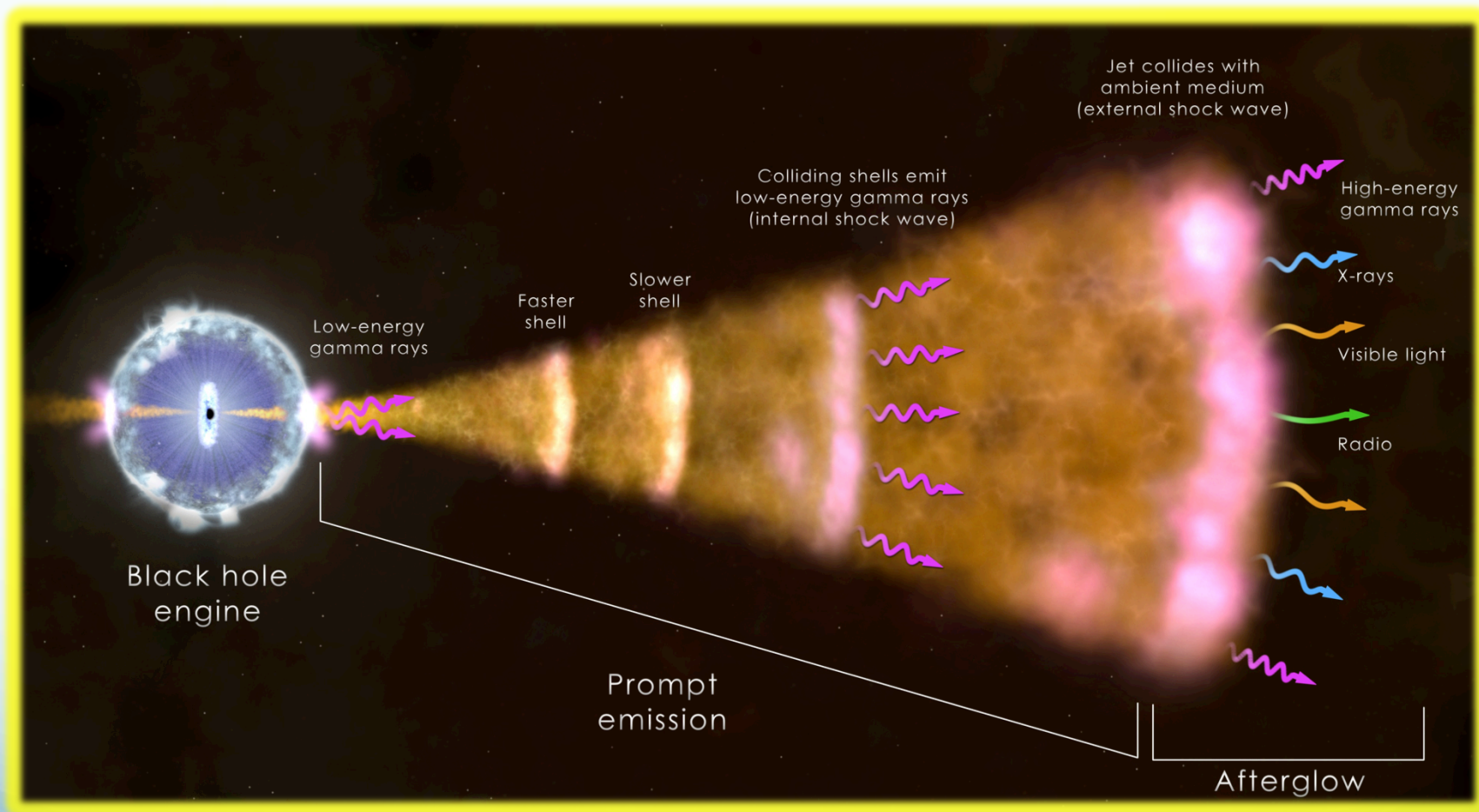


**A study of the joining-spectral fit of GRBs
observation detected by Fermi/ GBM and
Swift/ BAT**

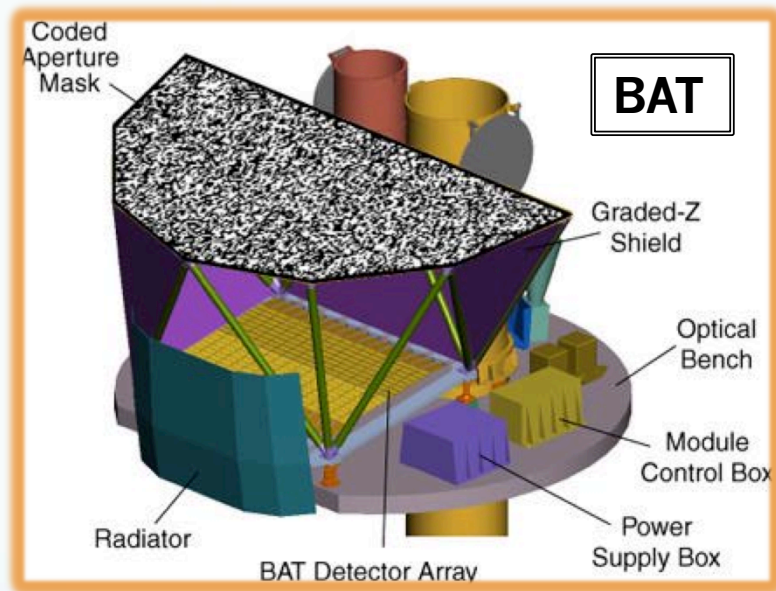
**Eman M. Moneer
University of Leicester
XROA Group**

Fermi Summer School 2015

How GRBs produced?



