

Why do nuclei exist?

It is one thing to discover the atomic nucleus but it is quite another matter to explain why this entity exists at all in Nature. The way from the Rutherford fundamental discovery to our days clearly shows that the essence of the so called nuclear forces can not be understood without such explanation.

Only own Laws of Nature that is Laws of Natural Physics, independent from the observers and an act of observation, can distinguish the sense from a nonsense and explain why Nature is just the way it is. From the Laws of Natural Physics it follows that all nuclei are the different states of the unique inextricable connected natural system of fields that is defined by the new natural representations about time, charge, internal symmetry and spin. We establish the Lagrangian of this system and outline the simple scheme of possible applications.

Section

Nuclear structure: theory and experiment

Primary author: PESTOV, Ivanhoe (Bogoliubov Laboratory of Theoretical Physics, JINR)

Presenter: PESTOV, Ivanhoe (Bogoliubov Laboratory of Theoretical Physics, JINR)

Session Classification: Poster session