



Contribution ID: 50

Type: **not specified**

## **ATLAS Searches for VH, HH, VV, V+gamma/gammagamma Resonances**

*Wednesday, 5 April 2017 11:00 (20 minutes)*

The discovery of a Higgs boson at the Large Hadron Collider (LHC) motivates searches for physics beyond the Standard Model (SM) in channels involving coupling to the Higgs boson. A search for a massive resonance decaying into a standard model Higgs boson (h) and a W or Z boson or two a standard model Higgs bosons is performed. Final states with different number of leptons or photons and where in many cases at least one Higgs decays into a b-quark pair are studied using different jet reconstruction techniques which are complementary in their acceptance for low and high mass transverse momentum. This talk summarizes ATLAS searches for diboson resonances including at least one h boson in the final state and searches for resonant and non-resonant di-Higgs production with LHC Run 2 data.

**Primary authors:** ESCALIER, Marc (LAL-Orsay (FR)); BIESUZ, Nicolo Vladi (Universita di Pisa & INFN (IT))

**Presenter:** BIESUZ, Nicolo Vladi (Universita di Pisa & INFN (IT))

**Session Classification:** WG3 Higgs and BSM Physics in Hadron Collisions

**Track Classification:** WG3) Higgs and BSM Physics in Hadron Collisions