CEPC Soft Web

Functions:

0、Overall Description of CEPC Physics (1 page)

1、Introduction to Detector Model & Key Physics Channels

Baseline Detector Model;

Detector: Introduction & Display of the whole Detector, and each sub-system

Physics Benchmarks:

Higgs: llH, vvH, llH->WW\*->lvqq & 4q, …

Leading SM background

ISR Return Z,

WW, ZZ

Semi-leptonics

Alternative detector models.

2、Installation and Quick Start

Objective: Start from SLC6, a fully functional Installation

3、Software general description

4、Building Blocks of Software/Samples

4.1 Generator

4.2 Fast Simulation

4.3 Mokka+ Simulation

// Easy set up and a few simulation

4.4 Data Models (Marlin + LCIO)

// Common

4.5 Druid

4.6 Reconstruction in general

4.7 Digitization ~~ VERY IMPORTANT…

4.8 Tracking

4.9 PFA & Arbor

4.10 Photons

4.11 Leptons

4.12 Taus

4.13 Jet Clustering

4.14 Jet Flavor tagging

Concrete examples:

Sub-detector/Object Performances:

Tracking Performance Analysis –

Photon Energy Resolution

Neutral Hadron Energy Resolution

PFA Level Performance

Lepton ID Plots

Separation Plot

W-Z-H Mass separation

Physics Analysis

llH, Higgs recoil mass spectrum

H->di photon Mass spectrum

H->mumu Mass spectrum

vvH, recoil Mass spectrum & Z, W fusion separations

H->WW mass spectrum