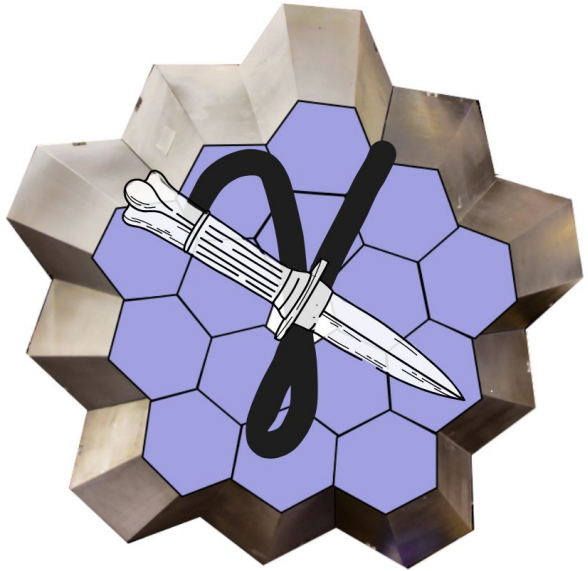
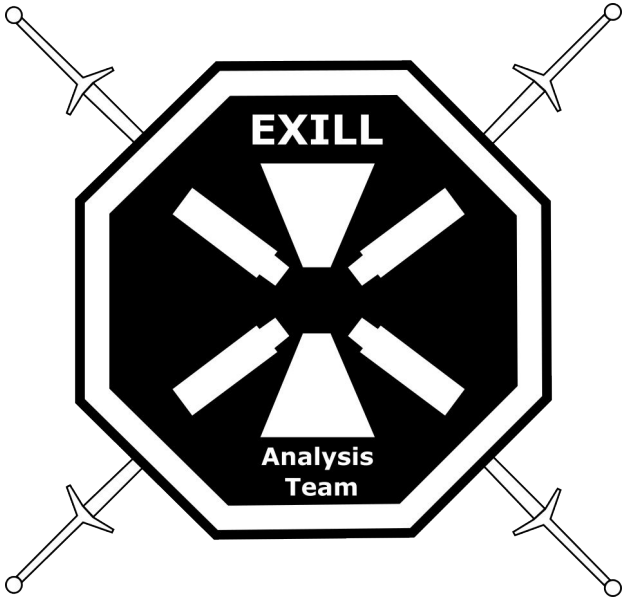
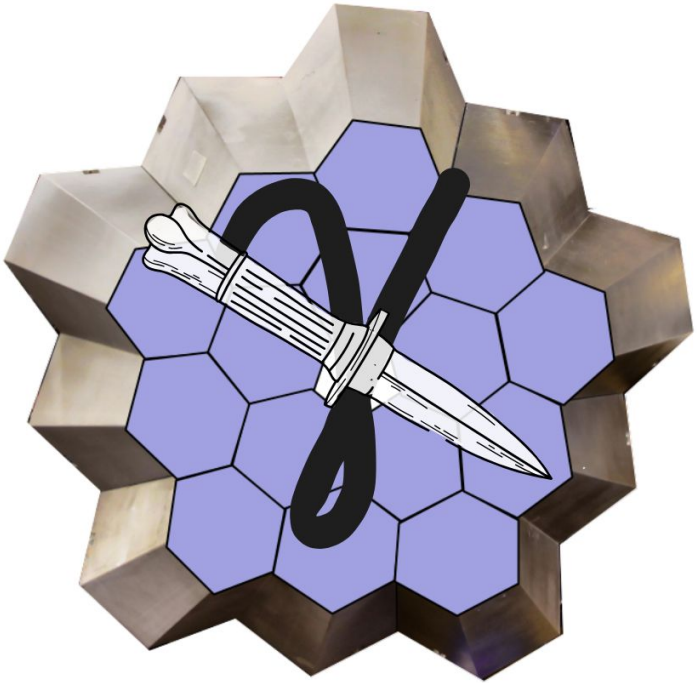
EURO-LABS Advanced Training School on collaborative software development practices



