Contribution ID: 44 Type: **not specified** 

## Electroweak and QCD corrections with MadGraph5\_aMC@NLO: top quark pair production in association with heavy bosons (15+5min)

Thursday 3 September 2015 12:30 (20 minutes)

I will first review the status of the perturbative computations with QCD and electroweak corrections in the MadGraph5\_aMC@NLO framework. Then, I will focus on its first phenomenological application to top quark pair associated production with a Higgs/Z/W boson at next-to-leading order QCD and electroweak accuracy. As a by product, I also present some preliminary results for the top quark pair production at the complete one-loop level, i.e. including  $\alpha_s^n \alpha^m (n+m=3)$  corrections.

Author: SHAO, Huasheng (CERN)

**Presenter:** SHAO, Huasheng (CERN) **Session Classification:** Hard QCD

Track Classification: Hard QCD