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Measurement of hadronic cross-sections with CMD-3 at VEPP-2000 (10' + 5')

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The first round of data taking with CMD-3 detector at VEPP-2000 e^+e collider (BINP, Novosibirsk, Russia) was performed in 2011-2013. The CMD-3 is the general purpose particle detector, equipped by tracking system, two crystal (CSI and BGO) calorimeters, liquid Xe calorimeter, TOF and muon systems. The main goal of experiments at CMD-3 is the measurement of cross-sections and dynamics of exclusive modes of $e^+e^- \rightarrow hadrons$. In particular, these results provide important input for calculation of the hadronic contribution to the muons anomalous magnetic moment.

Here we present the survey of results of analysis of data taken in 2011-2013, including modes of $e^+e^- \rightarrow hadrons$ with up to 6 pions or 2 kaons in final state. About 60 1/pb were taken in the energy range from 0.32 to 2.0 GeV in c.m. The beam energy was continuously measured concurrently with the data taking using Compton backscattering. In 2016 VEPP-2000 resumed operations after upgrade with project luminosity of $10^{32} \ cm^{-2} s^{-1}$ at 2 GeV.

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