

GRB181222B: Short and bright burst. Precursor starts at around  $T_0=2018-12-22\ 20:11:36.197430$  (cross correlated with KW)

$T_{90}$  starts at peak in the precursor and ends at the end of the burst.

Background: Stable. Polynomial approximation (0-th degree). 1. interval  $t_i=T_0-0.85$  s,  $t_f=T_0-0.25$  s.  
2. interval:  $t_i= T_0+0.45$  s  $t_f=T_0+1.0$  s

Fermi GBM reports  $T_{90}$  of about 0.5 s (50-300 keV)  
<https://gcn.gsfc.nasa.gov/gcn3/23551.gcn3>

$T_{90}$  estimations (binsize, Start time of the estimation of the mean total counts,  $T_{90}$ ):

- 0.001s,  $T_0+0.5$  s: 0.244 s
- 0.002s,  $T_0+0.5$  s: 0.246 s
- 0.004s,  $T_0+0.5$  s: 0.236 s
- 0.008s,  $T_0+0.5$  s: 0.232 s
- 0.016s,  $T_0+0.5$  s: 0.224 s

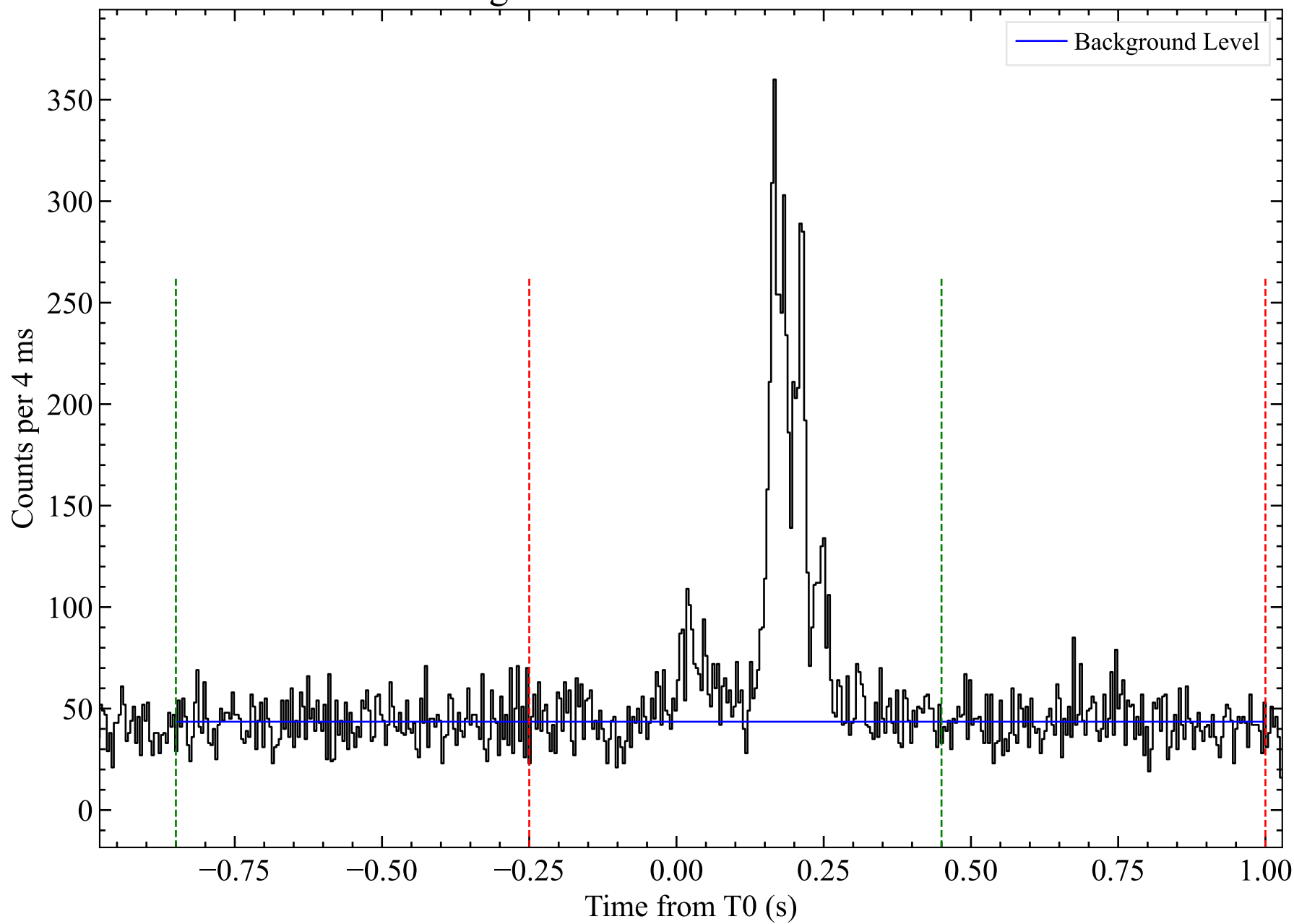
$T_{50}$  estimations (binsize, mean\_start\_time,  $T_{50}$ ):

