

## Why do we care about looking for di-Higgs production?

*Thursday, 25 October 2018 16:55 (10 minutes)*

In 2012, the LHC experiments discovered a Higgs boson-like particle, however there are still outstanding questions about the Higgs sector. Is this the Standard Model (SM) Higgs? Are there any additional Higgs bosons? Does physics Beyond the SM exist? In this talk I will explain how studying di-Higgs production can provide a unique window into these questions, as well as insight into electroweak symmetry breaking. I will also discuss the current status and future prospects of searching for di-Higgs production at ATLAS.

**Primary author:** BURCH, Tyler James (Northern Illinois University)

**Presenter:** BURCH, Tyler James (Northern Illinois University)

**Session Classification:** Young Physicists' Lightning Round Session 1