CEPC Soft Web

Functions:

0、Overall Description of CEPC Physics (1 page)

1、Introduction to Detector Model & Key Physics Channels //成栋+航+永峰；Generator – 刚 + 曼奇

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 – 曼奇 – 成栋

4、Building Blocks of Software/Samples

4.1 Generator ～～刚

4.2 Fast Simulation ～～刚

4.3 Mokka+ Simulation ～～成栋

// Easy set up and a few simulation

4.4 Data Models (Marlin + LCIO) ～ ilcsoft

// Common

4.5 Druid ～ 永峰

4.6 Reconstruction in general ～ 曼奇

4.7 Digitization ~~ VERY IMPORTANT… ～ 航 Calo

Sub detector – 志刚 – VTX

TPC – 明锐

4.8 Tracking

明锐 – ArborTracking

成栋 – ConformalTracking

明锐 ilcsoft - Clupatra

4.9 PFA & Arbor

曼奇 + 航

5、Performance -

5.0 FSClasser

刚

5.1 Photons

航

5.2 Leptons

于丹

5.3 Taus

于丹

5.4 Jet Clustering + VTX founder + Jet Flavor tagging

刚 + FastJet

Concrete examples:

Sub-detector/Object Performances:

Tracking Performance Analysis – 太范

Photon Energy Resolution – 航

Neutral Hadron Energy Resolution – 航

PFA Level Performance

Lepton ID Plots 丹

Separation Plot 航

W-Z-H Mass separation ～刘波，陪筑，永峰

Physics Analysis 浩

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

ZH->4 jet 刚