fit gaussian to lc

imshow the data

# 0. prereduction data

# 1. Extract lc

plot lightcone

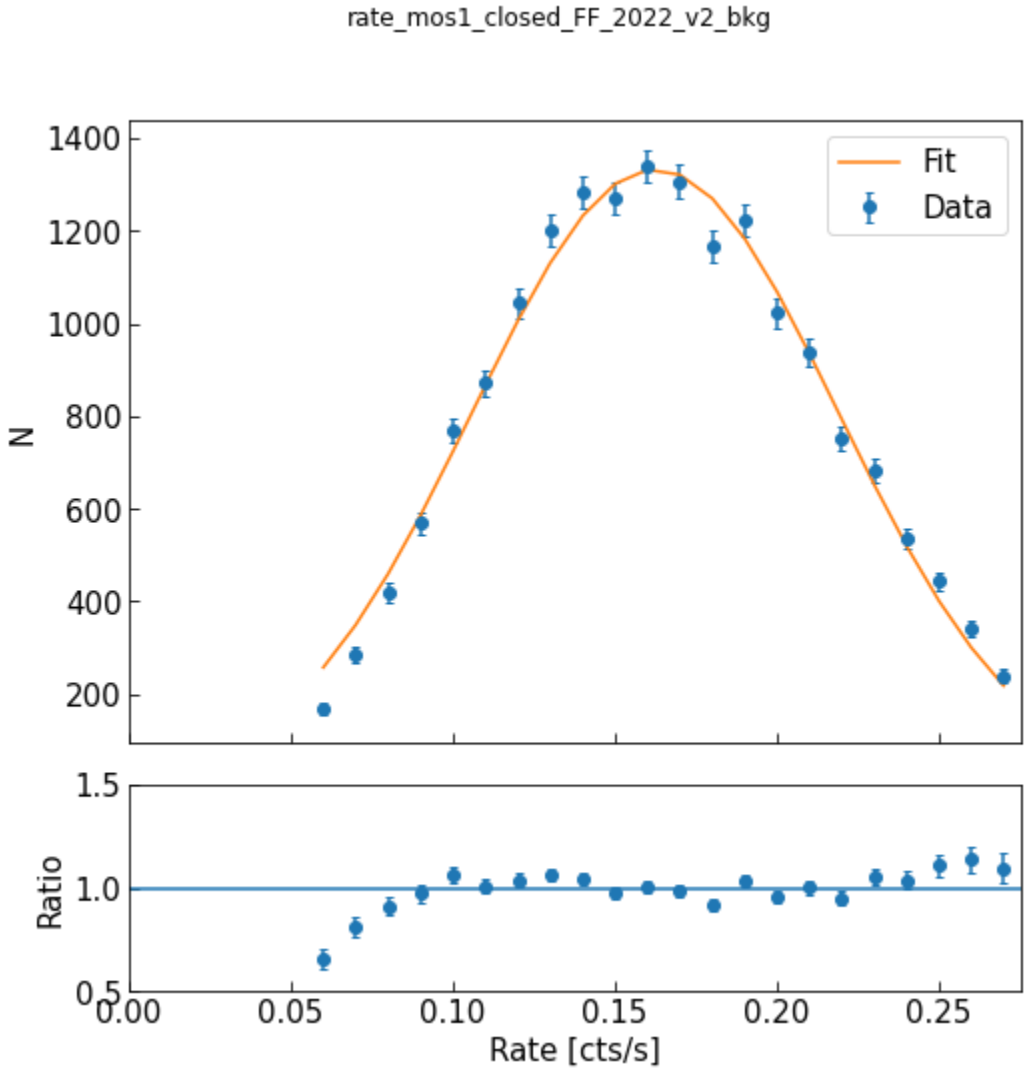
fit lightcone with gaussian to determine the most stable ctr upper limit

