Contribution ID: **258** Type: **Oral report**

Efficiency study of the ECal detector of the HADES experiment

Tuesday, 21 September 2021 17:05 (25 minutes)

The High Acceptance DiElectron Spectrometer (HADES) is a fixed target experiment which explores the properties of hadronic matter in collisions of pions, protons and nuclei at beam energies 1-2 AGeV. Currently the HADES experiment operates at the SIS18 accelerator in GSI, Darmstadt. When the SIS100 accelerator is built, HADES will be the first experiment in FAIR Phase-0 project.
In order to extend capabilities of HADES in measurements of hyperons and neutral mesons, the new electromagnetic calorimeter ECal was built. In March 2019 the ECal detector was used for the first time in measurements of Ag+Ag collisions at beam energies 1.58 and 1.23 AGeV. The calibration of ECal was done using electrons and positrons emitted in collisions. Their identification and measurement of momentum was carried out by the RICH, MDC and RPC detectors.
This talk describes the procedure of the ECal efficiency determination with usage of machine learning.

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Session Classification: Section 3. Modern nuclear physics methods and technologies

Track Classification: Section 3. Modern nuclear physics methods and technologies.