

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



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## Charged-particle production as function of event multiplicity in ALICE

*Tuesday, June 2, 2020 7:30 AM (1h 20m)*

The ALICE experiment at the LHC is designed to investigate the properties of the Quark-Gluon Plasma by studying high-energy A–A collisions. Medium effects like parton energy loss can be examined by measuring the production of charged particles at high transverse momentum ( $p_T$ ). In particular, the correlation between  $p_T$  spectra and event multiplicity of charged particles can give a handle on the different production mechanisms of charged particles.

In this poster, we report on charged-particle  $p_T$  spectra as a function of the event multiplicity in pp collisions at  $\sqrt{s} = 2.76, 5.02, 7$  and 13 TeV as well as in p-Pb and Pb–Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV to study the energy and system size dependence. By comparing to QCD-inspired models, this measurement can help in understanding the event multiplicity dependence of charged-particle production mechanism.

### Collaboration (if applicable)

ALICE

### Track

Jets and High Momentum Hadrons

### Contribution type

Poster

**Primary author:** HUHN, Patrick (Johann-Wolfgang-Goethe Univ. (DE))

**Presenter:** HUHN, Patrick (Johann-Wolfgang-Goethe Univ. (DE))

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