



Contribution ID: 12

Type: Young Scientist Forum

## Vacuum Stability Constraints in Models with Extended Scalar Sectors

*Friday, 26 April 2019 19:20 (10 minutes)*

Constraining physics beyond the Standard Model through theoretical constraints is highly relevant to increase the predictivity of the models for collider searches. Constraints from the stability of the electroweak vacuum are especially important in models with large scalar sectors, such as SUSY models. We developed a highly efficient and numerically reliable approach that enables the application of vacuum stability constraints in large parameter scans. Based on this approach we present our constraints and study the vacuum structure of models beyond the SM.

**Primary author:** WITTBRODT, Jonas (DESY)

**Co-authors:** HOLLIK, Wolfgang Gregor (Karlsruhe Institute of Technology, Germany); WEIGLEIN, Georg (Deutsches Elektronen-Synchrotron (DE))

**Presenter:** WITTBRODT, Jonas (DESY)

**Session Classification:** Contributed talks

**Track Classification:** Physics beyond the standard model