## **Identification of Non-Poissonian Peak**

By:

Priyanka Shahane Shabnam Iyyani & Vidushi Sharma

# Input files

- Generated Quad\_clean.evt with Threshold ratio:
  par\_det\_count\_thresh/par\_pix\_count\_thresh = 1000/100
  OR,
- bc.evt file

| GRBNAME                    | Orbit                       | No Of Peaks  |              |              | Astrosat GRB<br>Trigger Time | Detected Peak<br>Time | Difference |
|----------------------------|-----------------------------|--------------|--------------|--------------|------------------------------|-----------------------|------------|
|                            |                             | 3<br>(Sigma) | 5<br>(Sigma) | 7<br>(Sigma) |                              |                       |            |
| GRB170115743<br>GRB170115B | 964_07040<br>quad_clean.evt | 9            | 4            | 2            | 222198554.034                | 222198554.394         | 0.36       |
| GRB170115743<br>GRB170115B | 964_07040<br>bc.evt         | 19           | 11           | 7            | 222198554.034                | 222198554.394         | 0.36       |

# Results of Peak search

| GRBNAME                    | Orbit     | No Of Peaks  |              |              | Astrosat GRB<br>Trigger Time | Detected Peak<br>Time          | Difference           |
|----------------------------|-----------|--------------|--------------|--------------|------------------------------|--------------------------------|----------------------|
|                            |           | 3<br>(Sigma) | 5<br>(Sigma) | 7<br>(Sigma) |                              |                                |                      |
| GRB170109137               | 950_06942 | 1            | 0            | 0            | 221627855.378                | 221625401.356                  | 2454.022             |
| GRB170101116<br>GRB170101B | 938_06826 | 5            | 1            | 0            | 220934837.867                | 220934844.26<br>220933561.26   | 6.393<br>1276.607    |
| GRB170115662               | 964_07039 | 2            | 0            | 0            | 222191556.933                | 222196335.388<br>222196345.388 | 4778.455<br>4788.455 |
| GRB170115743<br>GRB170115B | 964_07040 | 9            | 4            | 2            | 222198554.034                | 222198554.394                  | 0.36                 |
| GRB170121614               | 972_07133 | 4            | 2            | 0            | 222705862.414                | 222705869.617<br>222705871.617 | 7.203<br>9.203       |
| GRB170131969               | 996_07281 | 1            | 0            | 0            | 223600499.358                | 223602118.719                  | 1619.361             |

