Influence of timing cuts in Testbeam data and Simulation

Dissertation

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Abstract

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Zusammenfassung

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Chapter 1

Timing study on ILD detector simulation

Simulation of detector response is an essential part in high energy physics experiment. In Early stage of a project, simulations are done in order to explore and understand the possibilities of a detector design as well as its limitations. Simulation can be use as a way to determine requirements of an experiment to reach certain goals. During data-taking and afterwards, simulations are used model physics processes to compare the expected value from theory to a measured value for various processes.

In this chapter, software tools will be briefly introduced.

1.1 Detector Simulation and framework

1.1.1 Detector Simulation

1.1.2 ILCSoft framework

1.2 Reconstruction chain

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1.2.2 Calorimeter Digitization

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