Observations

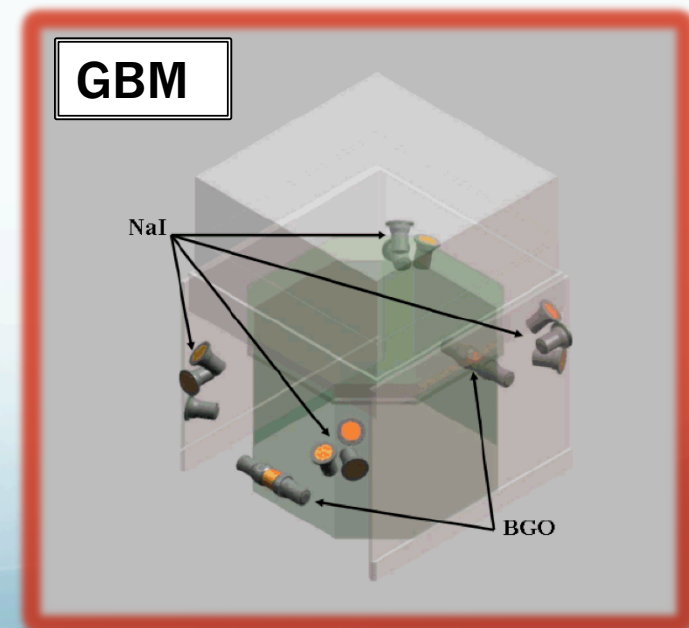


Swift BAT

- ~ 15-150 keV
- Cadmium zinc telluride (CZT)
- (FoV) of ~ 1.4 Sr

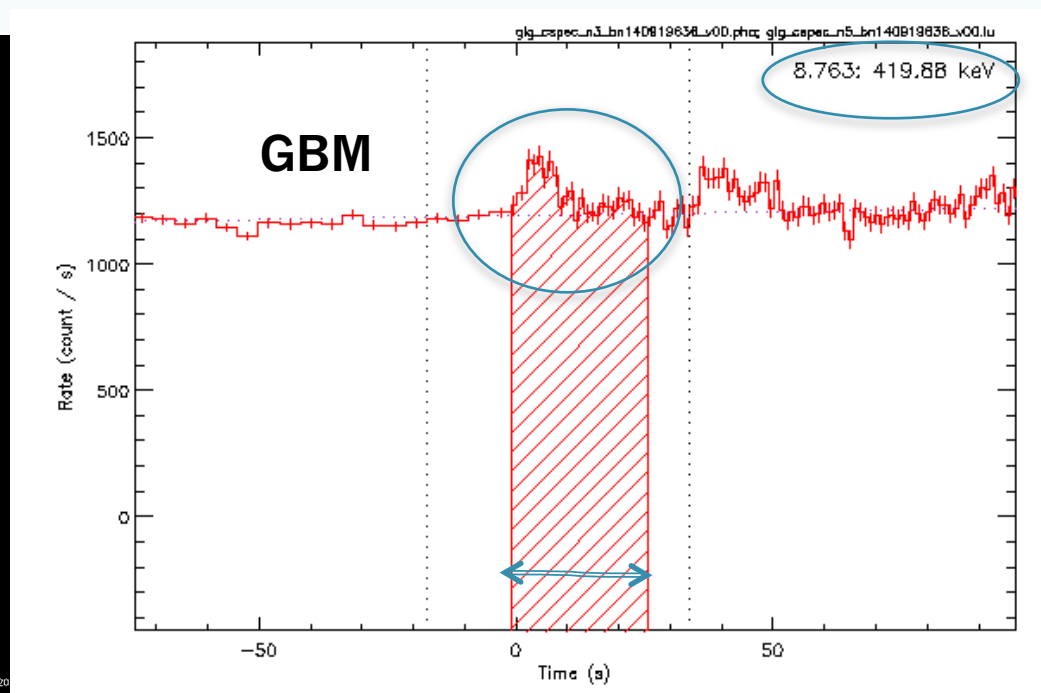
