**Title:** Characterization of new structures in octupole-deformed radium and thorium nuclei

**Spokespersons:**  J. F. Smith and D. Mengoni (University of the West of Scotland)

**Main objectives:** The purpose of the experiment was to populate new structures in octupole-deformed radium and thorium nuclei, which have recently been observed in an experiment with Gammasphere and HERCULES, in order to attempt to measure linear polarizations of new transitions and transitions linking new structures to the yrast octupole band.

**Statement on the run and AGATA:** The experiment was approved in the January 2011 PAC and was run from 16th to 22nd March 2011. There were four ATCs in place at the time of the experiment. AGATA ran well with no major problems for the period of the experiment. One minor problem was that one of the Narval nodes crashed several times, but this was quickly solved with the help of local support. There were no problems with the delivery of the 18O beam from the Legnaro tandem.

**Status of the analysis:** The analysis has been complicated by the large volume of data that was collected - in total 33 terabytes. The data have been read and compressed at Legnaro by Daniele Mengoni, but this process took several months (in part due to it not being possible to read the data while other experiments were acquiring data to the same RAID storage). Preliminary analysis has indicated some problems with background subtraction, as presented by the spokesman at the EGAN meeting in Padova in June.

**Any results:** The data are still being analysed and there are no results at present.

**Publications or talks:**

* J. F. Smith et al, EGAN Workshop, Padova, June 2011 (Oral presentation)
* J. F. Smith et al, Rutherford Centennial Conference, August 2011 (Contributed oral presentation).
* No publications planned at present.

**Any problems:**Manipulation and storage of the large amount of data collected is a problem which has slowed the analysis. There is clearly a problem with background subtraction in the data which is presently still not understood by the spokesman.

**Anything else:**

JFS (spokesman) will go to Legnaro in mid November 2011, to discuss the data analysis with experts, and hopefully to make progress with the analysis.

JFS

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