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LOW-ENERGY ELECTRON-POSITRON COLLIDER TO SEARCH AND STUDY (mu+mu-) BOUND STATE

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The paper discusses a low energy e+e- collider for production of the (mumu-) bound system (dimuonium) which has not yet been observed. We use large crossing angle for e+e- beams intersection; therefore, dimuonium carries non-zero momentum and its decay point is shifted from the beam collision area providing effective suppression of the elastic e+e- scattering background. Discussion of the experiment constraints defines subsequent collider specifications. We show preliminary layout of the accelerator and obtained main parameters. Chosen beam energy range and high luminosity also allow to study pi+pi- and eta-mesons.

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