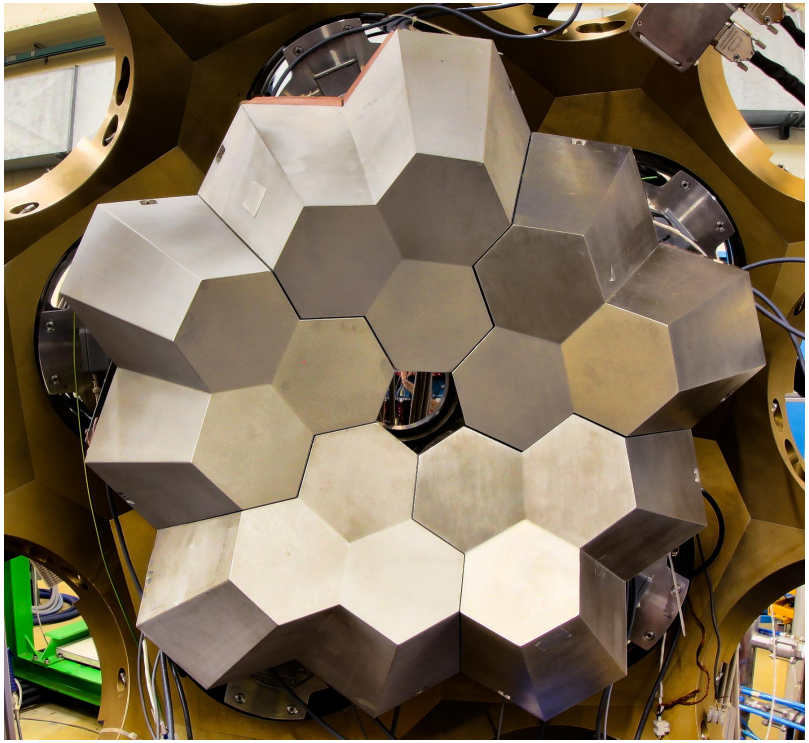
x



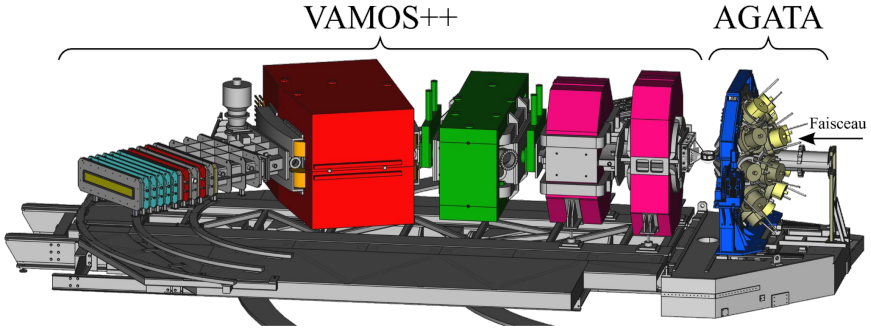
AGATA data



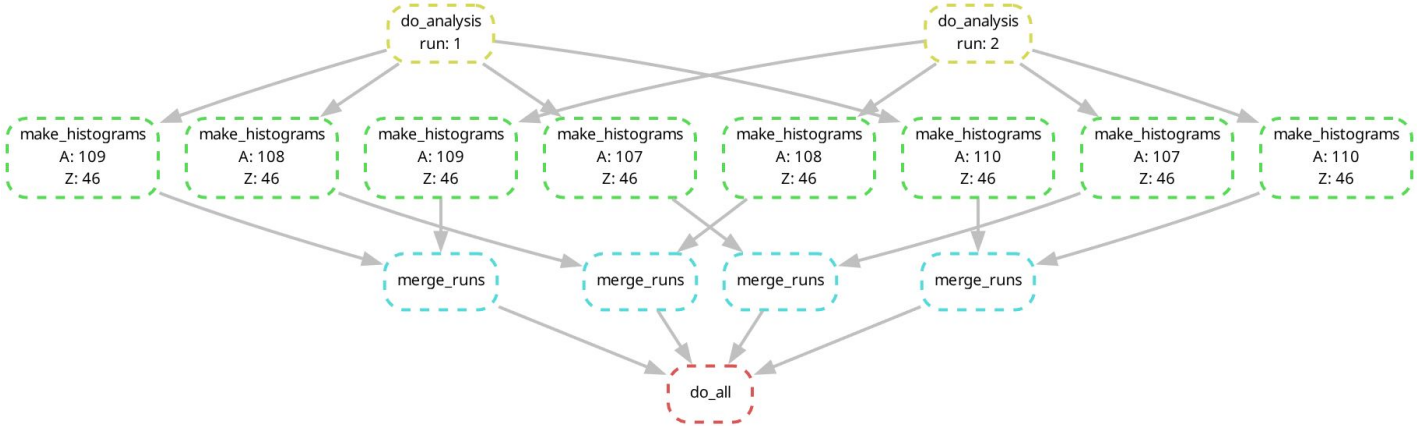
AGATA

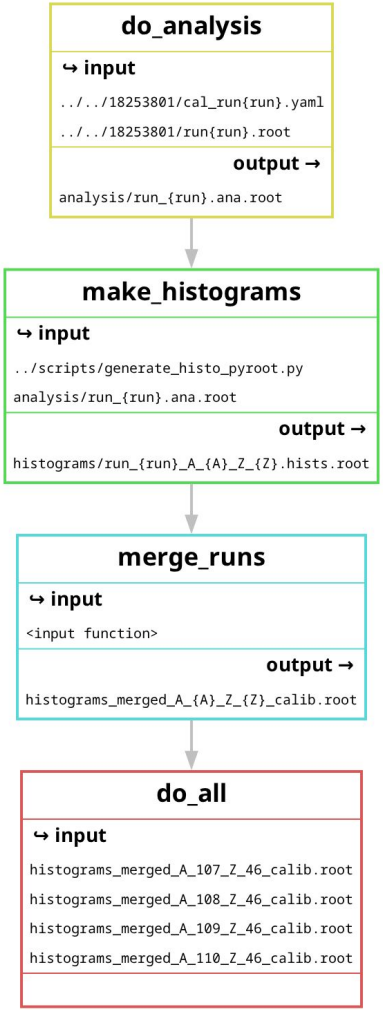


_ measure of gamma-rays in coincidence with measurement with VAMOS, selection on A and Z



