



Contribution ID: 249

Type: **Contributed e-poster**

Nuclear dynamics with the Barcelona-Catania-Paris-Madrid functional

Wednesday, 10 July 2024 11:00 (30 minutes)

The Time Dependent Hartree-Fock (TDHF) approach is a microscopic self-consistent mean-field model to describe dynamical processes of many-body systems. We modify the open-source Sky3D code, which implements TDHF with a Skyrme functional, and repurpose it to employ the Barcelona-Catania-Paris-Madrid (BCPM) energy density functional. We present preliminary results for both static and dynamical simulations of different nuclei using the BCPM functional and compare them with results obtained with Sky3D. Our ultimate aim is the simulation of nuclear collisions and dynamical fission processes with BCPM.

session

Primary author: Mr SOLER MIRAS, Daniel (University of Barcelona)

Co-author: RIOS HUGUET, Arnau (University of Barcelona)

Presenters: RIOS HUGUET, Arnau (University of Barcelona); Mr SOLER MIRAS, Daniel (University of Barcelona)

Session Classification: Poster session