Contribution ID: **9** Type: **not specified**

Quark Gluon Plasma Effects on Hadronization

Wednesday 29 June 2022 11:19 (11 minutes)

The quark-gluon plasma, a very exotic state of matter usually referred to as QGP, is expected to form under extreme conditions of temperature and pressure, just like the ones in the primordial universe or those at the core of a neutron star. Although Earth conditions are very different, here, Ultra Relativistic Heavy Ion Collisions allow to recreate such medium. Using the CMS detector at the LHC, its remnants can be observed and studied. A key signature of its presence relates to the relative abundance of different B mesons that result from the hadronization of the beauty quark. By studying the production of B mesons in Lead-Lead and proton-proton collisions, we measure the nuclear modification factors for the different B mesons.

Author: LEGOINHA, Henrique (LIP - Laboratorio de Instrumentação e Física Experimental de Partículas (PT))

Presenter: LEGOINHA, Henrique (LIP - Laboratorio de Instrumentação e Física Experimental de Partículas (PT))