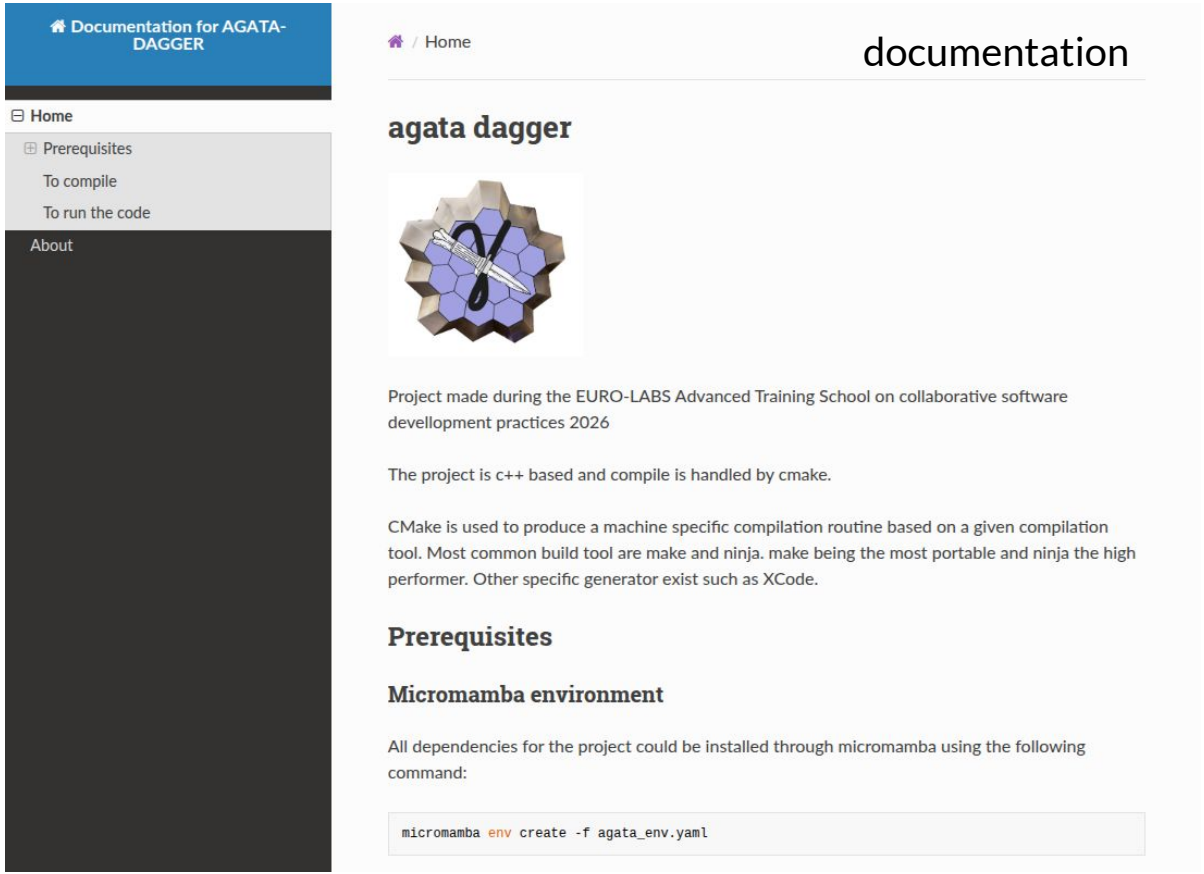
Workflow of the AGATA group





snakemake

Sharing with the EXILL group

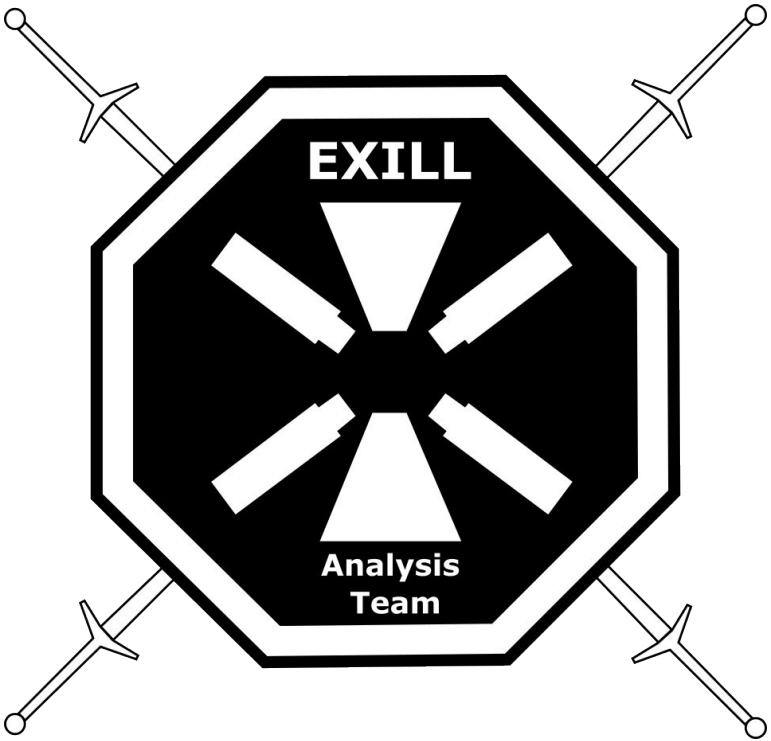


documentation

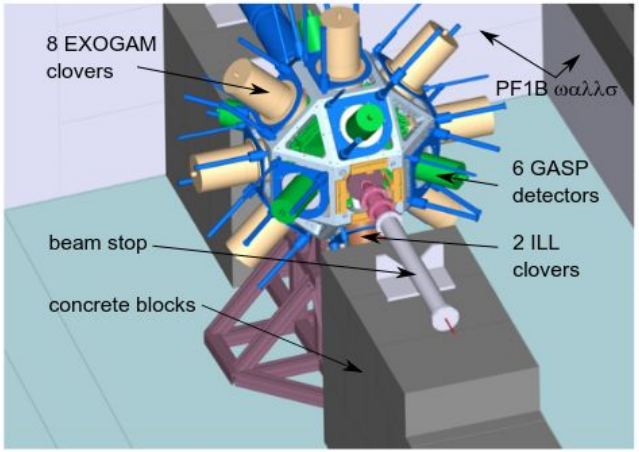
```yaml
author: agata-dagger team
date: '2026-02-05'
name: Fragment Selection
parameters:
  A: 107
  Width: 0.1
  Z: 46
```

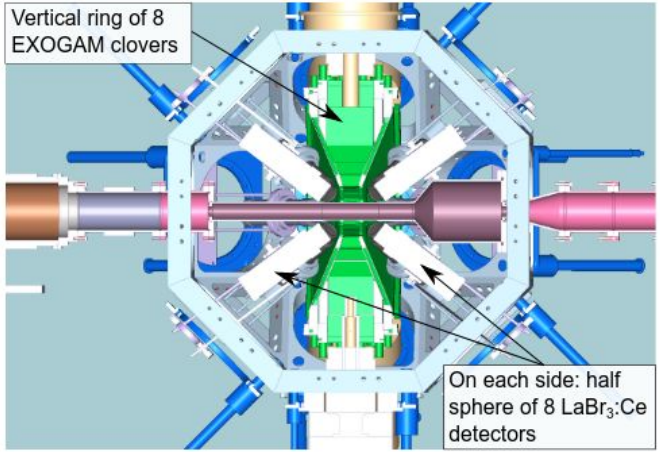
metadata for each histogram

EXILL data

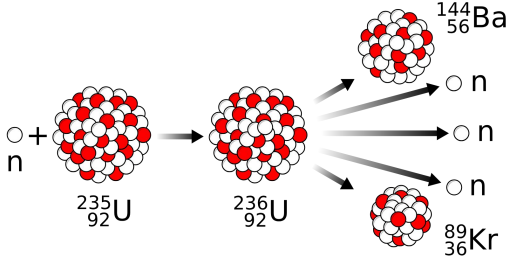


EXILL





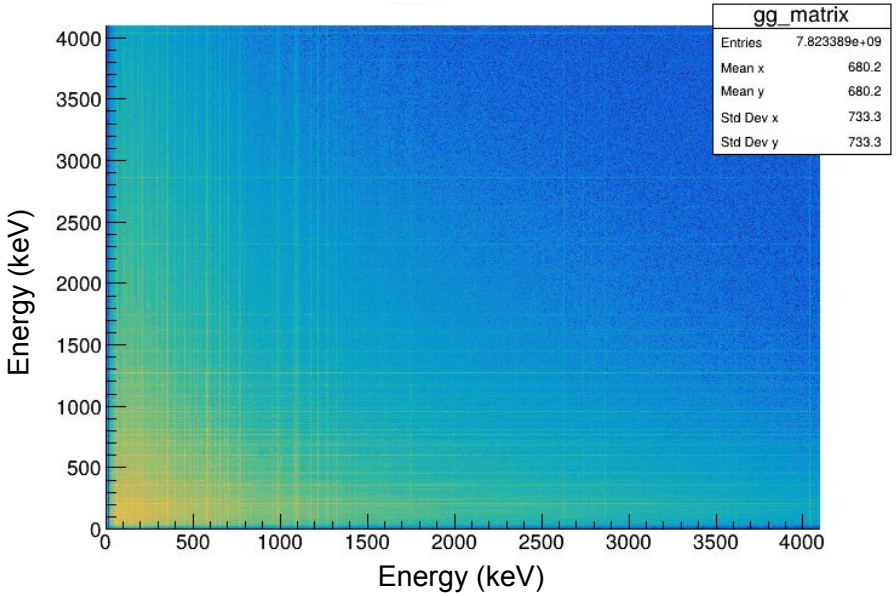
- Measure gamma rays in coincidence
- High statistics, multiplicity data



