FAKT Workshop 2023: Particle Physics Retreat



Contribution ID: 6

Type: Experiment

Low-mass dielectron measurements in pp, p-Pb and Pb-Pb collisions with ALICE at the LHC

Thursday 23 February 2023 14:30 (25 minutes)

The measurement of low-mass e+e- pairs is a powerful tool to study the properties of the quark-gluon plasma created in ultra-relativistic heavy-ion collisions. Since such pairs do not interact strongly and are emitted during all stages of the collisions, they allow us to investigate the full time evolution and dynamics of the medium created. In particular, thermal radiation emitted by the colliding system, both during the partonic and hadronic phase, contributes to the dielectron yield over a broad mass range and gives insight into the temperature of the medium together with real photon measurements. In this contribution, I will present the most recent low-mass dielectron measurements with the ALICE detector at LHC, in pp, p-Pb and Pb-Pb collisions at different energies. The results will be compared with the expected dielectron yields from known hadronic sources and with theoretical predictions.

Author: SAMITZ, Daniel (Austrian Academy of Sciences (AT))

Presenter: SAMITZ, Daniel (Austrian Academy of Sciences (AT))