



MEETING OF THE AMERICAN PHYSICAL SOCIETY DIVISION OF PARTICLES AND FIELDS

Contribution ID: 533

Type: **Presentation**

## **Higgs-boson physics at the LHC: from discovery to precision physics.**

*Monday, 31 July 2017 10:45 (30 minutes)*

The LHC Higgs-boson physics programme is broad and challenging. The progress of experimental analyses has been matched by an unprecedented theoretical effort to describe both production and decay properties of the Standard-Model Higgs boson. In most cases the measurement of Higgs production and properties is not limited these days by theoretical systematic, but cases still exist where this is the case. In these cases, further effort to reach a more satisfactory theoretical accuracy will have to be matched by a dedicated program of experimental measurements. In this talk I will review the interplay between theory and experiments in defining a Higgs precision-physics program, and I will discuss how, when combined with global electroweak precision fits, this can be used to constrain extensions of the Standard Model.

**Primary author:** REINA, Laura (Florida State University)

**Presenter:** REINA, Laura (Florida State University)

**Session Classification:** Higgs and EWSB

**Track Classification:** Higgs and EWSB