https://doi.org/10.1088/1748-0221/12/11/P11003

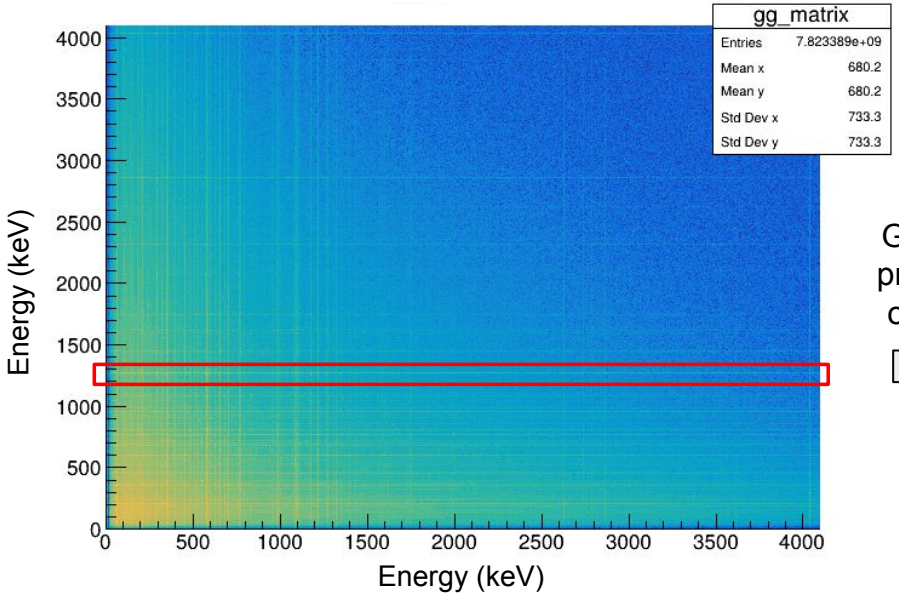
EXILL

Gating on the coincidence matrix

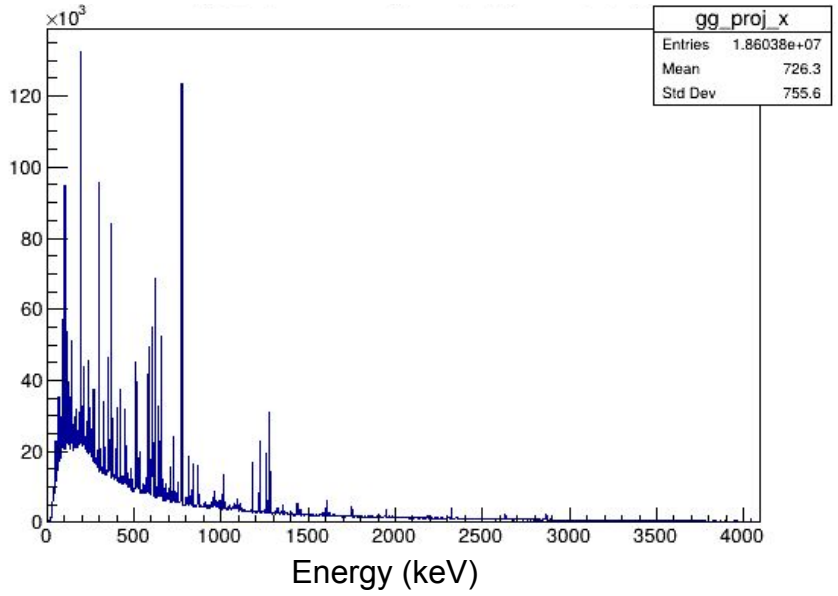


EXILL

Gating on the coincidence matrix

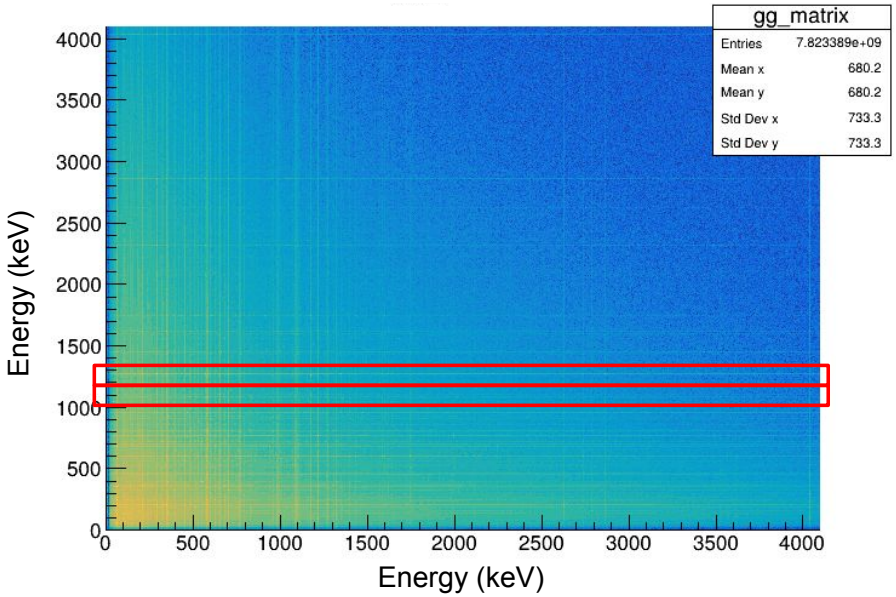


Gate and project on one axis

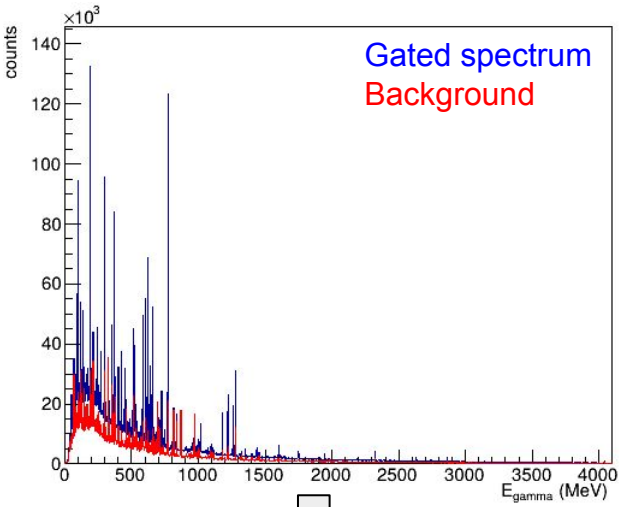


EXILL

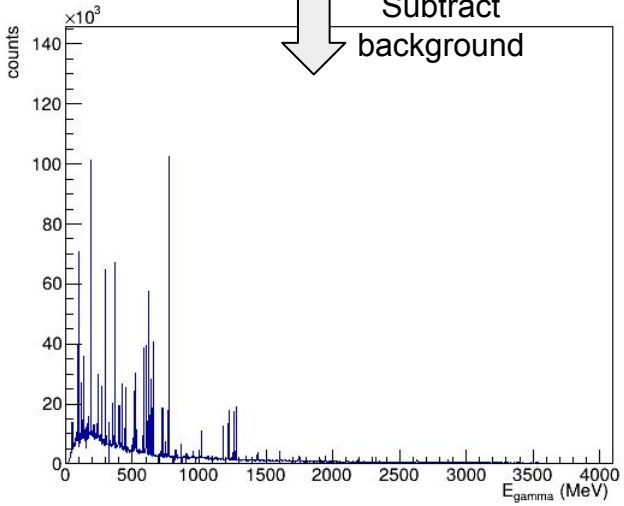
Gating on the coincidence matrix
and removing background



