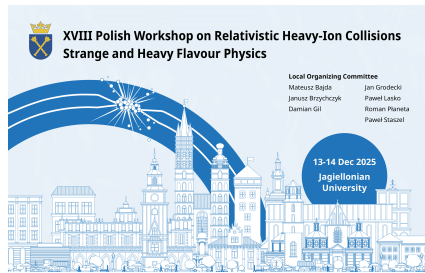


# XVIII Polish Workshop on Relativistic Heavy-Ion Collisions: Strange and Heavy Flavour Physics



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## Overview of femtoscopic analyses at HADES

*Sunday 14 December 2025 13:05 (15 minutes)*

HADES is an experiment located at the SIS-18 accelerator in GSI, Darmstadt, Germany. It is a detector setup primarily developed for precise measurements of dielectrons, but it soon found other uses, including femtoscopy. High angular acceptance and interaction rates enable the collection of large quantities of high-quality data, making them useful for any type of analysis. HADES is focused on probing the high-density parts of the phase diagram, making it an interesting choice for femtoscopic analyses.

Femtoscopic correlations are a method for probing the size and the dynamics created in proton-proton or heavy-ion collisions. A multitude of beamtimes allows for analyses of different systems (p+p at  $\sqrt{s_{NN}} = 4.5$  GeV, Ag+Ag at  $\sqrt{s_{NN}} = 2.55$  GeV, Au+Au at  $\sqrt{s_{NN}} = 2.4$  GeV).

Results for different femtoscopic analyses (e.g. pion, NN, and NY correlations) performed with the HADES experiment will be presented during the talk.

Keywords: HADES, femtoscopy

**Primary author:** PRĘDOTA, Michał (Warsaw University of Technology)

**Presenter:** PRĘDOTA, Michał (Warsaw University of Technology)

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