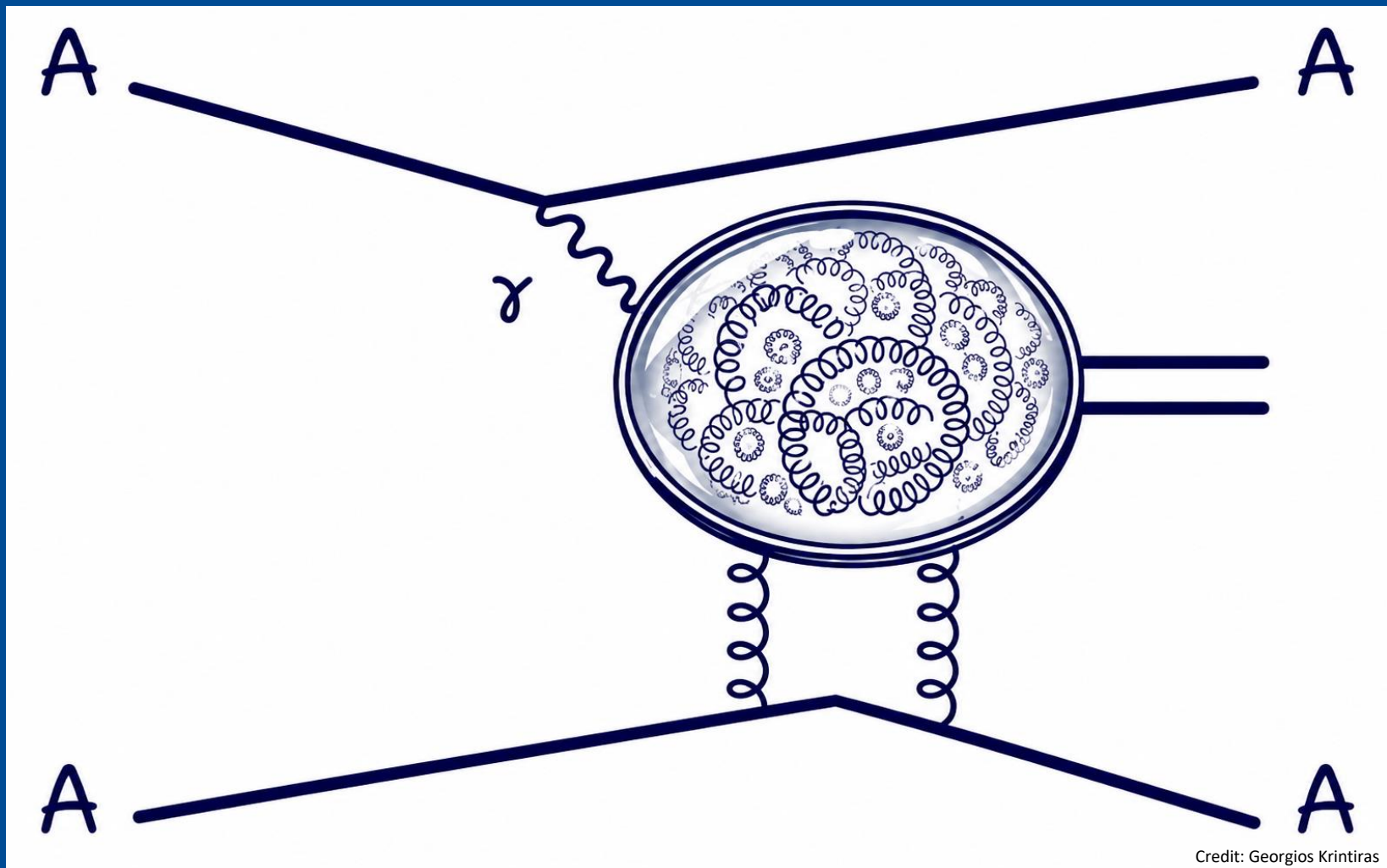


ExtreMe Matter Institute EMMI

EMMI Workshop

Mining for gluon saturation at the LHC and the future EIC

July 6 – 10, 2026
GSI, Darmstadt, Germany



Credit: Georgios Krintiras

The workshop focuses on the search for the high-gluon-density regime and gluon saturation at the LHC — a central goal of current LHC physics and a key motivation for the Electron-Ion Collider (EIC) at BNL. This regime enables controlled, non-linear QCD calculations within the Color Glass Condensate framework. Saturation effects are expected at high energies and small but perturbative hard scales, and are amplified in heavy nuclei due to enhanced gluon densities.

Key Topics:

- Saturation effects vs. collinear approaches
- Gluon saturation and transverse momentum dependent PDFs
- Diffractive events

Organizers:

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Martin Hentschinski
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Information:

www.gsi.de/emmi/workshops

Website:

<https://indico.gsi.de/event/24193/>

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