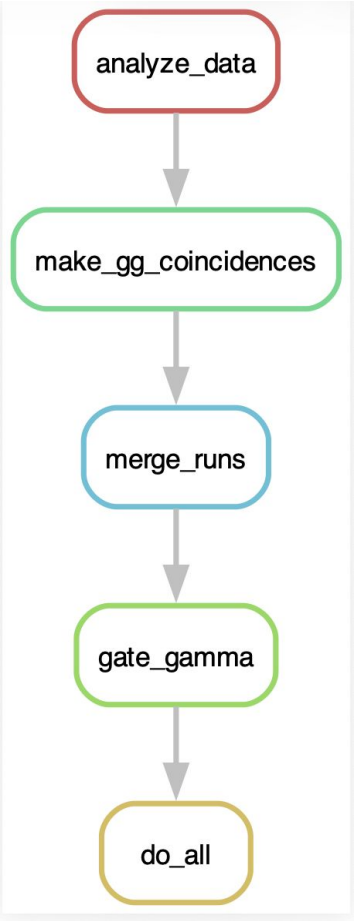
Gate and project on one axis



Subtract background



~~~WORK-FLOW~~~~



Produces the Trees of Gamma Energy Data from the input data

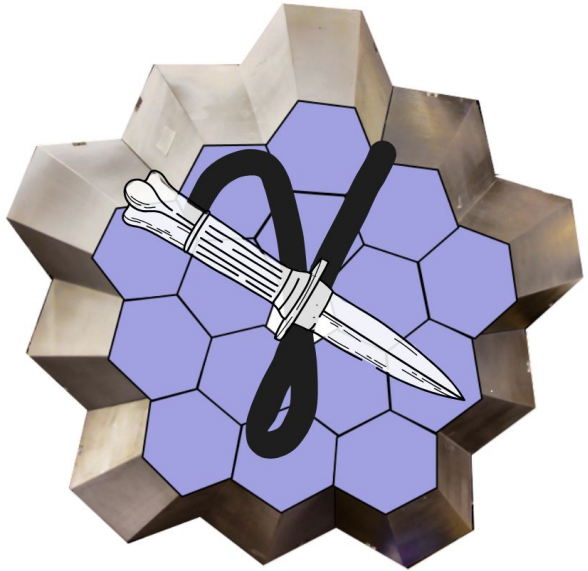
Produces the gamma-gamma coincidence matrices for each run

Merge the gamma-gamma coincidence matrices

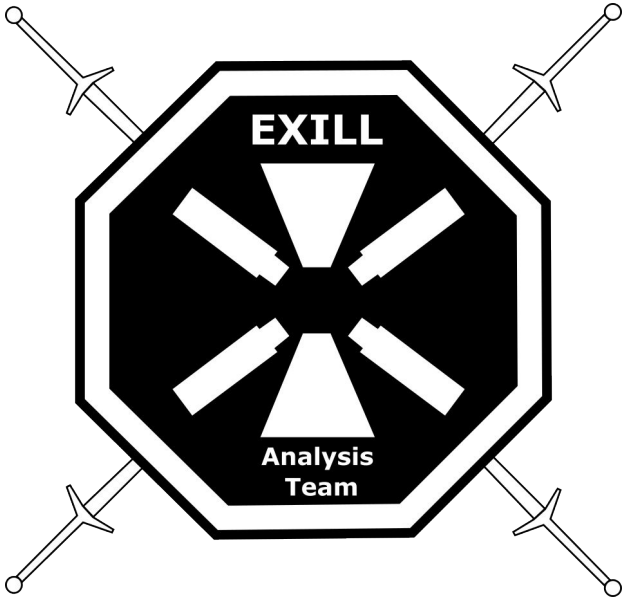
Gate at particular Gamma Peak with anticoincidence from the background and produce output and the Metadata file

