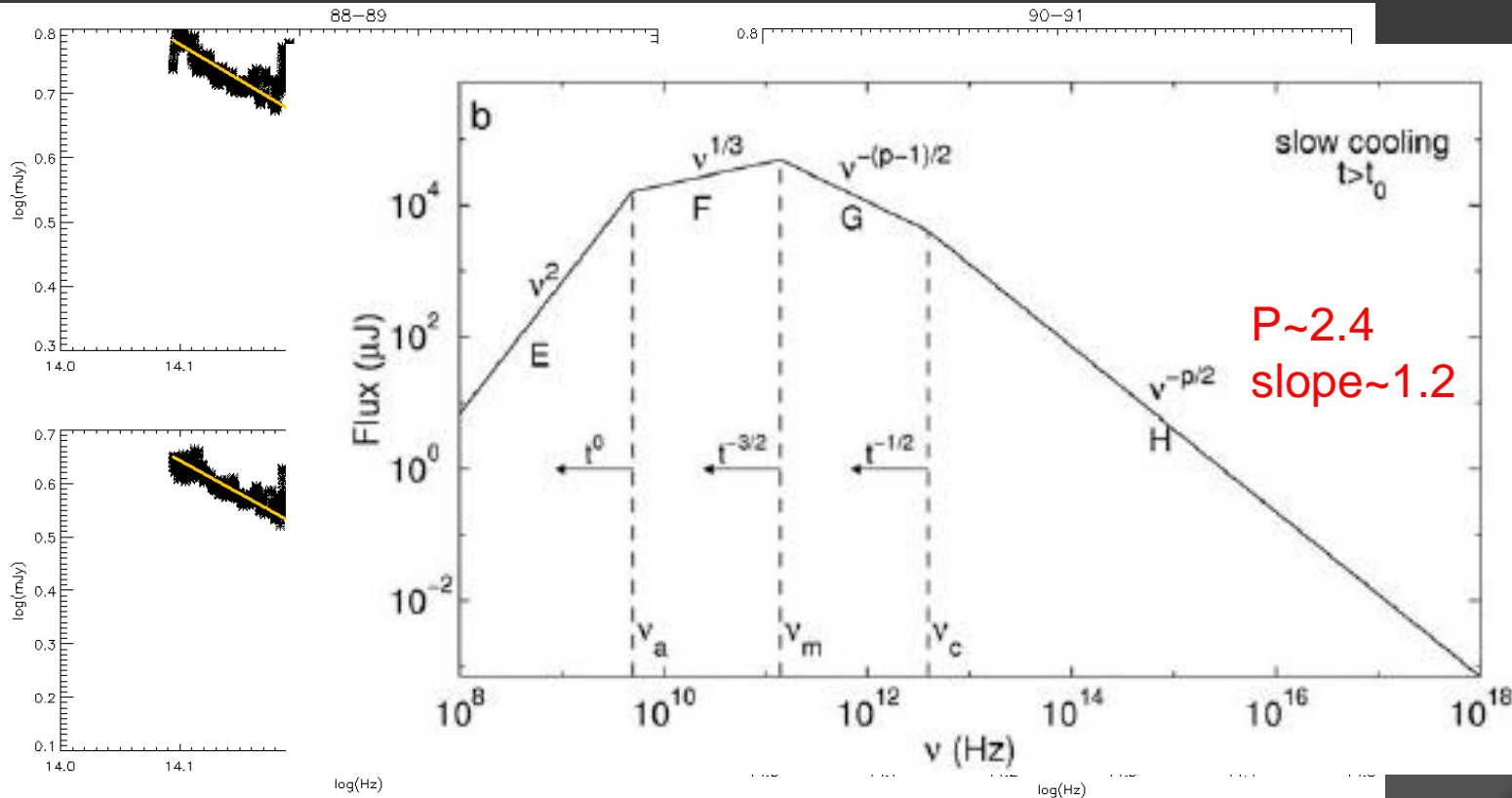
NIR data taken at $T_0 + 40\text{min}$

From IRTF(0.8-2.4 μm)



What I found

The spectrum shows standard model's slow-cooling. = afterglow emission



Thank you!