

## Scale invariant SUSY search with simplified topologies

*Thursday 1 October 2015 16:50 (15 minutes)*

Due to the unknown stop, sbottom and neutralino masses, very different event shapes for squark pair production are imaginable, ranging from unboosted top/bottom quarks and low missing energy to highly boosted top/bottom quarks and large missing energy in the final state. In order to cover a wide range of possible event shapes and consequently stop, sbottom, and neutralino masses, we combined several top taggers based on jet substructure techniques to obtain a scale invariant search strategy. The performance of this approach is shown in a collider study.

**Primary author:** Mr SCHLAFFER, Matthias (DESY)

**Presenter:** Mr SCHLAFFER, Matthias (DESY)

**Session Classification:** Particle Phenomenology