Gates everytime and shows the output and stores the Metadata file

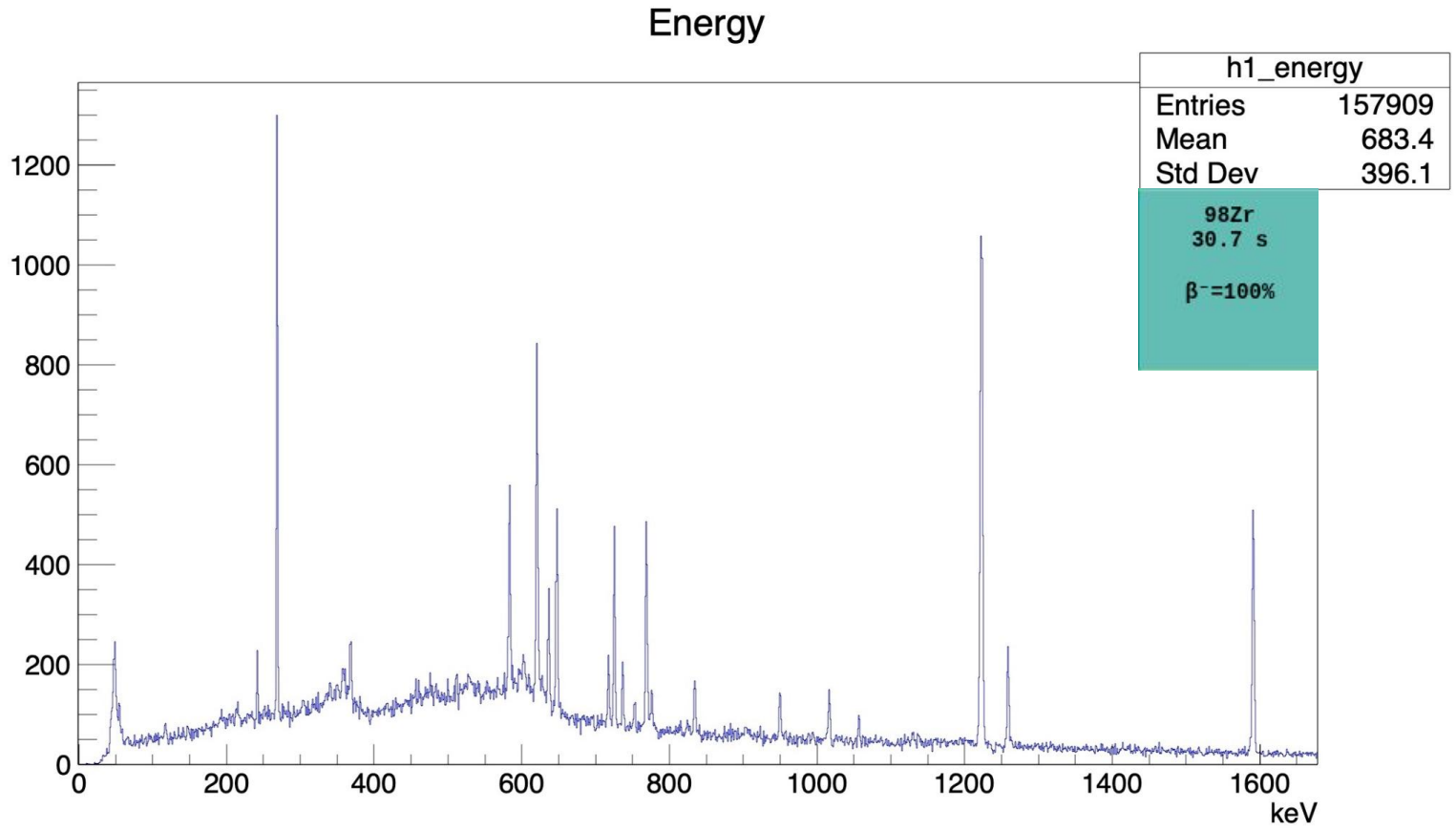
Study of ^{98}Zr and ^{90}Br with AGATA x EXILL



x

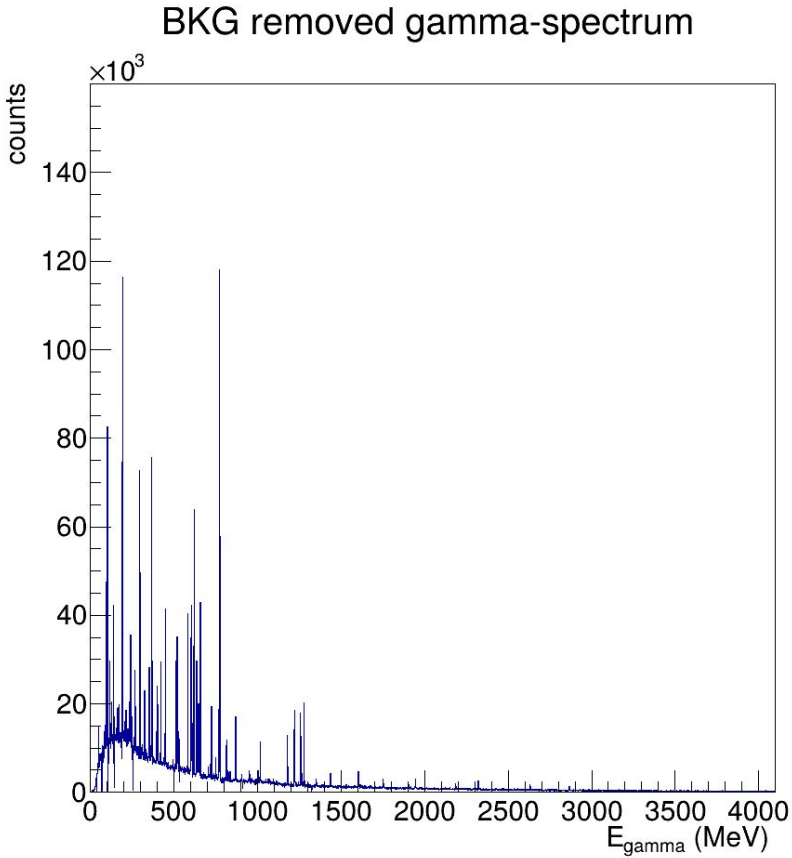


AGATA Energy histogram with selection on ^{98}Zr

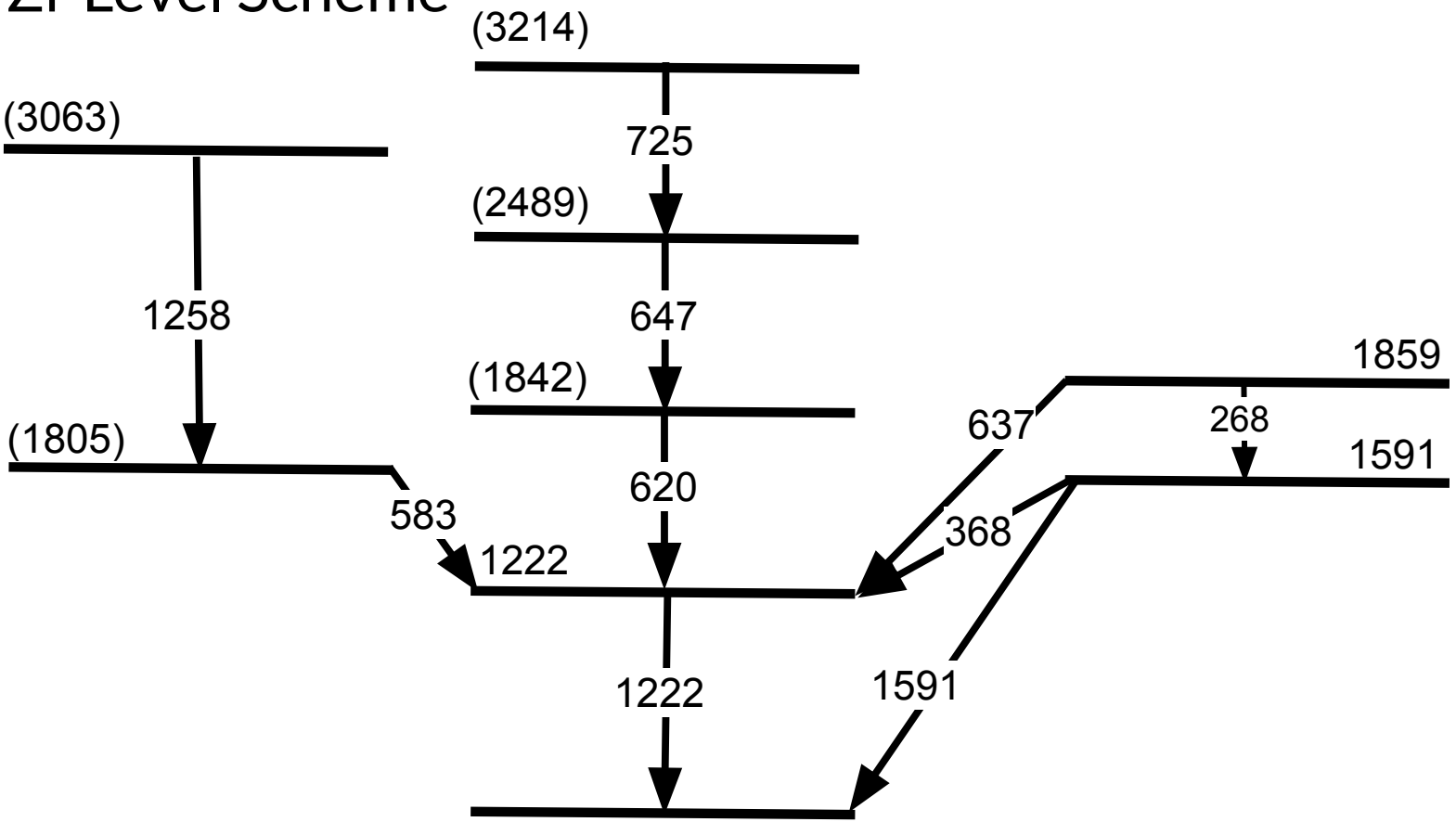


EXILL gating on AGATA peaks for ^{98}Zr

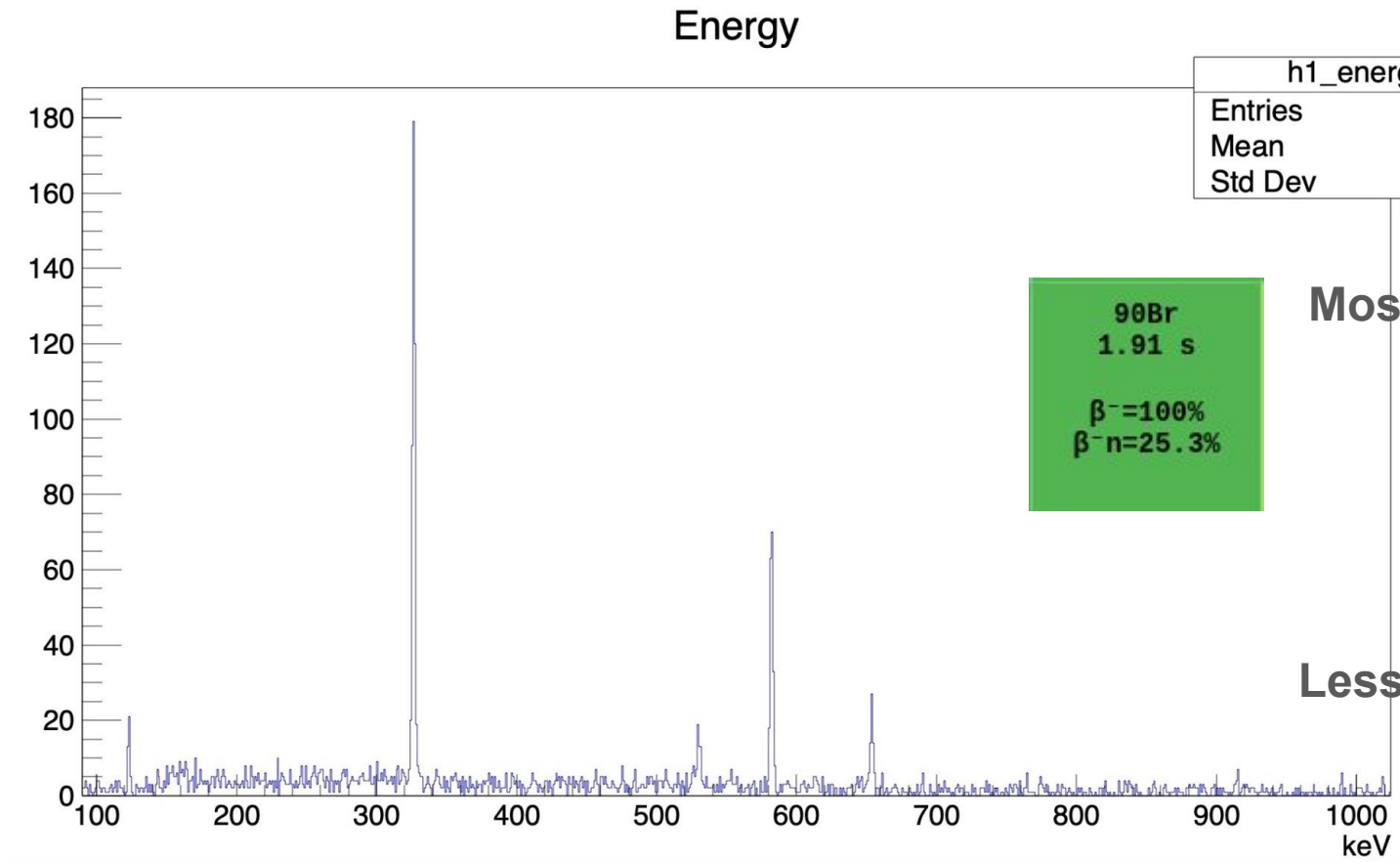
Gate in **1222 keV** peak with **10 keV of width** (background removed)



