

Recent studies on vector charmonium-(like) states at BESIII

Saturday 20 July 2024 09:15 (15 minutes)

This talk will present four recent measurements conducted by BESIII, focusing on the cross-sections of electron-positron annihilation into open-charm and hidden-charm final states within the center-of-mass energies ranging from 3.80 to 4.95 GeV. The open charm final states include $e^+e^- \rightarrow D\bar{D}$ and $D_s^+D_s^-$, revealing abundant structures in their cross-section line shapes. The hidden-charm final states encompass $e^+e^- \rightarrow \eta h_c$ and $\omega\chi_{c1/2}$, with an observed structure near 4.2 GeV in the former channel and two structures in the latter. While one of these structures can be linked to the previously discovered $\psi(4415)$, the others represent novel observations. These new cross-section measurements at the τ -charm energy region provide crucial insights into the spectrum of vector charmonium and charmonium-like states.

Alternate track

1. Quark and Lepton Flavour Physics

I read the instructions above

Yes

Author: BIANCHI, Fabrizio

Co-author: GUO, Yuping

Presenter: GUO, Yuping

Session Classification: Strong interactions and Hadron Physics

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