Contribution ID: **26** Type: **not specified**

Fast and Precise Beam Energy Measurement Using Compton Backscattering at e+e- Colliders

Tuesday 23 August 2016 15:40 (20 minutes)

The report describes a method for a fast and precise beam energy measurement in the beam energy range 0.5-2 GeV and its application at various e+e- colliders. Low-energy laser photons interact head-on with the electron or positron beam and produce Compton backscattered photons whose energy is precisely measured by HPGe detector. The method allows measuring the beam energy with relative accuracy of ~20...5e-6. The method was successfully applied at VEPP-4M, VEPP-3, VEPP-2000 (BINP, Russia) and BEPC-II (IHEP, China).

Primary author: Mr KAMINSKIY, Viacheslav (Budker Institute of Nuclear Physics, Novosibirsk, Russia)

Presenter: Mr KAMINSKIY, Viacheslav (Budker Institute of Nuclear Physics, Novosibirsk, Russia)

Session Classification: Young Scientists' Forum

Track Classification: Accelerator design and technologies