AGATA performance Team meeting - 2021

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Short reminder of what the Performance Team do

We try to keep track of the final results of

- Detector performance
- Performance of electronics/DAQ
- PSA
- γ-ray tracking
- Analysis methods

An example of this

Performance of the Advanced GAmma Tracking Array at GANIL, NIM A Volume 955, 1 March 2020, 163297

1. Introduction
2. Experimental setup and data taking
3. Data processing
4. Crystal performance
5. Performance of the AGATA array with the Orsay Forward Tracking
6. Position resolution of the PSA
7. Angular correlations in AGATA
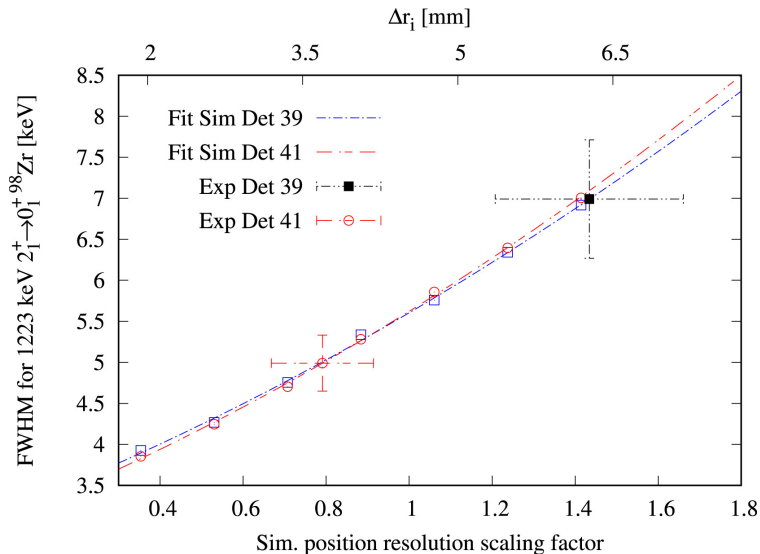8. Conclusions and perspective

"4. Crystal Performance"
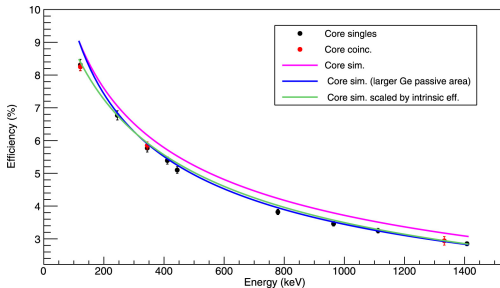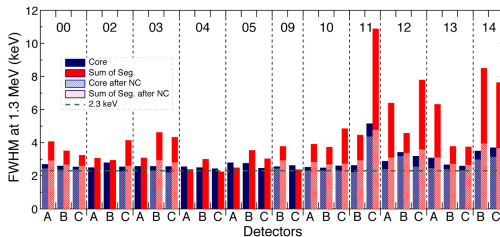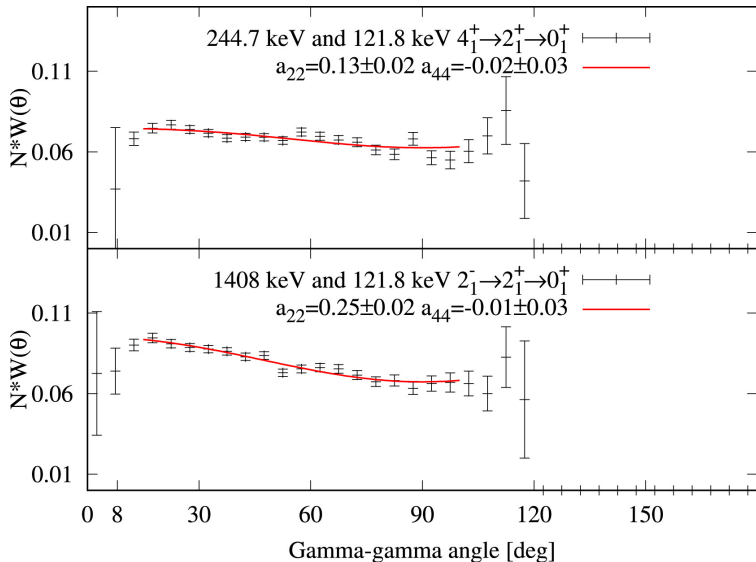
"5. Performance of the AGATA array with the Orsay Forward Tracking"
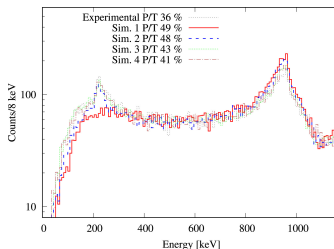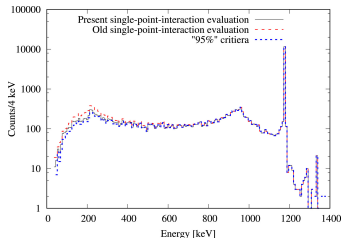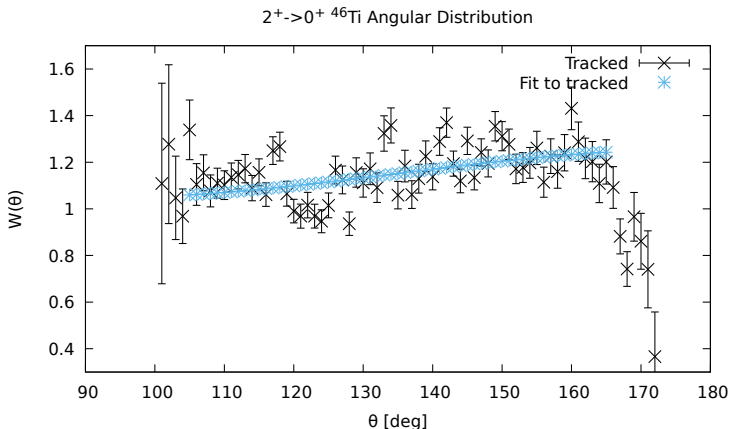
"6. Position resolution of the PSA"