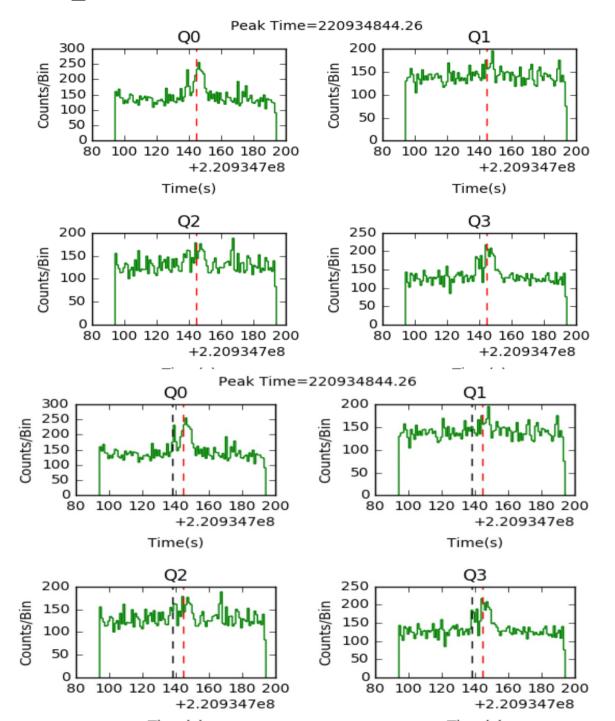
221292847.0 221292847.241

0.241

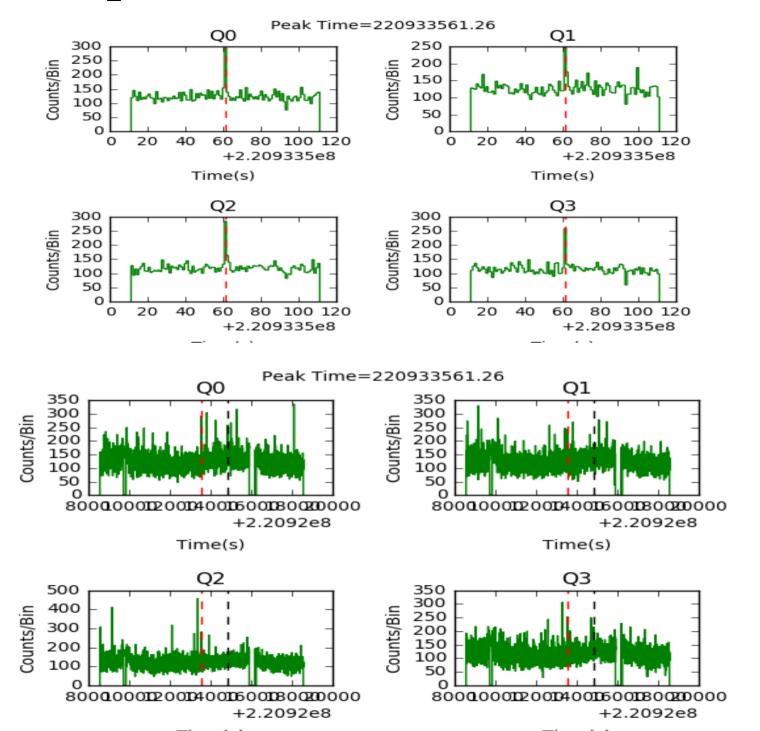
948\_06884

**GRB170105A** 

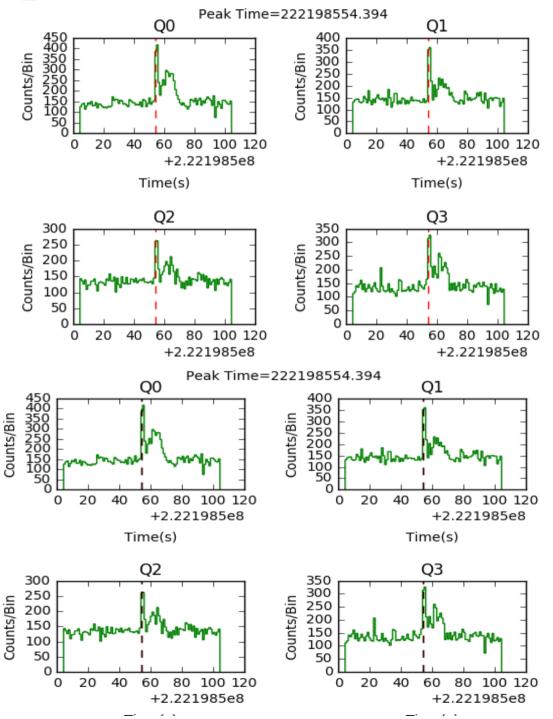
#### GRB NAME=GRB170101116 orbit=938\_06826 Astrosat\_time=220934837.867 Detected Peak Time=220934844.26



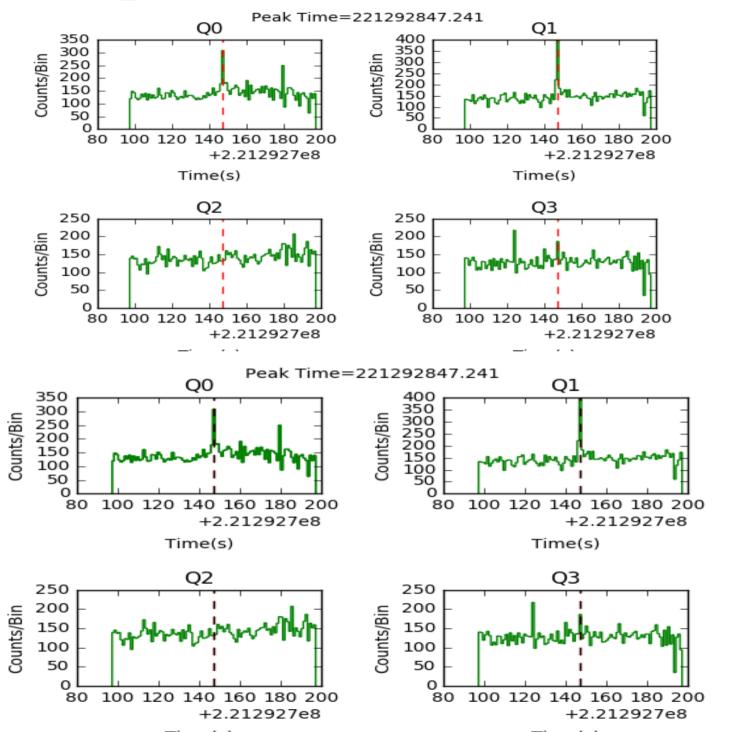
#### GRB NAME=GRB170101116 orbit=938\_06826 Astrosat\_time=220934837.867 Detected Peak Time=220933561.26