filter data based on gaussian fit and visual inspect

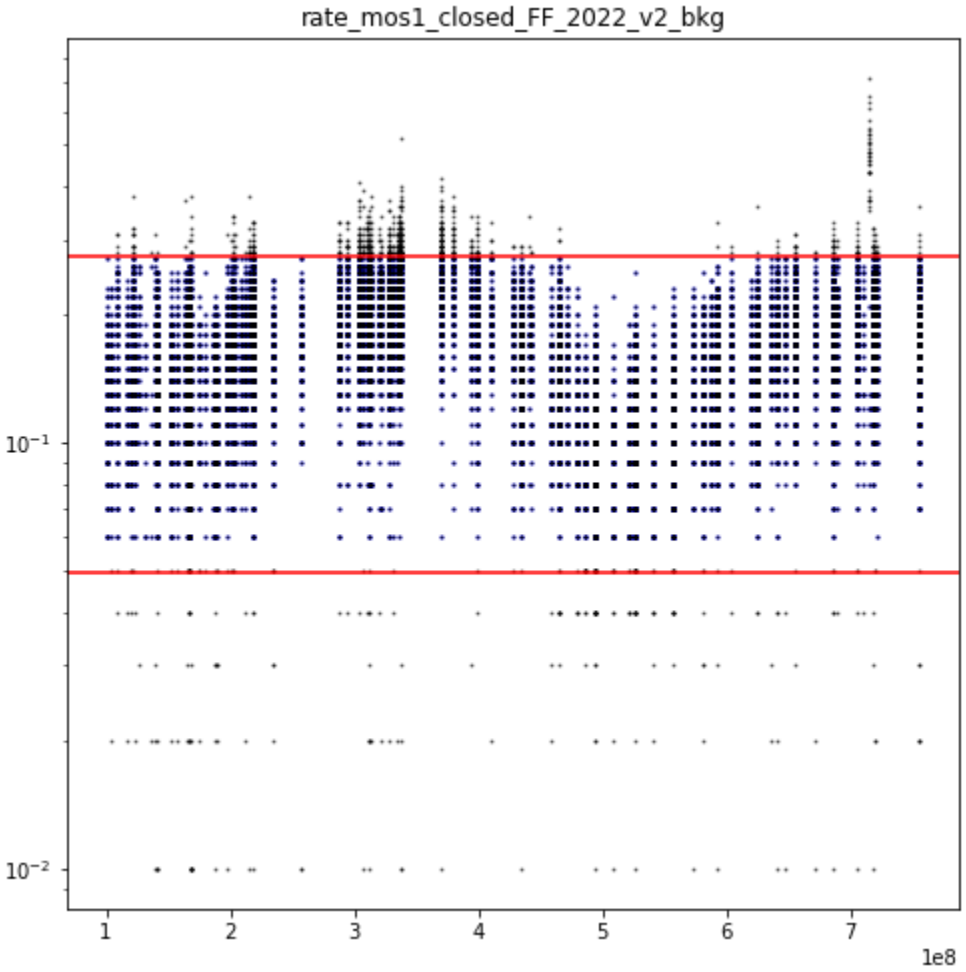
# 2. Extract image

manage pn image (substract oot data)

