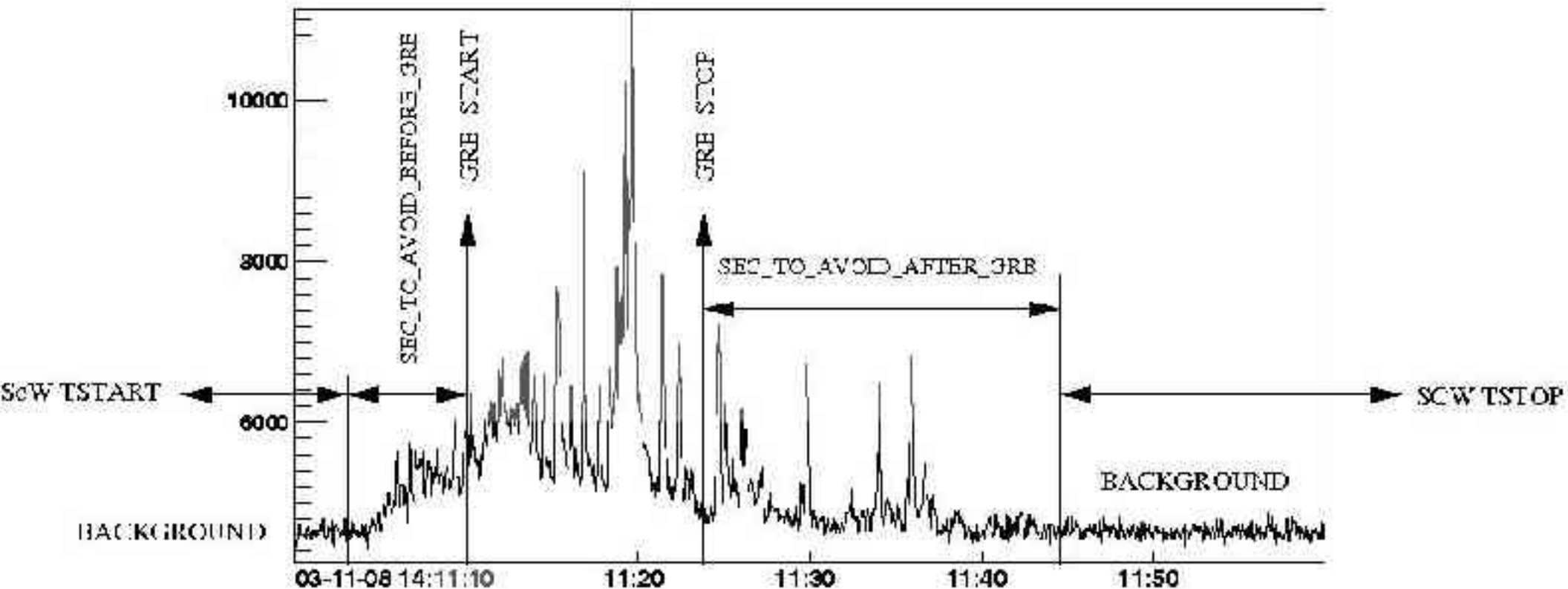


GRB: SPI analysis

- `spi_grb_analysis <grb_start> <grb_stop> UTC/IJD`
`<sec_to_avoid_before_grb> <sec_to_avoid_after_grb>`



GRB analyses

- ♦ Follow the tutorial “GRB image analysis” and “GRB spectral analysis” from the WWW SPI pages.
 - 1) Set up the environment
 - 2) Create an OG with the (single) ScW
 - 3) Run `spi_science_analysis` to enter the analysis parameters
 - 4) Run `spi_grb_analysis`

GRB analyses

- ◆ `spi_grb_analysis <grb_start> <grb_stop> UTC/IJD`
`<sec_to_avoid_before_grb> <sec_to_avoid_after_grb>`
(shell script calling `spi_science_analysis`, `spi_obs_gti`, `spi_dsp2back`)
 - 1) Derive background before the burst
 - 2) Derive background after the burst
 - 3) Sum, rescale, and subtract background
 - 4) Run `spi_science_analysis` on the burst time interval

SPI complex analysis philosophy

- ◆ Image analysis in wide E bin: search for a few bright sources
- ◆ Identified detected sources and run the analysis again fixing their positions and searching for a few fainter sources
- ◆ Continue this process until no additional significant sources are found and carefully check the Chi2 residuals
- ◆ If the Chi2 is high, run the analysis again allowing for one source to vary with a given time scale (with spiros in timing mode) and check whether Chi2 residual can be reduced significantly
- ◆ Extract spectra for all significant sources simultaneously using catalogue positions and timing information in necessary