



Contribution ID: 25

Type: **oral with proceeding**

## Collider experiment SND and Precision Physics with hadronic $e^+e^-$ cross sections

*Friday 18 May 2018 14:50 (25 minutes)*

Spherical neutral detector (SND) is an experiment for  $e^+e^-$  annihilation study at moderate energies 0.2-2 GeV. The light quark anti-quark bound states are main subject of study at these energies. The quark anti-quark states express themselves as resonances in the  $e^+e^- \rightarrow$  hadronic cross sections. The hadronic cross sections could be recalculated to hadronic vacuum polarization (HVP). The Standard Model predictions today are limited by HVP which is not calculable with modern Quantum chromo dynamics theory. In this talk we present the review of the hadronic cross sections measurements at SND and some new measurements:  $e^+e^- \rightarrow \pi^+\pi^-, \pi^0\gamma, K^+K^-, \omega\pi^0, K^+K^-\eta, \pi^+\pi^-\eta, K_SK_L\pi^0, \pi^+\pi^-\pi^0\eta, \omega\pi^0\eta$  e.t.c.

**print service**

**Authors:** KHARLAMOV, Alexey (Budker Institute of Nuclear Physics (RU)); Prof. ACHASOV, M.N. (BINP); Prof. AULCHENKO, V.M.; BARNYAKOV, Alexey (Budker Institute of Nuclear Physics (RU)); BELOBORODOV, Konstantin (Budker Institute of Nuclear Physics (RU)); Dr BERDYUGIN, A.V. (BINP); Dr BERKAEV, D.E. (BINP); BOGDANCHIKOV, Alexander (Budker Institute of Nuclear Physics (RU)); Mr BOTOV, A.A. (BINP); DRUZHININ, Vladimir (BINP, Novosibirsk); GOLUBEV, Vladimir (Budker Institute of Nuclear Physics); KARDAPOLTSEV, Leonid (Novosibirsk State University (RU)); Mr KASAEV, A.S.; Mr KIRPOTIN, A.N. (BINP); KOOP, Ivan (BINP); Mr KORNEEV, L.A. (BINP); Dr KOROL, Aleksandr (Budker Institute of Nuclear Physics (RU)); Mr KOSHUBA, S.V. (BINP); Mr KOVRIZHIN, D.P. (BINP); KUPICH, Andrey (Budker Institute of Nuclear Physics (RU)); Mr LITVINOV, R.A. (BINP); Ms MARTIN, K.A. (BINP); MELNIKOVA, Natalya (Budker Institute of Nuclear Physics (RU)); MUCHNOI, Nickolai; OBRAZOVSKY, Alexandr (Budker Institute of Nuclear Physics, Novosibirsk, Russia); Prof. PAKHTUSOVA, E.V. (BINP); Mr PUGACHEV, K.V. (BINP); Mr ROGOVSKY, Yu.A. (BINP); ROGOZINA, Elizaveta (Novosibirsk State University (RU)); SEREDNYAKOV, Sergey; Mr SENCHENKO, A.I. (BINP); SHTOL, Dmitry (Novosibirsk State University (RU)); SHWARTZ, Dmitry (BINP); Dr SILAGADZE, Z.K. (BINP); Mr SURIN, I.K. (BINP); Mr USOV, Yu.V. (BINP); Dr VASILJEV, A.V. (BINP); ZHABIN, Viktor (CERN); Dr DIMOVA, Tatyana (Novosibirsk State University (RU))

**Presenter:** KHARLAMOV, Alexey (Budker Institute of Nuclear Physics (RU))

**Session Classification:** Hadrons