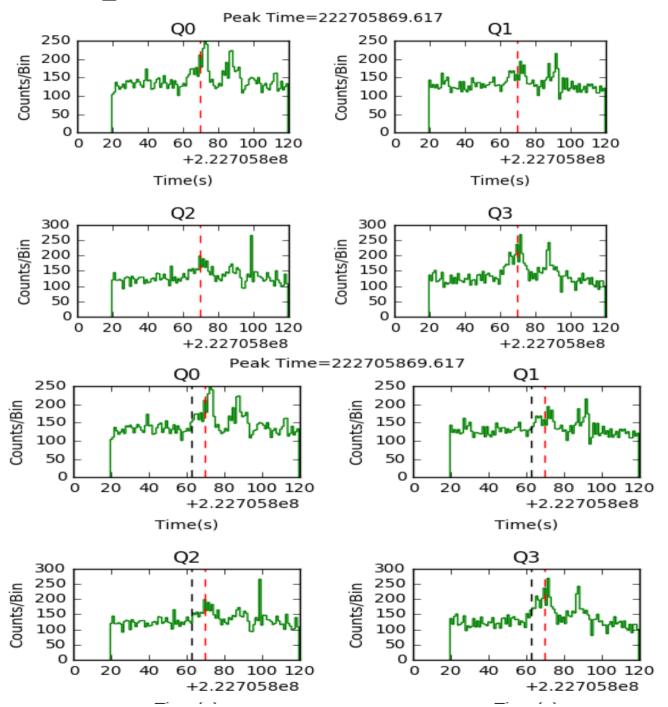
### GRB NAME= GRB170121614 orbit=964\_07040 Astrosat\_time=222198554.034 Detected Peak Time=222198554.394



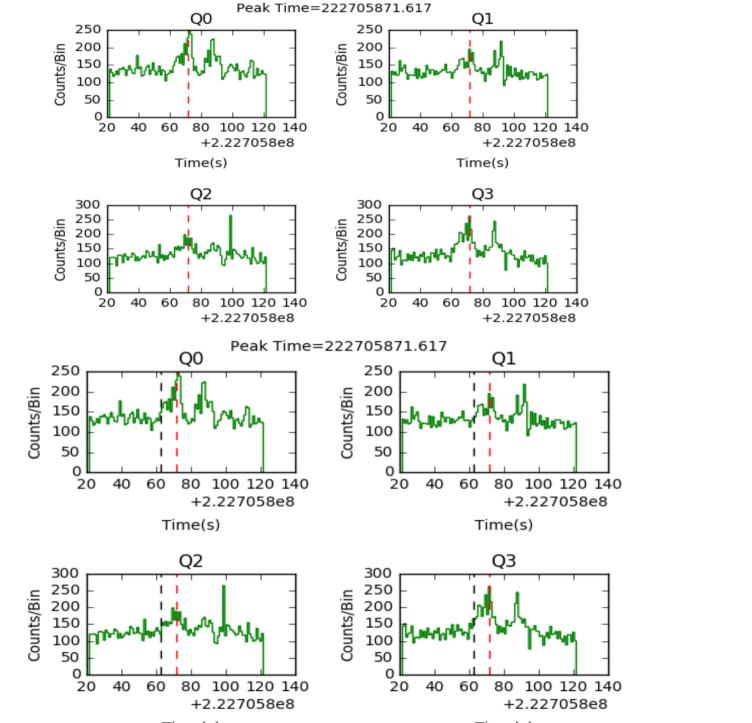
### GRB NAME= GRB170105A orbit=948\_06884 Astrosat\_time=221292847.0 Detected Peak Time=221292847.241



