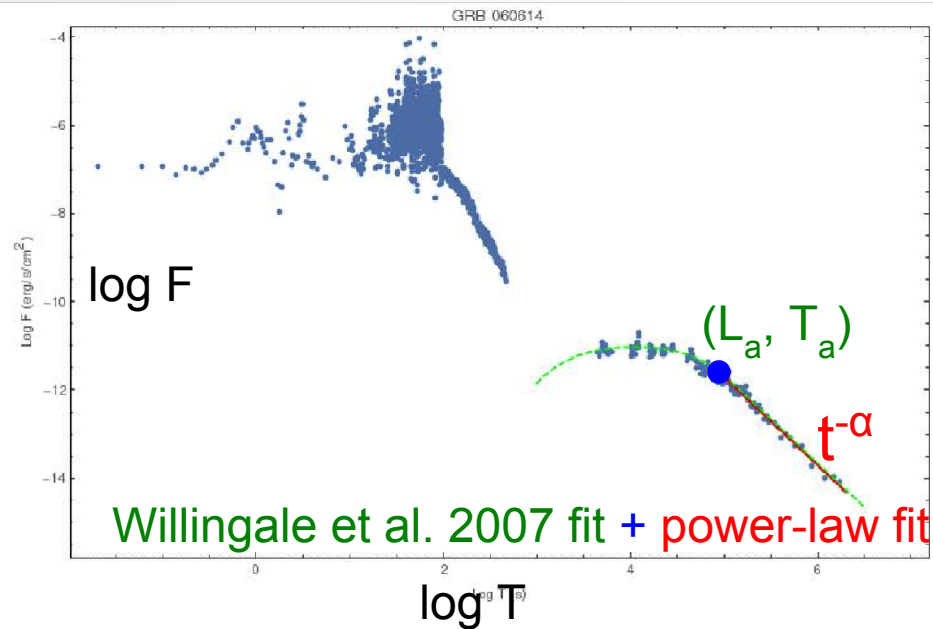


Study of GRB light curve decay indices in the afterglow phase

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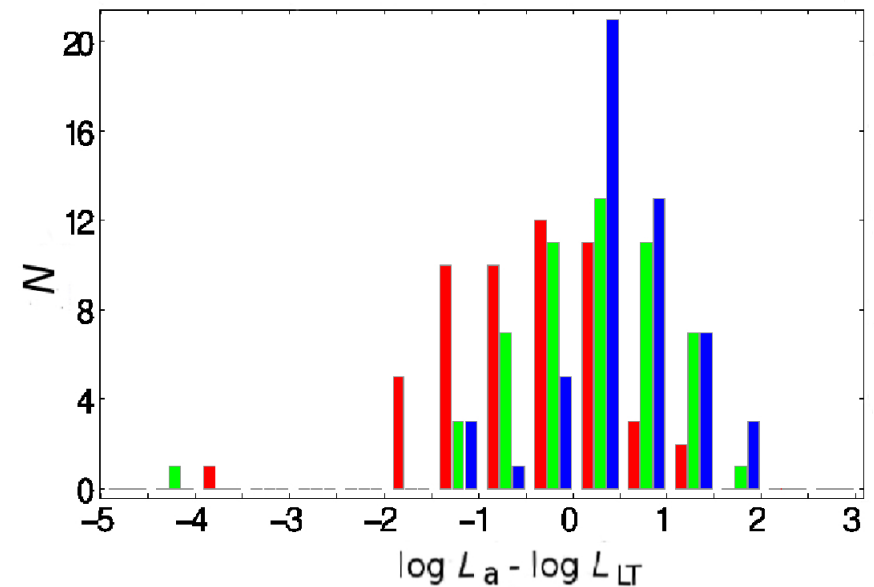
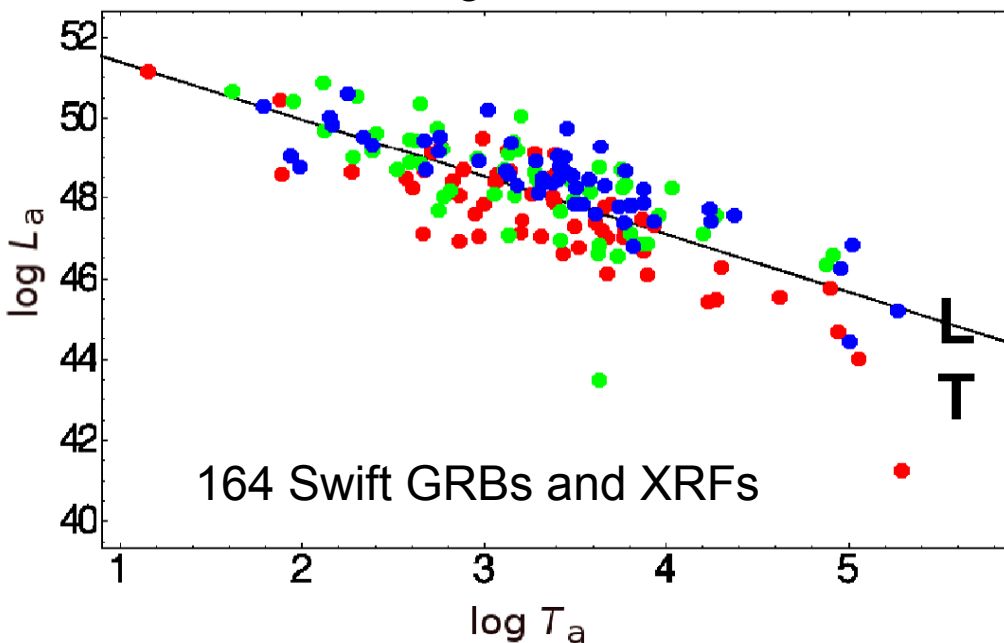


log L_a - log T_a (LT) correlation [Dainotti et al. 2008, ...]

The afterglow **power-law decay index** ranges:
 0.53 < α < 1.23 (red), 1.23 < α < 1.54 (green) and
 1.54 < α < 3.41 (blue).

A correlation between log L_a/L_{LT} and α at any T_a:

$$\log L_a - \log L_{LT} = 0.64 \alpha - 0.90$$



- > GRB progenitor physical models
- > possibility of GRB standardization vs. α