Contribution ID: **6** Type: **contributed parallel talk**

Cross-section measurements and search for vector states at cms energies 4-5 GeV

Tuesday, 18 July 2023 14:20 (20 minutes)

In recent years, BESIII has accumulated tens of 1/fb electron-positron colliding data samples at cms energies from 4 to 5 GeV. Cross-section measurements are performed with specific final states to search for vector charmonium(-like) states. I shall present three corresponding recent results in this talk. It includes: 1) cross-sections of e+ e- -> Ks Ks J/psi from 4.13 to 4.95 GeV, in which Y(4230) is observed and there is an evidence of a new vector charmonium-like state Y(4710); 2) cross-sections of e+ e- -> D*0* *D*+ pi- from 4.19 to 4.95 GeV, where three enhancements around 4.20, 4.47 and 4.67 GeV has been observed; 3) helicity amplitude analysis of e+ e- -> pi+ pi- omega has been performed from 4.0 to 4.6 GeV, Born cross-sections of two body intermediate states have been presented and an evidence of a resonance state around 4.2 GeV is found.

Consent

I consent to recording/broadcasting my presentation.

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Session Classification: Parallel B

Track Classification: charmonia