

Monte Carlo Simulations on Charmed-strange tetraquarks

Thursday, 15 May 2025 15:20 (20 minutes)

We simulate the production of charmed-strange tetraquarks, $T_{cs0}(2900)^0$, $T_{cs1}(2900)^0$, $T_{c\bar{s}}(2900)^0$ and $T_{c\bar{s}}(2900)^{++}$, as hadronic molecules, in pp collisions through the framework of hadronic rescattering. The transverse momentum and rapidity distributions of selected tetraquarks are also studied under different multiple-parton interaction (MPI) tuning. The transverse momenta are found to be sensitive to the MPI effects, which could become a good index for future MC tuning.

Primary author: YANG, Hao (Xi'an Jiaotong-Liverpool University)

Presenter: YANG, Hao (Xi'an Jiaotong-Liverpool University)

Session Classification: Parallel III: Hadron Spectroscopy