

## Collective properties of nuclei studied at ALTO and CCB with PARIS demonstrator

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We will present recent activities within the collaboration between the IFJ Krakow and ALTO/IJC Lab Orsay. These include recent experiments performed using the PARIS array demonstrator detectors and the nu-Ball2 spectrometer. The results of work on the feeding of the isomer states of different deformations via GDR gamma decay studied with the nu-Ball2/PARIS at ALTO, Orsay will be presented [1]. Additionally the current status of data analysis of several experiments done using the nu-Ball2 array coupled to the full PARIS demonstrator (8 clusters) at ALTO in Orsay will be shown. A number of important topics will be addressed, such as deformation in the A=40 mass region and the links between  $^{80}\text{Sr}$  compound nucleus' shape and its residue's ( $^{76}\text{Kr}$ ) deformation studied with the GDR. Plans for 2024 concerning an experiment aiming to study the Pigmy Dipole Resonance in  $^{58,62}\text{Ni}$ , using inelastic proton scattering at CCB will be presented.

[1] M. Ciemała et al., Acta Phys. Pol. B Proc. Suppl., 16 (2023) 4-A3