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The AGATA γ -ray tracking array at the LNL TANDEM-ALPI-PIAVE facility

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The AGATA γ -ray tracking array represents the state-of-the-art of in-beam gamma-ray detection. Its capabilities rely on the high segmentation of its High Purity Germanium detectors to provide position sensitivity and, as a result, the ability to track gamma rays.

In this contribution, we will present an overview of the experiments performed during the first phase of AGATA's installation at the TANDEM-ALPI-PIAVE accelerator complex in the "Laboratori Nazionali di Legnaro" in Italy. The gamma-ray array was initially coupled to the PRISMA magnetic spectrometer, to study the spectroscopy of isotopes produced from multinucleon transfer and fission reactions.

Moreover, part of the experimental campaign was devoted to the study of Coulomb excitation experiments that saw the array coupled to silicon detectors (SPIDER and EUCLIDES).

A brief overview of the performance and recent achievements will be presented, with a future perspective of the spectrometer at Legnaro, also in view of the future delivery of radioactive beams provided by the SPES facility.

Author: BRUGNARA, Daniele (University of Padova - LNL INFN)
Orateur: BRUGNARA, Daniele (University of Padova - LNL INFN)
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