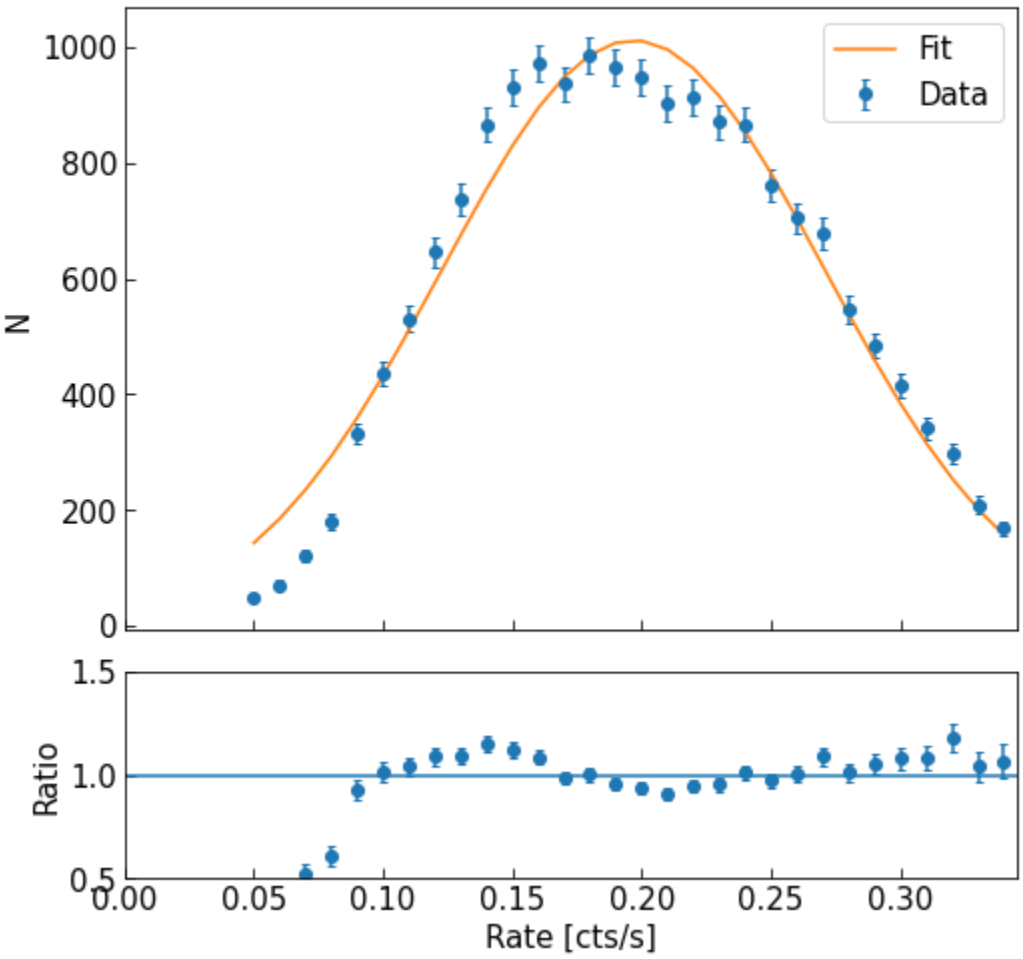
filter bkg events by gaussian filtering gti