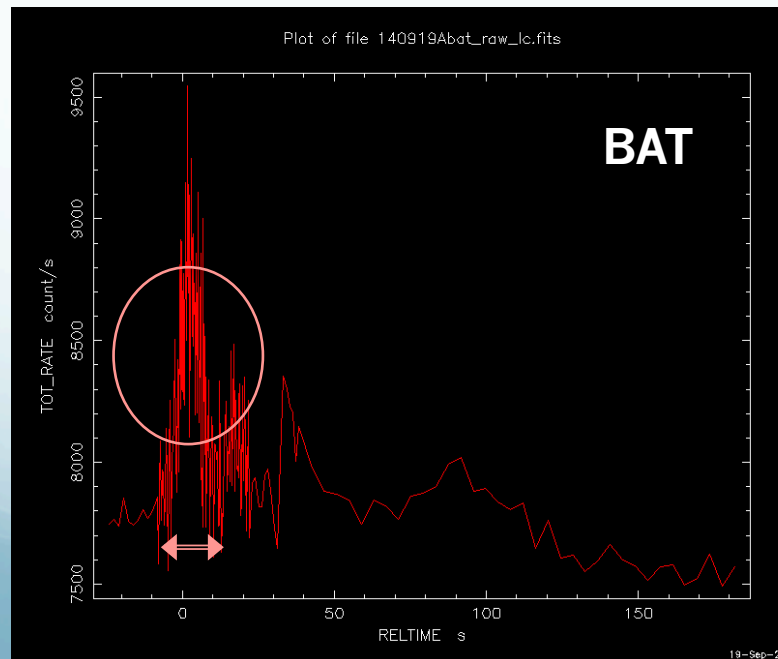
Fermi GBM

- 12 Thallium-activated sodium iodide [NaI(Tl)] (8 keV to 1MeV)
- 2 Bismuth Germanate (BGO) (200 keV to 40 MeV)
- (FoV) of ~ 8.6 Sr



