

The 22<sup>nd</sup> International Conference on  
**Strangeness in Quark Matter**  
22-27 March, 2026, Los Angeles, CA



Contribution ID: 89

Type: **Poster Presentation**

## **System-Size and Nuclear-Structure Effects in Light-Ion Collisions from AMPT at RHIC and LHC Energies**

*Tuesday, 24 March 2026 18:45 (1 minute)*

Light-ion collisions offer a unique opportunity to investigate system-size scaling in relativistic heavy-ion collision dynamics. Using the AMPT model, we study O–O and Ne–Ne collisions at 5.36 TeV and 200 GeV to examine charged-particle production, strangeness enhancement, and collective flow. By comparing systems of similar mass but different nuclear structure, we explore the sensitivity of these observables to the initial nuclear geometry. Furthermore, by analyzing different collision energies, we explore the energy dependence of nuclear-structure effects within the model. Our results provide constraints on nuclear structure measurements using relativistic heavy-ion collisions.

**Authors:** STOJANOVIC, Milan (University of Belgrade (RS)); ASHRAF, Muhammad Usman (Wayne State University)

**Presenters:** STOJANOVIC, Milan (University of Belgrade (RS)); ASHRAF, Muhammad Usman (Wayne State University)

**Session Classification:** Poster Session