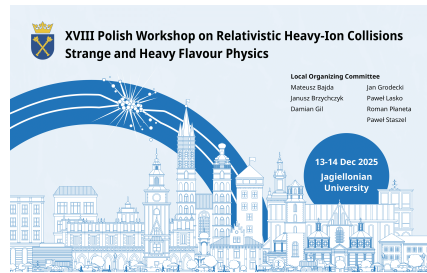


# XVIII Polish Workshop on Relativistic Heavy-Ion Collisions: Strange and Heavy Flavour Physics



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## Quantum mechanics in heavy-ion collisions

*Sunday 14 December 2025 12:20 (15 minutes)*

In the standard picture of heavy-ion collisions, it seems that a large part of the evolution of the produced fireball can be described in terms of classical theories: relativistic hydrodynamics, the relativistic Boltzmann equation. The quantum effects seem to be restricted to the very initial stages, and the computation of some material properties, for instance the transport coefficients.

Recent results highlight that the quantum corrections are, in fact, large. The success of such classical models can be explained within quantum field theory.

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