- 0.001s,  $T_0+0.5$ : 0.051 s
- 0.002s,  $T_0+0.5$ : 0.052 s
- 0.004s,  $T_0+0.5$ : 0.052 s
- 0.008s,  $T_0+0.5$ : 0.048 s
- 0.016s,  $T_0+0.5$ : 0.048 s

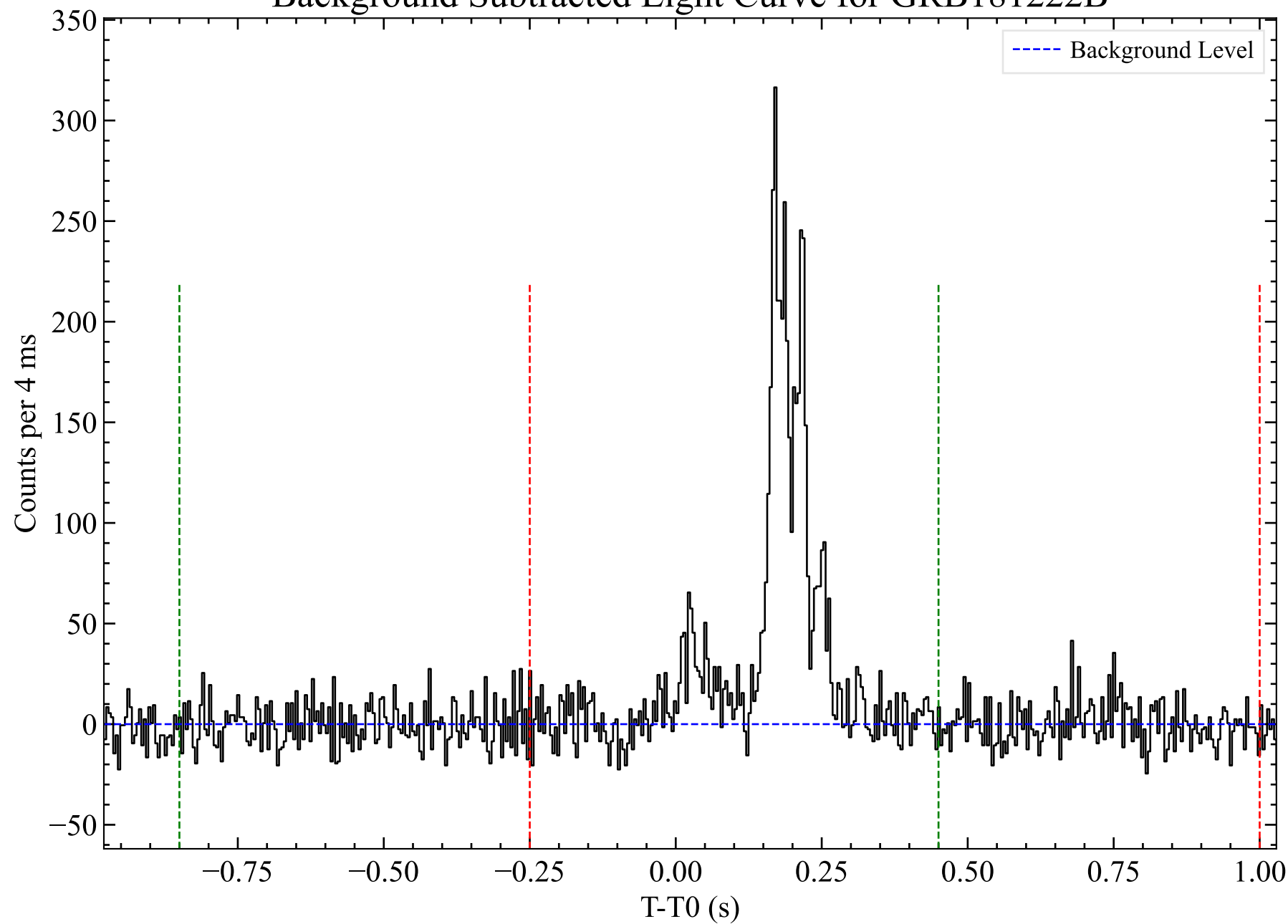
Polynomial for background (binsize, polyCoef):

