

## Contribution submission to the conference SMuK 2021

**Reconstruction of Bottom Jets in Proton-Proton Collisions at  $\sqrt{s} = 13$  TeV with ALICE** — •KATHARINA DEMMICH for the ALICE-Collaboration — Westfälische Wilhelms-Universität Münster

When traversing the Quark-Gluon Plasma (QGP), partons lose energy via collisional and radiative processes. The amount of lost energy depends on the particle mass and manifests in a reduced jet multiplicity in heavy-ion collisions with respect to proton-proton collisions, for which no QGP is expected to form. A detailed knowledge about the charm and bottom-jet production in proton-proton collisions is thus inevitable for further investigations on particle energy loss within the QGP.

Owing to the relatively large lifetimes and the cascade of weak decays of B hadrons, transverse impact parameter spectra, as a measure for the distance between particle tracks and the primary vertex, offer a great opportunity to investigate the bottom-jet production. Results of a performance analysis of a bottom-jet selection algorithm based on transverse impact parameter spectra will be presented for 13 TeV proton-proton collisions.

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**Type:** Vortrag;Talk  
**Topic:** Schwerionenkollisionen und QCD Phasen  
**Email:** katharina.demmich@uni-muenster.de