Contribution ID : **39** Type : **plenary talk**

The overview of the recent results of the hadronic cross sections measurement with the CMD-3 detector at e+e- collider VEPP-2000

Saturday, 4 June 2016 12:00 (0:30)

Collaboration

CMD-3

Abstract content

The CMD-3 detector collected data since December 2010 at the electron-positron collider VEPP-2000. The data sample corresponds to about 60 inverse picobarn of integrated luminosity collected in the c.m. energy range from 0.32 up to 2 GeV. The measurement of the integrated luminosity is based on two QED processes: $e^+e^- \to e^+e^-$ and $\gamma\gamma$, that provided the systematic accuracy in luminosity smaller 1%. The overview of the recent results of the analysis of various hadronic cross sections are presented for the processes such as: $e + e- \to 3(\pi^+\pi^-)$, $2(\pi^+\pi^-\pi^0)$, $2(\pi^+\pi^-)\pi^0$, $2(\pi^+\pi^-)$, $\pi^+\pi^-2\pi^0$, $\pi^+\pi^-\pi^0$, K^+K^-, K_SK_L, $K^+K^-\eta$, $K^+K^-\omega$, $K^+K^-\pi^+\pi^-$, $\pi^+\pi^-$ and others. The processes with multihadron events in final state have several intermediate states, which must be taken into account to correctly describe the angular and invariant mass distributions as well as the cross section dependence versus energy.

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Session Classification : Plenary Session