Discussion on the WG1-SRCH final report

Second ECFA Workshop on e+e- Higgs/EW/Top Factories
October 12, 2023

WG1-SRCH Focus Topics

Three focus topics defined:

- EXscalar New exotic scalars
- LLPs Long-lived particles
- EXtt Exotic top decays

⇒ will clearly be covered in the final workshop report...

But report is not to be restricted to the focus topics !!!

A.F.Żarnecki (U. of Warsaw) EXscalar report June 27, 2023

ECFA-WG1 final report

Physics Potential of a Higgs / Top /EW Factory

All WG1 Coordinators and Subgroup Conveners Many...

Abstract

This documents summarizes the work of the Physics Potential Working Group of the ECFA Study on Future Higgs / Top / Electroweak Factories.....

Keywords

Higgs Boson, Top Quark, Electroweak Physics

1 Introduction

[Editors: F3J]

- general introduction
- mandate of the group
- physics landscape at start of Higgs factory
- overview on rest of report

General comments, notes:

- every topic should include discussion of the expected state-of-the-art at start of a Higgs factory
- work out the "added value"
- highlight cases where improved precision from Higgs factory would impact the way LHC data could be (re-)analyzed

A.F.Żarnecki (U. of Warsaw) EXscalar report June 27, 2023

WG1-SRCH contribution to the final report

In addition to the focus topics, what should we cover?

Possible candidates:

- Heavy Neutral Leptons
- Light SUSY scenarios
- Dark Matter searches

Comments, suggestions?