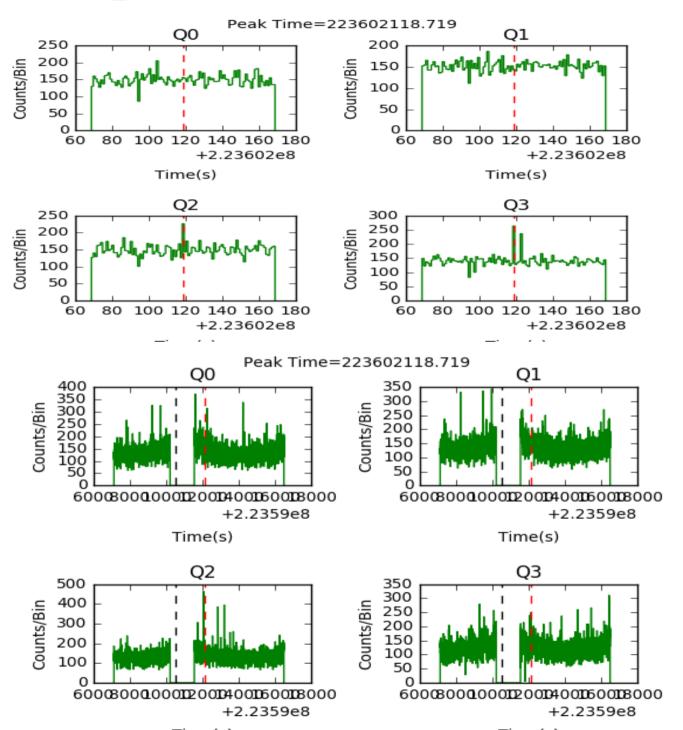
#### GRB NAME= GRB170115743 orbit=972\_07133 Astrosat\_time=222705862.414 Detected Peak Time=222705869.617



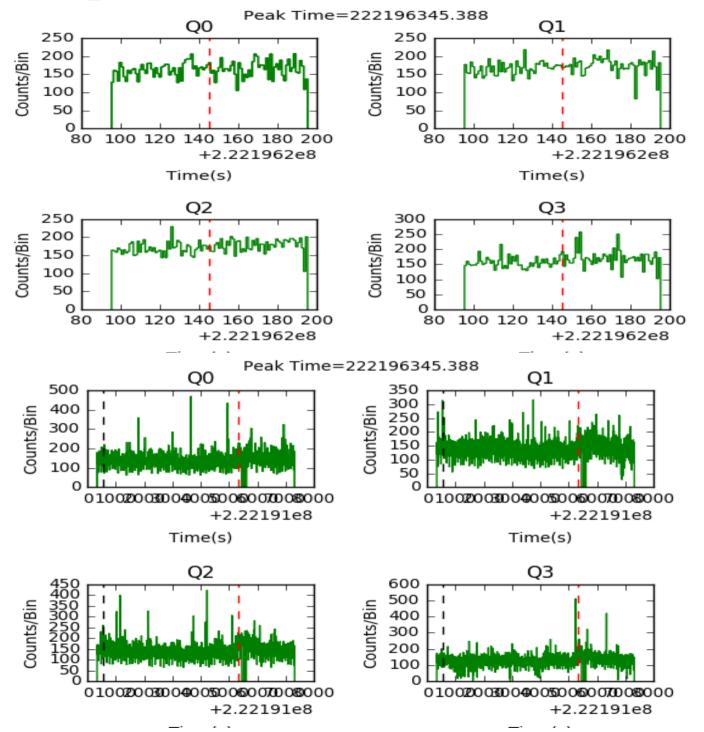
#### GRB NAME= GRB170115743 orbit=972\_07133 Astrosat time=222705862.414 Detected Peak Time=222705871.617



### GRB NAME= GRB170131969 orbit=996\_07281 Astrosat\_time=223600499.358 Detected Peak Time=223602118.719



### GRB NAME=GRB170115662 orbit=964\_07039 Astrosat\_time=222191556.933 Detected Peak Time=222196345.388



# Thank You!