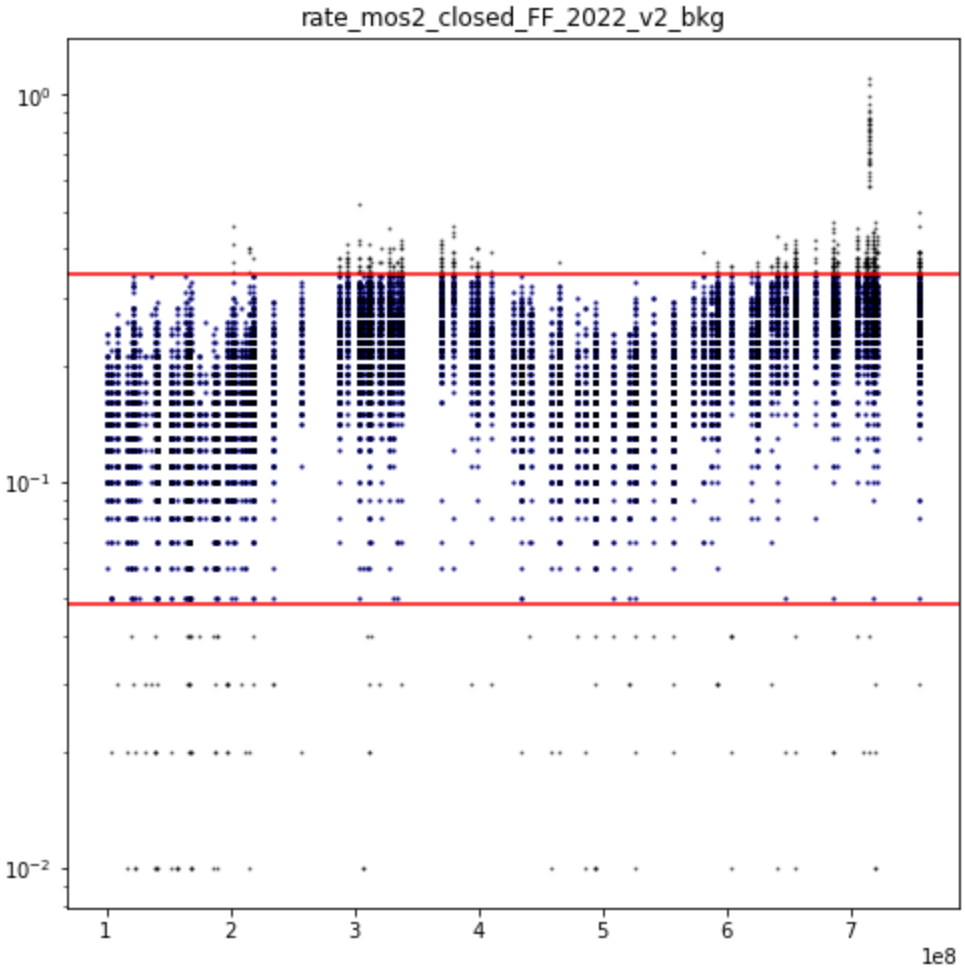

<Figure size 432x288 with 0 Axes>



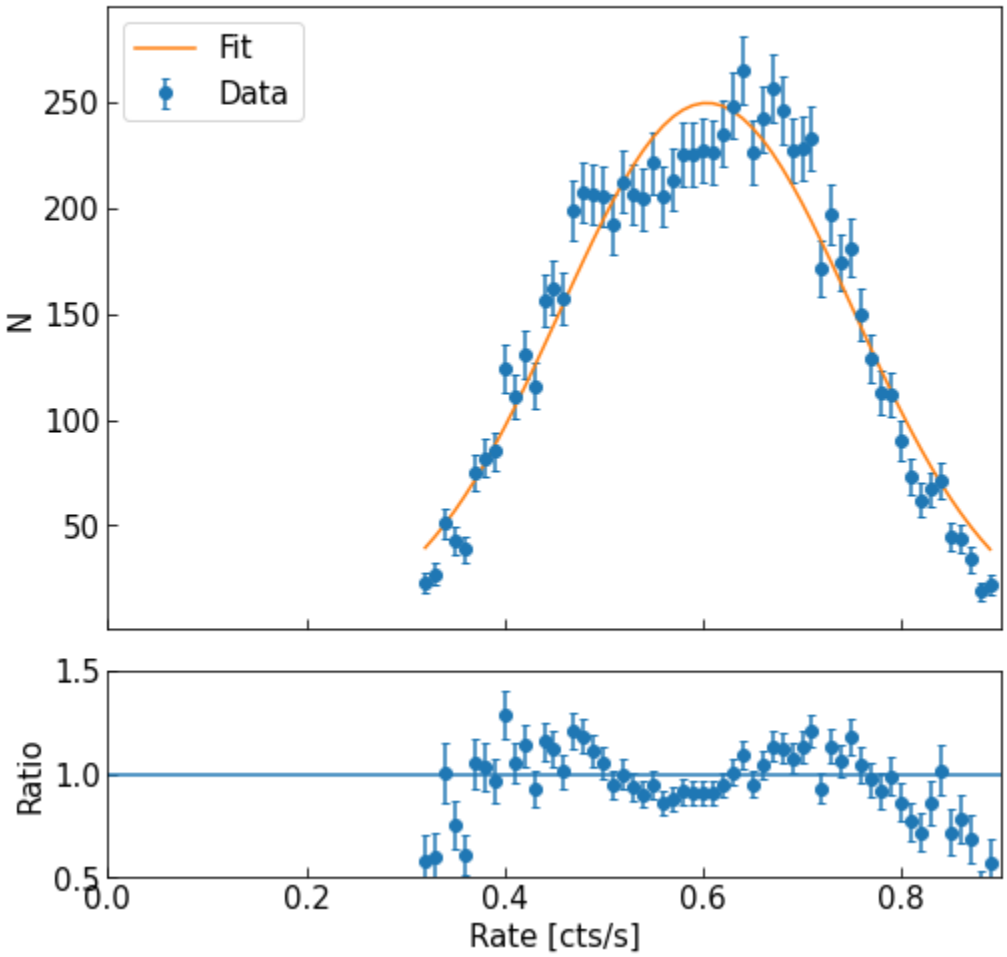

rate_mos2_closed_FF_2022_v2_bkg



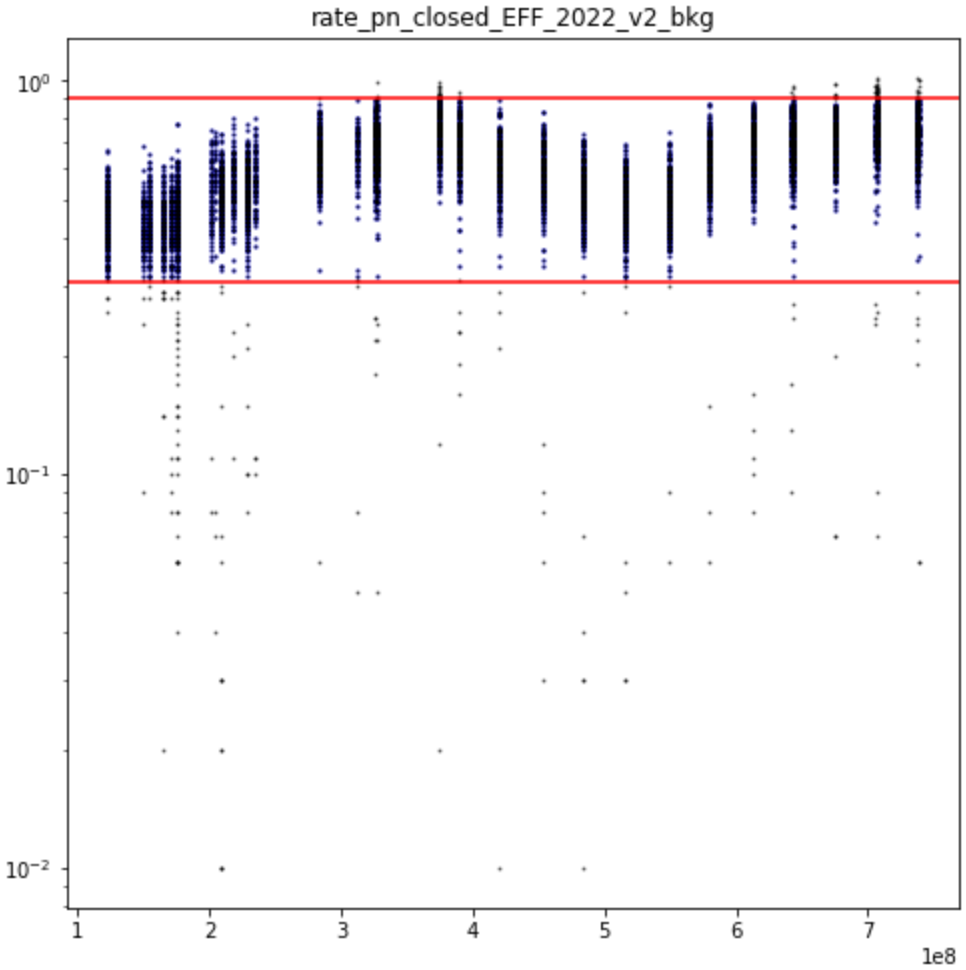
<Figure size 432x288 with 0 Axes>

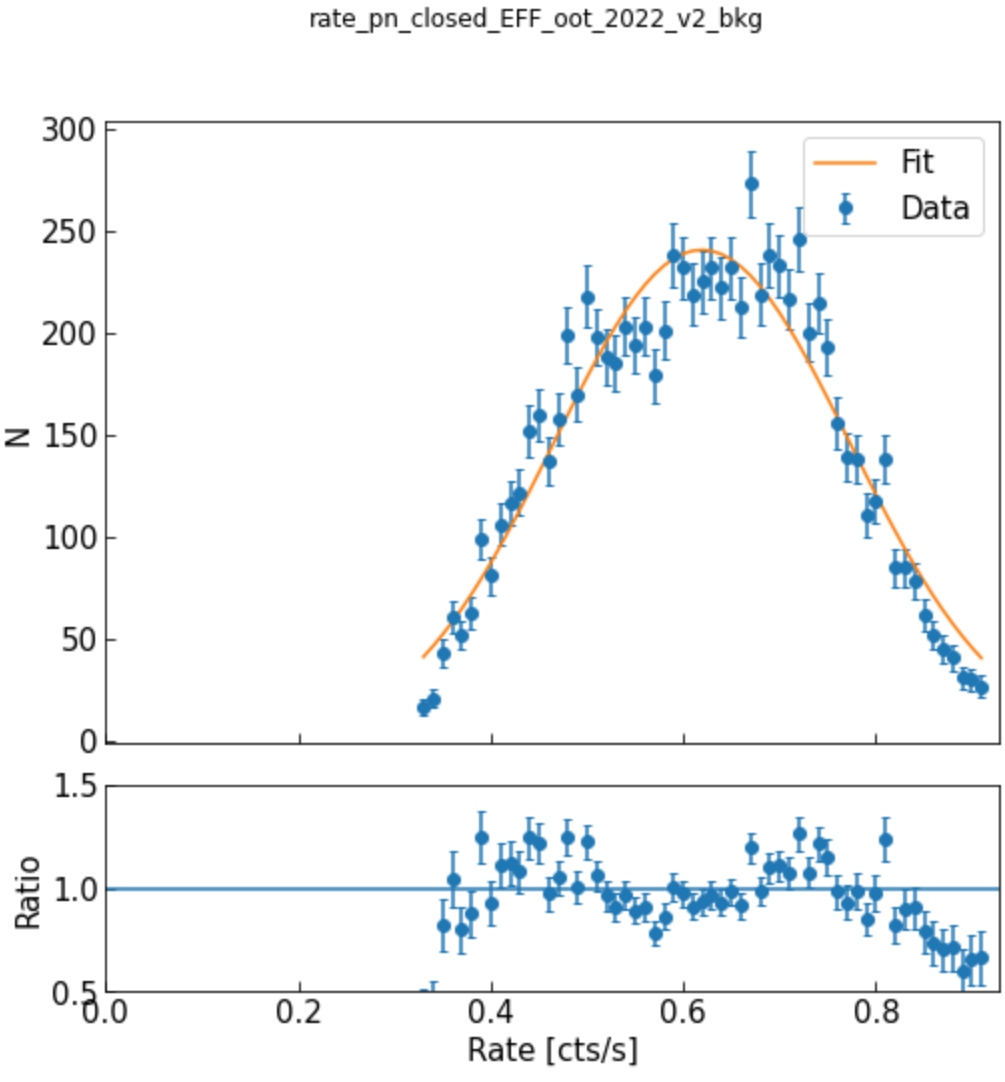


rate_pn_closed_EFF_2022_v2_bkg