- 0.001s: 10.863
- 0.002s: 21.725
- 0.004s: 43.537
- 0.008s: 87.097
- 0.016s: 174.268

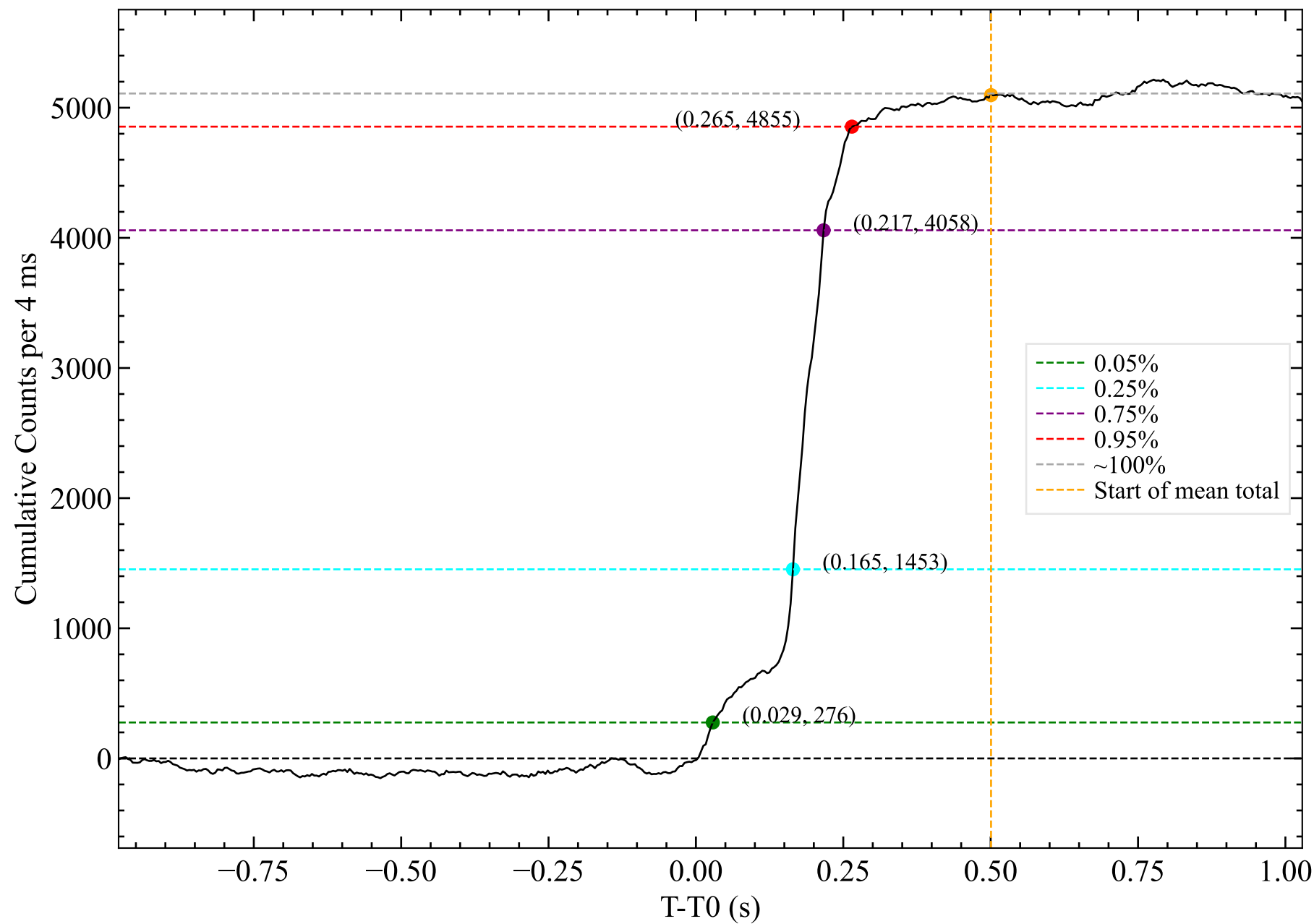
# Light Curve for GRB181222B



Background Subtracted Light Curve for GRB181222B



# Cumulative Counts for GRB181222B



# GRB181222B Background Subtracted Light Curve

