Contribution ID: **531**   Type: **Poster**

Hybrid Hadronization of Jet Showers in Vacuum with JETSCAPE

Tuesday 5 September 2023 17:30 (2h 10m)

In this talk we review the hadronization of jets in various vacuum collision systems using the JETSCAPE event generator and Hybrid Hadronization. Hybrid Hadronization combines quark recombination, applicable when distances between partons in phase space are small, and string fragmentation appropriate for dilute parton systems. It can therefore smoothly describe the transition from very dilute parton systems like to full AA collisions. We test this picture by using JETSCAPE to generate jets in various systems. Comparison to experimental data for several observables at multiple energies allows for a precise calibration of vacuum baseline parameters in JETSCAPE and Hybrid Hadronization. We use charged hadron, identified hadron and jet spectra in a Bayesian calibration to find the best parameter tune. The inclusion of further observables in p+p and e+e- in the future is discussed.

Category

Theory

Collaboration (if applicable)

JETSCAPE Collaboration

Authors: SCHENKE, Bjoern (Brookhaven National Lab);   PARKER, Cameron

Presenter: PARKER, Cameron

Session Classification: Poster Session

Track Classification: Jets