Contribution ID: **13** Type: **Lecture**

Beam Generation for Test Beams

Monday 20 June 2022 13:30 (45 minutes)

The lecture covers the basics of the secondary and tertiary beam generation for the test beams at CERN. It covers the basics of beam-matter interaction and summarises the processes of secondary particles production at the target stations. It introduces the Atherton parametrisation and the particle zoo available at CERN North Area. Subsequently, it covers the design of transfer beam lines, beam optics and equipment types used for beam size and divergence setup, momentum selection, collimation etc. The tools of particle type selection and enrichment are introduced, such as converters, absorbers, radiators, synchrotron radiation, pion decay and muon polarization. The presentation ends with a brief overview over the beam instrumentation utilized for test beams diagnostics.

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