PN-IV-P1-PCE-2023-0273

Investigation of the nuclear structure at the proton stability line (PROLINE)

Planned activities

No	Activity	Delivrable	Date
O1.1	Deformed Cluster Hartree-Fock-Bogoliubov (dCHFB) approach	Computer code	12.2025
O2.1	Multistep Shell Model (MSM) description of nuclei above doubly magic nucleus ^{100}Sn.	Computer code, Scientific paper	12.2025
O3.1	R-matrix/pn-dQRPA description of the beta delayed proton, two-proton and alpha emission	Computer code, Scientific paper	12.2025
O4.1	Semiclassical description of nuclear dynamics related to triaxial shapes	Scientific paper, Report	12.2025
O1.2	Systematics of the cluster mean field at the proton stability line	Scientific paper	12.2026
O2.2	Investigate energy levels, electromagnetic and beta transitions above ^{100}Sn	Scientific paper	12.2026
O3.2	Systematics of proton, two-proton and alpha emission by using beta-delayed data	Scientific paper	12.2026
O4.2	Phenomenological interpretation of chiral and wobbling bands in proton-rich nuclei	Scientific paper, Report	12.2026
O1.3	Influence of alpha clustering on electromagnetic and beta decays at the proton stability line	Scientific paper	12.2027
O2.3	Alpha and beta decay reduced widths above ^{100}Sn	Scientific paper	12.2027
O3.3	Competition of decay modes at the proton stability line and astrophysical implications	Review paper	12.2027
O4.3	Rotational phase transitions in atomic nuclei	Final report	12.2028

Gantt chart of the project