

Also on: https://docs.google.com/document/d/1ESM6Z3OhEcv9z1oq6lCPanfvdEi5n_7oVcDnwFb5-8M/edit

2016-10-24 - ATLAS/CMS Monotop discussion

Following the slides by Benedikt:

[161025_monotop_parameters.pdf](#)

Two available models:

- Spin-0, resonant model
 - Parameters already agreed upon in DMF:
 $a_q = b_q = 0.1$, $a_{SR(1/2)} = b_{SR(1/2)} = 0.2$
 - CMS will perform a reweighting of the coupling
- Spin-1, non-resonant (FCNC) model
 - Model evolved from the version in the common repository, and has a newest version implemented in DMSimp (NLO)
 - This model is the monojet spin-1 model, with flavour changing parameters added (16-19 in parameter card)
 - It should be specified in summary plots that no mixing with monojet is considered yet (i.e. the monojet curve would change if these parameters were turned on)
 - Agreement to use this version between the two collaborations
 - Parameters:

- $V=0.25, A=0$ $V=0, A=0.25$ $V+A=0.25/2$
- Maintain gauge invariance: $gVu-gAu=gVd-gAd$

News: DMSimp has a vector/axial vector with monotop interactions added:

<http://feynrules.irmp.ucl.ac.be/wiki/DMSimp>

*2016.10.27 - v2.1 - included the monotop interactions (B. Fuks).

Action items:

- CMS analysers check whether the resonant model they are using correspond to that in the repository
- ATLAS/CMS analysers pick one mass/coupling point for each signal (priority: spin-1) and send the cross-section to DMWG admins for adding to the group's SVN