Neutral Hadron Reconstruction at BESIII: new developments and challenges

Saturday, 13 July 2024 10:30 (45 minutes)

The reconstruction of neutral hadrons, particularly (anti-)neutrons, presents a significant challenge in highenergy physics experiments, notably at BESIII, which lacks a dedicated hadronic calorimeter. This talk will cover the innovative techniques applied in the identification of neutrons, in the first observation of the $\Lambda_c^+ \rightarrow ne^+\nu$ process. Furthermore, it will discuss the ongoing exploration of (anti-)neutrons position and energy reconstruction, highlighting the latest advancements.

Primary authors: LI, Yangu (Peking University); SONG, Yunxuan (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Presenter: SONG, Yunxuan (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Session Classification: 人工智能和机器学习的应用

Track Classification: 人工智能和机器学习的应用