

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



Contribution ID: 232

Type: **Oral Presentation**

## $J/\psi$ production in jets in p+p collisions at $\sqrt{s} = 500$ GeV by STAR

*Tuesday, June 2, 2020 12:55 PM (20 minutes)*

The suppression of  $J/\psi$  production caused by the color-screening effect in heavy-ion collisions is considered as an evidence of the creation of quark-gluon plasma. To interpret the observed suppression in heavy-ion collisions, a good understanding of its production mechanism in p+p collisions is needed. However, the production of  $J/\psi$  in hadronic collisions remains not fully understood and requires further studies. Recently,  $J/\psi$  production in jets was proposed as a useful observable to help explore the  $J/\psi$  production mechanism, and to differentiate various  $J/\psi$  production models.

In this talk, we will present the measurement of the fraction of charged jet transverse momentum ( $p_T$ ) carried by the  $J/\psi$  meson,  $z(J/\psi) \equiv p_T(J/\psi)/p_T(jet)$ , at mid-pseudorapidity ( $|\eta| < 1$ ) with a kinematic cut of  $p_T(J/\psi) > 5$  GeV/c in p+p collisions at  $\sqrt{s} = 500$  GeV by the STAR experiment. The comparison to model calculations and similar measurements carried out at the LHC will be presented, and its physics implications will be discussed.

### **Collaboration (if applicable)**

STAR

### **Track**

Heavy Flavor and Quarkonia

### **Contribution type**

Contributed Talk

**Primary author:** STAR COLLABORATION

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**Session Classification:** Parallel

**Track Classification:** Heavy Flavor and Quarkonia