

# 10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



Contribution ID: 196

Type: Oral Presentation

## Measurements of nuclear modification factors of $B_S^0$ and $B^+$ mesons in PbPb collisions with the CMS experiment

*Wednesday, June 3, 2020 10:50 AM (20 minutes)*

Beauty quarks are considered as one of the best probes of the strongly interacting medium created in relativistic heavy-ion collisions because they are predominantly produced via initial hard scatterings. Measurements of B meson production provide information about the diffusion of beauty quarks and the flavor dependence of in-medium energy loss. In these studies, clarifying the hadronization mechanism is crucial for understanding the transport properties of beauty quarks. Measurements of  $B_S^0$  production can shed light on the mechanisms of beauty recombination in the medium and provide information about strangeness enhancement in the quark-gluon plasma. In this talk, we will present a new measurement of the ratio of  $B_S^0$  to  $B^+$  mesons in PbPb collisions at 5.02 TeV with the CMS detector, using data recorded in 2018.

### Collaboration (if applicable)

CMS

### Track

Heavy Flavor and Quarkonia

### Contribution type

Contributed Talk

**Primary author:** PETRUSHANKO, Serguei (M.V. Lomonosov Moscow State University (RU))

**Presenter:** SHI, Zhaozhong (Massachusetts Inst. of Technology (US))

**Session Classification:** Parallel

**Track Classification:** Heavy Flavor and Quarkonia