



Status of the Super Separator Spectrometer at GANIL

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The in-depth study of the regions of Superheavy elements and the proton dripline around ¹⁰⁰Sn are two major challenges of today's Nuclear Physics. Performing detailed spectroscopic studies on these nuclei requires a significant improvement of our detection capabilities.

The Super-Separator-Spectrometer S³ is part of the SPIRAL2 facility at GANIL. Its aim is to use the high stable beam currents provided by the new LINAC to reach rare isotopes by fusion-evaporation. S³ is designed to provide the best rejection power along with a high transmission and a mass resolution of around 400. The use of high-acceptance superconducting multipoles provides a high transmission thanks to large gaps and higher-order optical corrections. These features, connected to a high-power target station, will provide access to nuclei with fusion-evaporation cross section down to the picobarn region and below.

This presentation will describe the technical capabilities of S³ and give a status of the construction of all systems and its commissioning plan.