



ID de Contribution: 1

Type: Non spécifié

## Spectroscopy with AGATA and GRIT at SPES using the $^{131}\text{mSn}$ beam

*jeudi 22 juin 2023 09:00 (20 minutes)*

We propose to investigate the  $^{132,131}\text{Sn}$  structure using the  $^{131}\text{Sn}(d,p)^{132}\text{Sn}$  reaction using the GRIT-AGATA setup at  $0^\circ$  degree and the SPES beam. As doubly magic nucleus,  $^{132}\text{Sn}$  is a real challenge for coulomb excitation and in particular to populate the non-yrast states. The  $(d,p)$  reaction is an ideal tool to populate selectively non-yrast state and highlighting new structures. The goals of the experiment are

- 1- perform the  $(d,p)$  reaction and probe the nuclear wave function content of Yrast and non-yrast state in the doubly magic  $^{132}\text{Sn}$  nucleu
- 2- combine this measurement to a lifetime measuremnt with the DSAM technique
- 3- determine the position of the  $^{131}\text{mSn}$  isomer using the  $(d,p)$  reaction
- 4- investigate the E2 and E3 collectivity of  $^{131}\text{Sn}$  using safe Coulomb excitation

This experiment is a high precision measurement in a key nucleus for nuclear structure studies.

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**Classification de Session:** SPES, LNL: Contributions –Physique avec GRIT, AGATA