

First ECFA WORKSHOP.

Contribution ID: 32

Type: **Parallel session talk**

New BSM Higgs bosons: e+e- collider physics potential

Wednesday 5 October 2022 17:19 (20 minutes)

We discuss the mounting evidence for a 95 GeV Higgs boson, as well as interesting excesses in the searches for heavier Higgs bosons at ~ 400 GeV. We show how these excesses can be described in the Two Higgs Doublet Model plus real singlet (N2HDM), or in the Next-to-Minimal Supersymmetric Standard Model (NMSSM). We discuss the physics potential of future e^+e^- colliders to analyze these scenarios.

Primary authors: GROHSJEAN, Alexander (CMS (CMS Fachgruppe TOP)); SCHWANENBERGER, Christian (CMS (CMS Fachgruppe TOP)); WEIGLEIN, Georg (T (Phenomenology)); HEINEMEYER, Sven (IFCA (CSIC, Santander)); BIEKOETTER, Thomas (T (Phenomenology)); MOORTGAT-PICK, Gudrid (University of Hamburg / DESY); PAASCH, Steven (FLC (FTX Fachgruppe SLB)); LI, Cheng (FTX (FTX Fachgruppe SLB))

Presenter: HEINEMEYER, Sven (IFCA (CSIC, Santander))

Session Classification: WG1: joined HTE & SRCH session

Track Classification: WG1-HTE+SRCH - Physics Potential: Higgs, top and EW joint with FIP and direct searches