ExtreMe Matter Institute EMMI

EMMI Workshop

Light-Ion Collisions 2026

September 21-25, 2026
Heidelberg University, Germany

Recent light-ion collision campaigns — proton-oxygen, oxygen–oxygen and neon–neon runs at the LHC, and oxygen–oxygen collisions at RHIC — have opened a transformative window onto the origins of collective behavior in small QCD systems. Simultaneously, high-energy collisions offer a novel probe of nuclear ground-state structure. Driven by these research frontiers, the 2026 EMMI Workshop on Light-Ion Collisions serves as a dedicated forum to synthesize the emerging experimental results, clarify their implications for the field, and discuss scientific cases for ion runs in LHC Run 4 and beyond.

Scientific program:
- Out-of-equilibrium QCD phenomena and onset of collectivity
- Onset of jet quenching in small and intermediate systems
- Collectivity of heavy flavors across system sizes and shapes
- Interdisciplinary connections (nuclear structure, nuclear astrophysics, neutrinoless double-beta decay, cold atoms)
- Prospects for future ion runs at LHC Run 4 and beyond

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Information:
www.gsi.de/emmi/workshops

Website:
https://indico.gsi.de/event/25022/

More about EMMI:
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