



Contribution ID: 328

Type: Oral presentation using Zoom

Muon Production at the ILC

Wednesday, 27 October 2021 16:18 (24 minutes)

Conventional muon beams are produced using proton beams and are used in material sciences such as μ SR and elemental analysis, and fundamental physics experiments such as muon g-2 measurements and precision measurements of muoniums. These muon beams have high intensity but poor emittance, and their kinetic energies are $O(1)$ MeV. On the other hand, muon beams with a low emittance on the order of 10 GeV can be produced by using a high-energy electron/positron beam at the ILC. This is expected to have a wide range of applications such as radiography of huge structures, which has been conventionally performed with cosmic-ray muons, with high resolution using accelerator-generated muons. This talk will overview the way to produce muons from electron/positron beams at the ILC.

1st preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

2nd preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 PDT)

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Session Classification: S: ILC application (to physics, material science, etc.)

Track Classification: Parallel sessions: Accelerators: Session S: ILC application (to physics, material science, etc.)