^{98}Zr Level Scheme



AGATA Energy histogram with selection on ^{90}Br



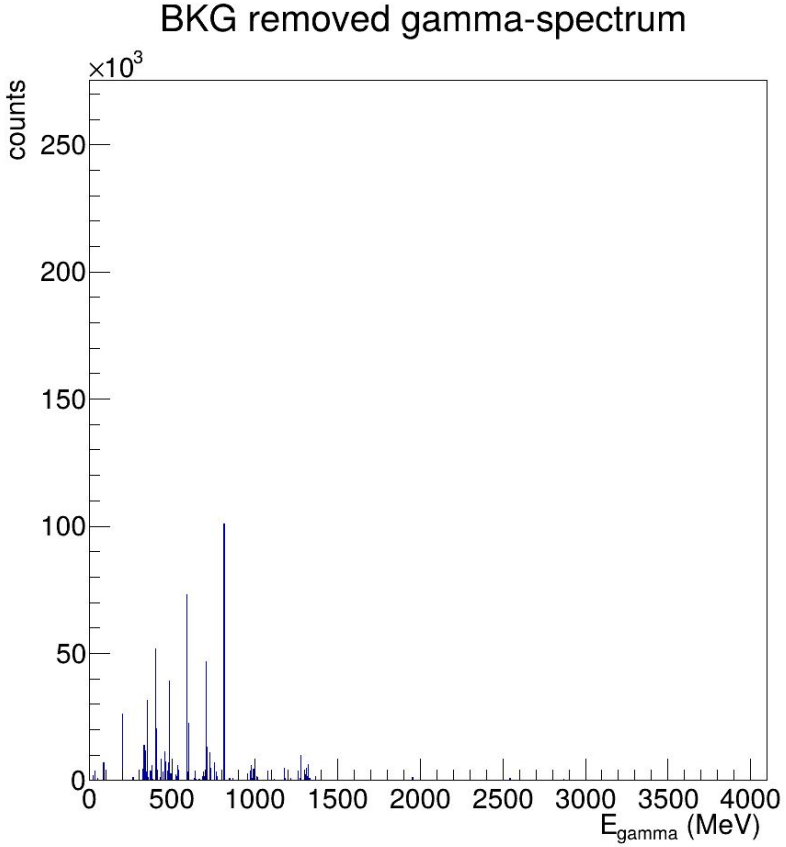
Most Intense

Less Intense

Gamma_E(keV)
326
582
653
529
123
55

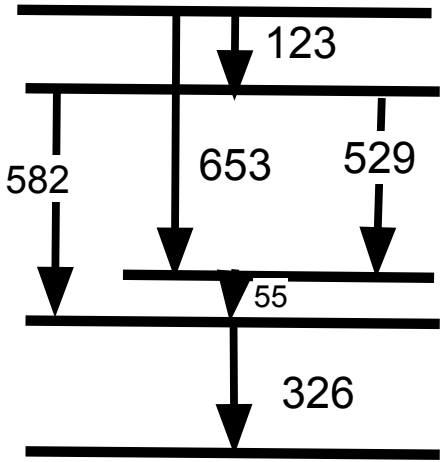
EXILL gating on AGATA peaks for ^{90}Br

Gate in **653 keV** peak with **10 keV of width** (background removed)



^{90}Br Level Scheme

55 transition very weak



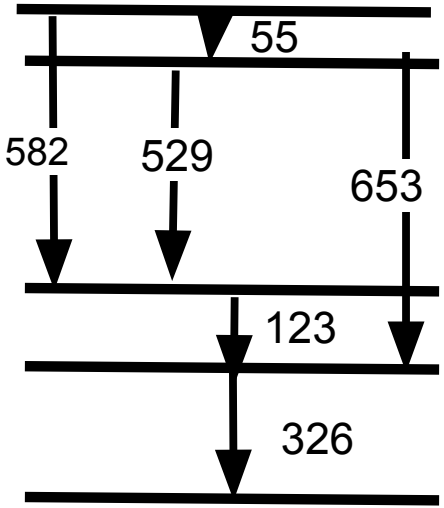
