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Type: **Parallel Talk**

## Jet fragmentation and shapes for inclusive, b-tagged, and photon-tagged jets in pp and PbPb collisions with the CMS detector

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Correlations of electroweak probes, jets, and charged particles are a powerful tool to study medium modifications of the parton shower. One can impose constraints on jet quenching mechanisms in heavy ion collisions by measuring jet substructure observables, such as fragmentation functions or jet momentum density profiles. Tagging jets with an associated photon helps to constrain the associated parton kinematics and flavor before quenching. Additionally, parton flavor dependence of these observables can be explored by comparing the results for the inclusive jet sample, which is dominated by gluon-induced jets, to one with a b-tagged jet-selection. Measurements of photon-tagged jet fragmentation functions and the jet shapes for inclusive, b-tagged, and, for the first time, photon-tagged jet sample in pp and PbPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV collision energy using data collected by CMS will be reported. Besides, the corresponding measurements for inclusive and b-tagged jets will be shown in context of parton flavor dependence.

### Content type

Experiment

### Collaboration

CMS

### Centralised submission by Collaboration

Presenter name already specified

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**Session Classification:** Jet modifications and high-pT hadrons

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