



Contribution ID: 16

Type: **Poster**

A unified mechanism for the origin and evolution of nuclear magicity

Recent experimental studies of exotic nuclei have revealed limitations in our understanding of nuclear shell evolution and magicity. We present evidence that a relativistic description of nuclear structure, particularly considering the unique contribution of a spin-0 boson mediator in the nucleon-nucleon interaction, is crucial for explaining the emergence and evolution of magic numbers from stable to exotic nuclei. This novel perspective successfully describes the major experimental findings on nuclear magicity across the nuclear chart while offering testable predictions for future investigations.

Author: EBRAN, Jean-Paul

Presenter: EBRAN, Jean-Paul

Session Classification: Poster session

Track Classification: Nuclear Structure, Spectroscopy and Dynamics