"7. Angular correlations in AGATA"

And an example of what did not make it into the publication

Angular distribution with AGATA

Today's program

- 15:50 General introduction 15m Speaker: Joa Ljungvall (IJCLab)
- 16:05 Detectors status during the source runs 2020 25m Speaker: Rosa Perez (LNL, Italy)
- 16:30 Performance of GRETINA 30m Speaker: Dirk Weisshaar (NSCL, USA)
- 17:00 Angular distribution measurement: the example of 92Mo measured by GALILEO array 15m Speaker: Guanxin Zhang
- 17:15 Imaging with source data 15m Speaker: Jérémie Dudouet (IP2I, France)
- 17:30 On self calibration of tracking arrays 15m Speaker: Stefanos Paschalis (University of York, UK)

16:05 Detectors status during the source runs 2020 25m Speaker: Rosa Perez (LNL, Italy)

The minimum requirement for good performance is good detectors

- We regularly do source measurements to estimate the performance of the crystals. Rosa will present the results from the week of source measurements we did in autumn 2020.

16:30 Performance of GRETINA 30m Speaker: Dirk Weisshaar (NSCL, USA)

Broadening our perspective

- Dirk will give an overview of how γ-ray tracking is working on the other side of the Atlantic.

17:00 Angular distribution measurement: the example of ^{92}Mo measured by GALILEO array 15m Speaker: Guanxin Zhang

As an example of what we should do with AGATA

- Guanxin will present angular distribution measurements performed with the GALILEO array.

17:15 Imaging with source data 15m Speaker: Jérémie Dudouet (IP2I, France)

Good imaging requires good PSA and γ-ray tracking

- During the source run in 2020 we took data with multiple sources with the idea to "find" them using tracking and this way determine the performance. Jérémie will give an update on this work.

17:30 On self calibration of tracking arrays 15m Speaker: Stefanos Paschalis (University of York, UK)

Use γ-ray tracking backwards. . .

- When the detectors work next step is PSA. For this we need the basis. What if γ-ray tracking can give this? Data taken in autumn 2020 as well as before will be used to test this. Stefanos will tell us how at the status.