



Contribution ID: 23

Type: **not specified**

## New Physics in Double Higgs Production

*Thursday, August 6, 2015 4:25 PM (25 minutes)*

Double Higgs production is a unique collider process, enabling the determination of the Higgs self-coupling, but is exceedingly rare in the Standard Model. I will review recent developments in the phenomenology of Higgs pair production. The double Higgs cross section may be enhanced not only by a modified Higgs self-coupling, but also by anomalous couplings involving the quarks and the Higgs, resonant enhancements, exotic decays, and new particles contributing to the loop amplitudes. Discerning between these possibilities will be central to future experimental studies, and I will discuss theoretical progress that can help guide such an investigation.

### Oral or Poster Presentation

Oral

**Primary author:** ISMAIL, Ahmed (Argonne National Laboratory/University of Illinois at Chicago)**Presenter:** ISMAIL, Ahmed (Argonne National Laboratory/University of Illinois at Chicago)**Session Classification:** EWK and Higgs Sector**Track Classification:** Electroweak and Higgs Theory