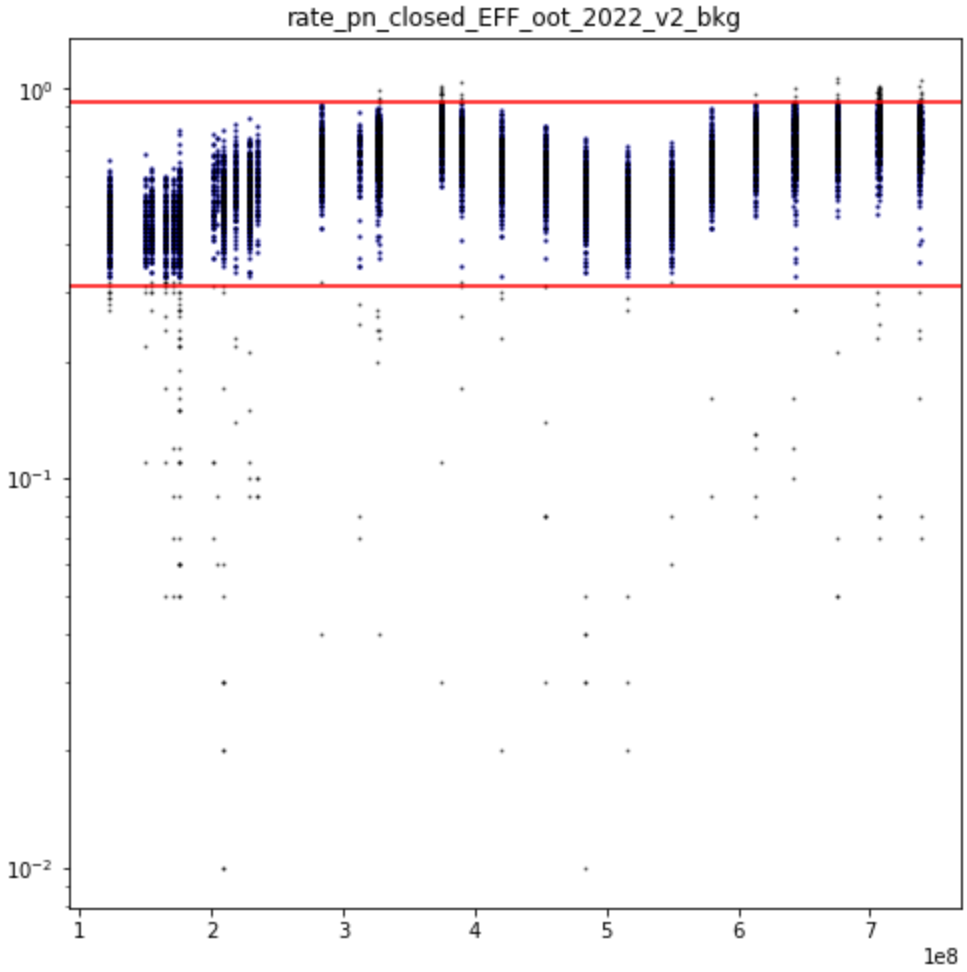



<Figure size 432x288 with 0 Axes>


rate_pn_closed_EFF_2022_v2_bkg
$10^0$
$10^{-1}$
$10^{-2}$
1
2
3
4
5
6
7
1e8


rate_pn_closed_EFF_oot_2022_v2_bkg
Fit
Data
N
300
250
200
150
100
50
0
Ratio
1.5
1.0
0.5
0.0
0.2
0.4
0.6
0.8
Rate [cts/s]

<Figure size 432x288 with 0 Axes>




check the images

# 3. emosaic image and bkg images, and substract image with bkg

remember to generate bkg images for new energy bands in xmm_bkg_extraction.ipynb!

merge btw instruments

emosaic all images

subtract bkg

only merge mos1, mos2

# 5. wavdetect xmm

create fov image

perform wavdetect

perform emldetect

run srcflux

1. define bkg regions

combine regions from fits files in reg file and check

run srcflux !srcflux can't run XMM dataset!

use wavdetect to briefly estimate detection limit of point sources

exclude the src reg list via histogram above

create suzaku point source regions based on this (run locally)