

## Relativistic heavy-ion collisions: from the initial to the final state

*Monday 26 January 2026 15:35 (20 minutes)*

I will introduce the stages of relativistic heavy-ion collisions, with particular emphasis on the initial state and the characterization of the final hadronic outcome.

For the initial state, I will connect to the HADNUCMAT project, which studies nuclear deformation and its relevance in heavy-ion physics.

Concerning the final state, I will emphasize the application of femtoscopy correlation functions of final-state hadrons produced in proton-proton and ion-ion collisions, and connect to the HADNUCMAT femtoscopy project carried out by the PhD student Marc Piquer. He will conclude the talk by discussing baryon-baryon femtoscopy and the application of machine-learning techniques.

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