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