Contribution ID: **162** Type: **not specified**

Resonances production in-and-out of jets in pp collisions at sqrt(s) = 13.6 TeV

Recent experimental results on two-particle correlations within jets with extremely high multiplicities in pp collisions highlight a strong flow-like correlation among constituents. This has led to the hypothesis that a hot and dense QCD medium may form within these jets, a phenomenon previously thought to occur exclusively in heavy-ion collisions. One notable characteristic of such medium formation is the altered production ratio among different species of particles. We aim to investigate this phenomenon by analyzing the yields of K*and Φ mesons within high-multiplicity jets in pp collisions at √s = 13.6 TeV with LHC Run 3 data obtained with ALICE. The analysis utilizes charged-particle jets and per-jet yields of K* and Φ are investigated in and out of such jets. The focus on these particles is expected to provide valuable insights into the intricate dynamics of QCD medium creation and its influence on particle production patterns.

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Track Classification: 6. Collectivity in small systems