Resonant depolarization process and systematic errors

Wednesday 31 May 2017 14:10 (20 minutes)

The goal of beam energy calibration is to define central mass energy at the interaction point (IP). The most accurate method is resonant depolarization technique with relative error of 1 ppm in single beam energy calibration. The whole procedure consists of measurement of spin precession frequency, and calculations of beam energy averaged over circumference, beam energy at IP and central mass energy. The talk is discussing errors introduced on each step of central mass energy determination.

Author: Dr BOGOMYAGKOV, Anton (Budker Institute of Nuclear Physics (RU))Presenter: Dr BOGOMYAGKOV, Anton (Budker Institute of Nuclear Physics (RU))Session Classification: FCC-ee