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Type: **Talk**

Study of double J/ψ production mechanisms at COMPASS

Tuesday 8 September 2020 16:55 (25 minutes)

During the past 40 years the production of pairs of the J/ψ mesons in high energy hadron collisions has been studied by several experiments. Despite the experimental and theoretical efforts, the origin of the process and the relative weight of different production mechanisms still remains unknown. Depending on the energy scale the double J/ψ production can be described by single- and double-parton scattering sub-processes and gluon-gluon fusion or quark-antiquark annihilation mechanisms. The process can also be related to the hypothesis of the intrinsic charm of hadrons and the existence of exotic tetraquark states which were predicted by various theoretical models and have recently been observed by the LHCb experiment.

To study dimuon reactions the COMPASS experiment at CERN uses a 190 GeV/c negative pion beam impinging on different nuclear targets. In this talk, first preliminary COMPASS results on J/ψ pair production will be presented. The study of double J/ψ production mechanisms will be discussed.

Is this abstract from experiment?

Yes

Internet talk

Yes

Name of experiment and experimental site

COMPASS, <https://www.compass.cern.ch>

Is the speaker for that presentation defined?

Yes

Details

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