Contribution ID: **45** Type: **Contributed Talk**

Results from the analysis of digitally acquired experimental data collected with the AGATA symmetric prototype detector and its implications to the Advanced GAmma Tracking Array

Thursday 15 September 2005 10:30 (30 minutes)

High-precision g-ray spectroscopy is currently the most powerful tool that can be used to investigate the structure of a nucleus under extreme conditions. High Purity Germanium (HPGe) detectors with their excellent energy resolution and good timing resolution have been the main 'work horse'in this field.

The AGATA symmetrical segmented Canberra Eurisys (CE) prototype germanium crystal has been tested at the University of Liverpool. A highly collimated Cs-137 (662keV) beam was scanned across the detector in both singles and coincidence modes. The output pulse shapes from all 37 channels (one for each of the 36 segments + the centre contact) were digitised and stored for offline analysis. The analysis of the characteristics of the real and transient pulse shapes from the detector (Pulse Shape Analysis) gives us detailed information on its performance in relation to both the possibilities and limits of g-ray tracking with the proposed 180 crystal array. The results of this analysis are presented

Author: Mr DIMMOCK, Matthew (University of Liverpool)

Presenter: Mr DIMMOCK, Matthew (University of Liverpool)

Session Classification: P : Coffee and Poster Session

Track Classification: Applications in Nuclear Physics