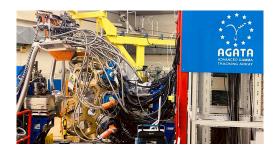
The 24th AGATA Week - ACC Meeting



ID de Contribution: 68 Type: Non spécifié

Analysis of EXP-017 and EXP-022: Challenges, Solutions, and Future Directions

vendredi 13 septembre 2024 12:30 (15 minutes)

This presentation explores results from two experiments, EXP_017 (23.015) and EXP_022 (22.096), focusing on high-spin states in 136,137 Nd and octupole deformation in uranium isotopes, respectively.

In EXP_017, the investigation centered on the decays out of highly deformed rotational bands in ¹³⁶Nd and ¹³⁷Nd. These bands challenge existing nuclear structure theories by persisting in high-energy regions where damping is typically expected. The experiment aimed to utilise the AGATA detector array coupled to the EUCLIDES ancillary device to perform high-statistics measurements, enabling the identification of low-lying states and the determination of spin and parity. Despite challenges with efficiency and background, preliminary results suggest future promise at running this type of experiment with AGATA.

EXP_022 aimed to study octupole deformation in 226 U and 228 U isotopes, which are predicted to exhibit "pear-shaped" structures. The experiment used the AGATA, PRISMA, and DANTE detector arrays to study these isotopes through multinucleon transfer reactions induced by a 129 Xe beam on a 232 Th target. Analysis of the experiment is ongoing and preliminary results are to be presented.

Auteur principal: SULLIVAN, Conor (University of Liverpool)

Orateur: SULLIVAN, Conor (University of Liverpool)

Classification de Session: ACC