

Articles published in scientific journals (team members' names are marked in bold):

- A1. **A. R. Raduta, M. V. Beznogov.** *New ab initio constrained extended Skyrme equations of state for simulations of neutron stars, supernovae, and binary mergers: I. Subsaturation density domain* // [Astron. Astrophys. **701**, A143 \(2025\)](#); IF: 6.1, JCI: 1.30, AIS: 1.712
- A2. **M. V. Beznogov, A. R. Raduta.** *Bayesian inference of the dense matter equation of state built upon extended Skyrme interactions* // [Phys. Rev. C, **110**, 035805 \(2024\)](#); IF: 3.4, JCI: 1.41, AIS: 0.630

Articles in press (team members' names are marked in bold):

- A3. **A. R. Raduta, M. V. Beznogov.** *New ab initio constrained extended Skyrme equations of state for simulations of neutron stars, supernovae and binary mergers: II. Thermal response in the suprasaturation density domain* // Astron. Astrophys., in press; [ArXiv: 2509.23910 \(2025\)](#); IF: 6.1, JCI: 1.30, AIS: 1.712

Submitted articles (team members' names are marked in bold):

- A4. **M. V. Beznogov, A. R. Raduta.** *On the Inner Crusts of Neo-Neutron Stars: exotic light nuclei, diffusional and thermodynamical stability* // Phys. Rev. C., submitted; [ArXiv: 2504.12887 \(2025\)](#); IF: 3.4, JCI: 1.41, AIS: 0.630
- A5. **S. Chatterjee,** S. Haque, K. Krishna Nath, R. Nandi, R. Mallick. *Distinct Signatures of the Nature of Phase Transition in Binary Neutron Star Mergers* // Phys. Rev. Lett., submitted; [ArXiv: 2503.23047 \(2025\)](#); IF: 9.0, JCI: 2.38, AIS: 2.885