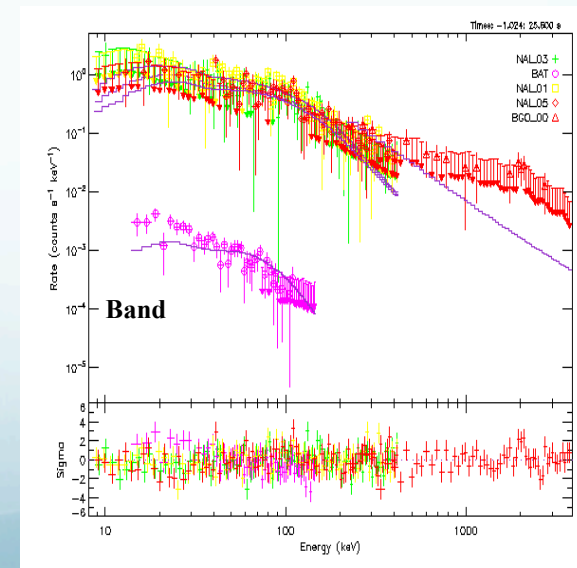
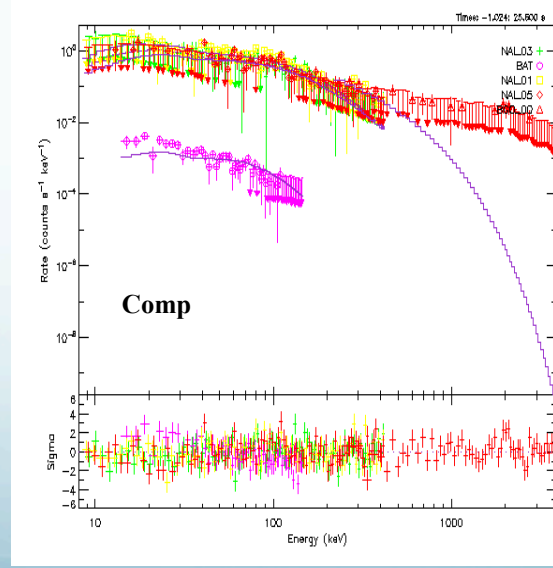
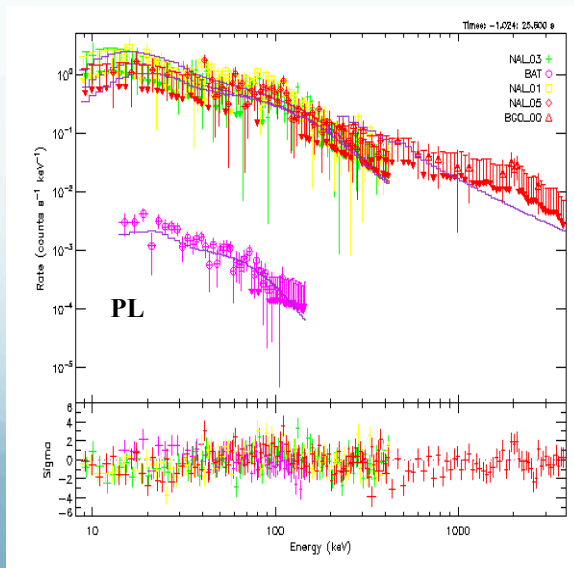
Spectral- Joint fit

- **GRB140919A**
- **T_{90} lasting: GBM~ 109s BAT ~152s**
- **Time intervals (-1.02s to 25.6 s)**



Spectral fitting ...

RMFIT	E_{peak} (keV)	Beta β	Alpha α	Index Γ	P-flux (ph/s-cm ²)	E-flux (erg/s-cm ²)	E-Fluence erg/cm ²	χ^2 /dof
PL	-	-	-	-1.39+/- 0.03	1.15+/- 0.045	2.23E-07 +/- 8.6E-09	5.97E-06 +/-2.30E-07	541/390
COMP	263+/- 35.2	-	-	-0.66+/- 0.13	1.00 +/- 0.047	1.74E-07 +/- 1.4E-08	4.67E-06 +/-3.76E-07	483/389
BAND	185+/- 46.4	-1.92+ /- 0.21	-0.44+/- 0.2	-	0.98 +/- 0.047	1.93E-07 +/- 1.3E-08	5.16E-06 +/-3.48E-07	479/388



Any Question ..