Contribution ID: 120 Type: Oral

## Elastic form factors of light alpha-cluster nuclei

Thursday, 26 September 2024 14:50 (20 minutes)

Within the  $\alpha$ -particle model, the structure of  $^{12}C$ ,  $^{16}O$ , and  $^{20}Ne$  nuclei is studied. With the use of the variational method with Gaussian basis, the wave functions are found for three-, four-, and five-particle systems consisting from  $\alpha$ -particles. The charge density distributions and elastic form factors of  $^{12}C$ ,  $^{16}O$ , and  $^{20}Ne$  nuclei are calculated within the Helm approximation.

Primary author: GRINYUK, Borys (Bogolyubov Institute for Theoretical Physics)

Presenter: GRINYUK, Borys (Bogolyubov Institute for Theoretical Physics)

Session Classification: Afternoon Session 3

Track Classification: HIGH ENERGY PHYSICS AND NUCLEAR MATTER