The 7th international conference on particle physics and astrophysics



Contribution ID : 82

Type : Oral talk

Production of leptonic bound states in electron – positron annihilation

Thursday, 24 October 2024 11:15 (15)

The cross sections for the production of single and paired dileptons in electron-positron annihilation are calculated within the framework of quantum electrodynamics. Both one-photon and two-photon mechanisms of electron-positron annihilation with subsequent production of leptons are considered. The formation of both singlet and triplet states of dimuonium and ditauonium is studied. The production cross sections are constructed taking into account relativistic corrections in the production amplitude and the wave function of the bound state, as well as the binding energy of leptons in the bound state.

Primary author(s) : MARTYNENKO, Fedor (Samara University); Prof. MARTYNENKO, Alexei (Samara University); ESKIN, Alexey (Samara University)

Presenter(s): MARTYNENKO, Fedor (Samara University)

Session Classification : HEP Theory

Track Classification : High energy physics: theory