

# 11th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



Beitrag ID: 144

Typ: Poster

## Studies of large- $R$ jets and their substructure in Pb+Pb and $pp$ collisions with ATLAS

*Dienstag, 28. März 2023 18:15 (2 Stunden)*

Measurements of the jet substructure in Pb+Pb collisions provide information on the jet quenching in the quark-gluon plasma (QGP) created in these collisions, over a wide range of energy scales. This poster presents ATLAS measurement of the suppression of yields of large-radius jets and its dependence on the jet substructure, characterized by the presence of sub-jets. This measurement is performed using the large Pb+Pb data sample at the center-of-mass energy of 5.02 TeV recorded in 2018 and compared to the result from  $pp$  collisions at the same collision energy. Studies of the suppression of inclusive yields of large- $R$  jets probe the angular redistribution of energy in the parton shower and medium response when compared to existing measurements of suppression of smaller jets. Further, this measurement might provide new information about the scales at which jet constituents lose energy coherently or as independent color charges.

### Experiment/Theory

ATLAS

### Affiliation

ATLAS Collaboration

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**Sitzung Einordnung:** Poster Session

**Track Klassifizierung:** Jets and their modification in QCD matter