

Physics program of a high-luminosity low-energy collider

Tuesday, 12 September 2017 18:00 (1 hour)

We present the physics program of a high-luminosity low-energy e^+e^- collider, which project is developed in BINP (Novosibirsk). The collider center-of-mass energy varies from 210 MeV up to 960 MeV. The physics program includes observaion and study of the μ^+mu^- bound state, dimuonium, measurement of effects of the final state interaction in the reactions $e^+e^- \rightarrow \mu^+mu^-$ and $e^+e^- \rightarrow \pi^+pi^-$ near thresholds, precise measurement of hadronic cross sections ($e^+e^- \rightarrow \pi^+pi^-$, $\pi^+pi^-\pi^0$, $\pi^0\gamma$ etc.), study of rare processes, in particular, observation of direct production of the pseudoscalar mesons η and η' .

Primary author: BELOBORODOV, Konstantin (Budker INP)

Presenter: BELOBORODOV, Konstantin (Budker INP)

Session Classification: Poster

Track Classification: Future facilities and instrumentation