

# THE AGATA PHYSICS CAMPAIGN IN GANIL: RESULTS AND PERSPECTIVES

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The Advanced Gamma Tracking Array, AGATA, is a new-generation high-resolution  $\gamma$ -ray spectrometer solely built from Germanium detectors, based on the novel technique of  $\gamma$ -ray tracking.

AGATA opens up unique possibilities for a very rich physics program to be addressed, in particular on exotic nuclei where different nuclear degrees of freedom and new properties can be investigated. Since several years, the European  $\gamma$ -spectroscopy research community is involved in the construction of this powerful Ge-detector array which has started its physics campaign in 2010 in LNL (Italy) and continued in GSI (Germany), in configurations that included a fraction of the 180 detectors planned for the complete array. In 2014 AGATA was installed in GANIL (France), starting a new physics campaign, with an increased number of detectors.

The AGATA physics campaign in GANIL foresees several setups, with AGATA coupled to different spectrometers and ancillary detectors, to study nuclear structure properties of nuclei all across the nuclear chart, from light nuclei to very heavy species, using stable and radioactive beams.

After a brief description of the AGATA concept, some recent results will be presented together with the perspectives and opportunities for nuclear structure research in the forthcoming years with AGATA at GANIL.