

## Nuclear Structure Studies at ELI-NP

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### Abstract

The Extreme Light Infrastructure (ELI) Pan-European facility initiative represents a major step forward in quest for extreme electromagnetic fields. Extreme Light Infrastructure – Nuclear Physics (ELI-NP) is one of the three pillars of the ELI facility, that aims to use extreme electromagnetic fields for nuclear physics research. At ELI-NP, high-power lasers together with a very brilliant  $\gamma$  beam are the main research tools [1, 2]. Their targeted operational parameters will be described. The emerging experimental program of the facility in the field of nuclear physics will be reported and the main directions of the research envisioned will be presented. The different experimental set-ups, which are considered to operate at ELI-NP, will be discussed with an emphasis on the instrumentation which is designed for nuclear structure studies. The expected impact of ELI-NP to the future advance of the field will be summarized.

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### References

- [1] N.V. Zamfir, *EPJ Web of Conferences* **66** (2014) 11043.
- [2] D.L. Balabanski et al., *Acta Phys. Pol. B*, **45** (2014) 483.