Contribution ID: **4** Type: **Talk**

How the blast-wave model describes PID hadron spectra from 5 TeV p-Pb collisions

Wednesday 3 August 2022 10:15 (25 minutes)

The blast-wave (BW) pt spectrum model has been applied extensively to nucleus-nucleus collision data at a variety of collision energies since commencement of the sulfur-beam program at the SPS. Initially, BW model analysis was intended as one means to demonstrate formation of a dense flowing medium or quark-gluon plasma (QGP) in more-central A-A collisions. In recent years the BW model has also been applied to p-p, d-Au and p-Pb collisions. Results appear to provide supporting evidence that collective flows and possible creation of QGP may occur in smaller collision systems as well. In this talk I consider several variations of the BW model and their supporting assumptions. As a specific example I review results from BW model analysis of identified-hadron (PID) pt spectra from 5 TeV p-Pb collisions. I provide a detailed examination of the shape evolution of model spectra in response to changing collision centrality and hadron species. Finally, I evaluate model fit quality using several conventional statistical measures.

Preferred track

Collectivity & Multiple Scattering

Subfield

Heavy-ion experiment

Attending in-person?

Yes

On behalf of collaboration?

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