Gamma-2*Beta determination via Bs Oscillation at CEPC

Introduction

SM - CKM & CPV

Bs-Oscillation & Gamma (Gamma - 2*Beta) angle determination (could be extended to an independent session, App, cite…)

CEPC introduction & Characteristic

Bs Yield, Decay branching ratio, clean environments, etc

Main logic & works of this manuscript

ToC

Methodology Detector model & Software, Sample

Method: Fast Sim & Toy model (Could go 1.4)

Toy model to extract the anticipated Key distribution (Eff. Bkgrd. Resolutions): Truth Conv Eff Conv Reso.

Fit to the key distribution

Truth level distribution via generator (Whizard, etc) //Key points: interference handling?

Anticipated Accuracy V.S. Relevant Performance

Relevant Performance quantification Via Full Simulation.

Samples, etc.

Main Results:

Relevant detector performance quantification;

VTX Timing;

Event Reco. Efficiency - purity;

Jet Charge Effective Tagging power;

Establishment of the reconstucted key distribution;

Anticipated accuracies evaluation: Fit & Extraction of Gamma-2*Beta.

// CKM Fitter, comparing to LHCb projecting @ HL-LHC;

Summary

Conclusion on Gamma-2*Beta measurement

Recap of the key performance of CEPC

Compare CEPC performance with other facility, discuss its complementarity… impacts

Outlook, towards global CKM measurements at Z factory