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Curriculum Vitae

PERSONAL INFORMATION

Mare Adrian Sorin

Str.Reactorului no.30. R-077125, Bucharest-Măgurele, ROMANIA

mareadriansorin@yahoo.com

Sex M | Date of birth 02/05/1995 | Nationality Romanian

WORK EXPERIENCE

2018-Present

Scientific Research Assistant

Horia-Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH) – Hadron Physics Department (HPD)

2019-present

PhD student

University of Bucharest, Faculty of Physics
Theoretical Physics

2017-2019

MSc in Theoretical Physics

University of Bucharest, Faculty of Physics

2014-2017

BSc in Physics

"Babes-Bolyai" University of Cluj-Napoca, Faculty of Physics

Present fields of competence

- Variational approaches with symmetry projection before variation belonging to the Complex Vampir model family
- Weak interactions rates of relevance in astrophysical scenarios
- Beyond Mean Field microscopic description of coexistence phenomena manifested by structure and dynamics of exotic nuclei
- Implementation of the first-forbidden beta decay formalism in the VAMPIR codes
- Implementation of weak interaction rates in rp-process type I x-ray burst codes

Publications

- ***A. S. Mare***, A. Petrovici, submitted for publication *Phys. Rev. C*
- R. E. Mihai, ***A. S. Mare*** et al., *Phys. Rev. C* ***106,*** 024332 (2022)
- A. Petrovici, ***A. S. Mare***, *Phys. Rev. C* ***101,*** 024307 (2020)
- A. Petrovici, ***A. S. Mare***, O. Andrei, B. S. Meyer, *Phys. Rev. C* ***100,*** 015810 (2019)
- A. Petrovici, O. Andrei, A. S. Mare, AIP Conference Proceedings **2076**, 020001 (2019)

Presentations

- A. S. Mare, Talk: "Impact of ^{68}Se and ^{72}Kr stellar weak interaction rates on *rp*-process nucleosynthesis and energetics ", Bormio, Italy, 2020
- A. S. Mare, Talk : " Weak interaction rates for exotic nuclei relevant in nuclear astrophysics ",University of Bucharest Scientific Communications Session 2018
- A. Petrovici, invited talk at IMNA Workshop, ECT-Trento November 2018(in collaboration with A. S. Mare, O. Andrei)
- A. S. Mare, Talk: "Beyond-mean-field approach to *rp*-process waiting point nuclei and effects on type I X-ray bursts", Young Researchers Scientific Session IFIN-HH, Bucharest, 2018