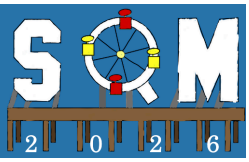
The 22nd International Conference on
Strangeness in Quark Matter
22-27 March, 2026, Los Angeles, CA



Contribution ID: **29** Type: **Poster Presentation**

Probing the evolution of light-ion collisions using resonances with ALICE

Tuesday, 24 March 2026 18:27 (1 minute)

Collisions of light ions (OO, Ne–Ne, and pO) at the LHC bridge the gap between small and large systems, offering new insight into the onset of collective behavior and hadronic medium effects. Hadronic resonances, owing to their lifetimes comparable to the hadronic phase, serve as sensitive probes of late-stage dynamics where re-scattering and regeneration compete.

We present measurements of the production and elliptic flow (v_2) of the K^{*0} and ϕ mesons in light-ion collisions with ALICE. System-size–dependent observables, including transverse momentum spectra, integrated yields, mean transverse momentum and yield ratios to stable hadrons, are compared to corresponding results from pp and heavy-ion collisions. These comparisons elucidate the evolution of hadronic medium effects and collective behavior with increasing system size. The ϕ/K^{*0} yield ratio, together with model comparisons, further constrains the role of hadronic rescattering and regeneration in determining the final resonance yields and flow.

Author: GAMI, Sarjeeta (National Institute of Science Education and Research (NISER) (IN))

Presenter: GAMI, Sarjeeta (National Institute of Science Education and Research (NISER) (IN))

Session Classification: Poster Session