Gating ↓

Gamma (keV)	55	123	326	529	582	653
55						
123						
326						
529						
582						
653						

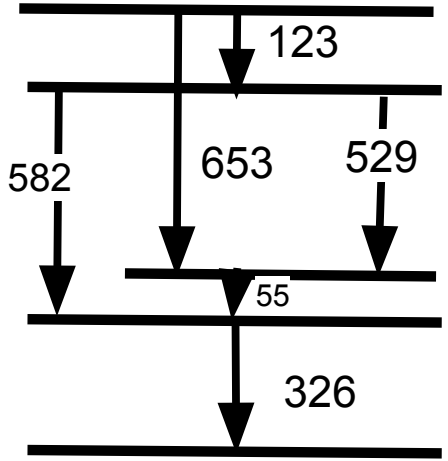
No Maybe? Yes

^{90}Br Level Scheme

Missing something 582
second most intense

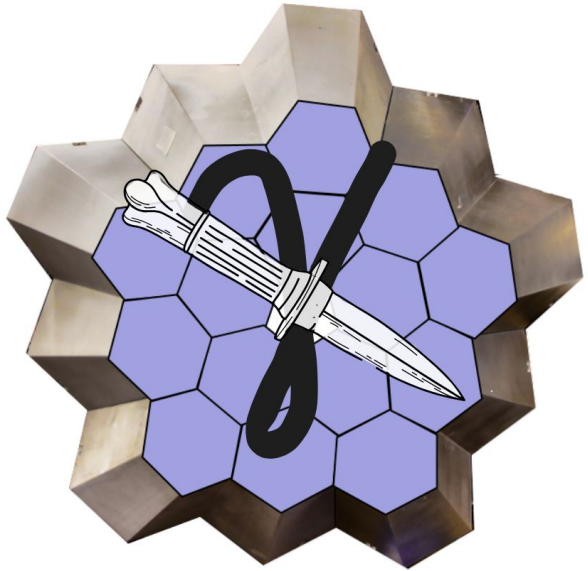


55 transition very weak

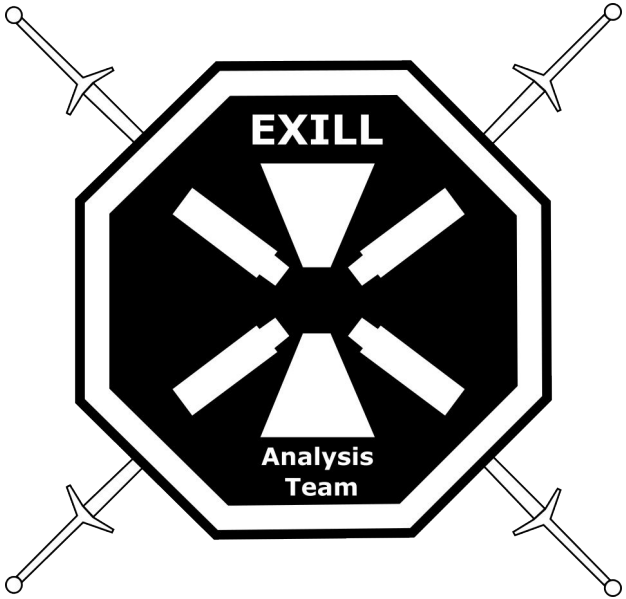
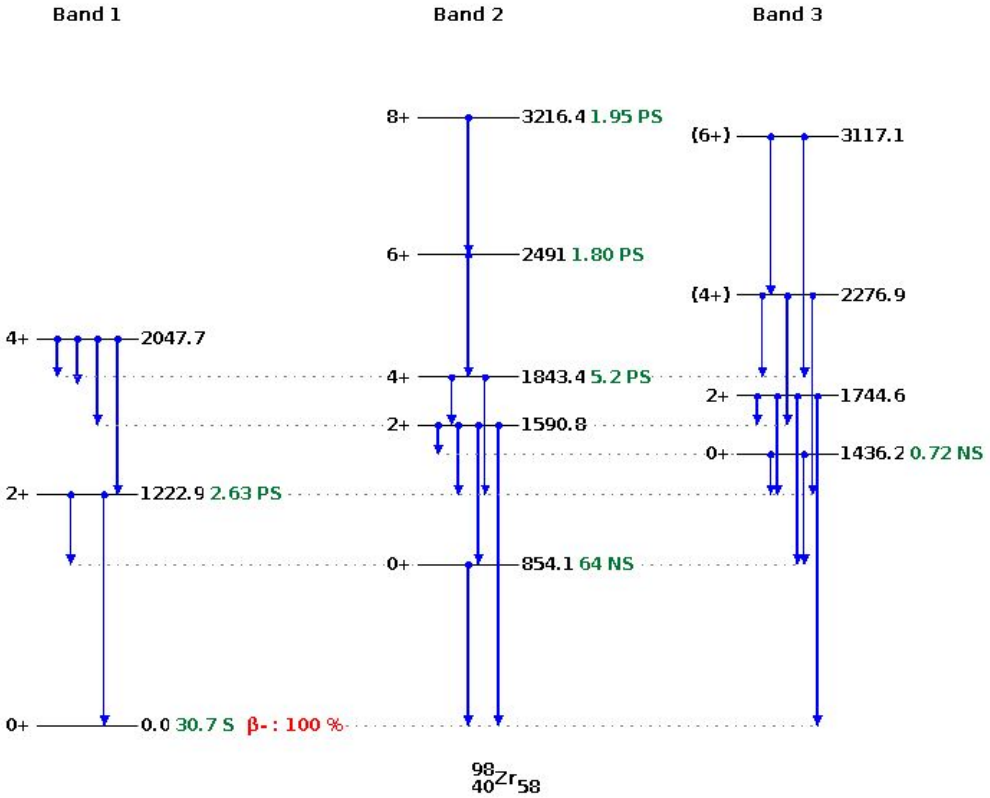


Thank you for your attention

Backup slides



x



^{98}Zr Level Scheme NNDC