Weekly

Maosen Zhou

IHEP

April 3, 2017

- Updated Note to v0.2, most comments on CDS are implemented;
- Most systematic samples are ready, except serveral signal DSIDs running + some background DSIDs missing.

N_{jet} division-signal contamination

All mass points assume 1 pb for $pp \rightarrow hh$, $\int L dt = 36.5 fb^{-1}$

	X260	X300	X400	X500	Non-resonant
Applying mX260 selections	0.255±0.018	0.339±0.021	0.312±0.025	0.275±0.029	0.284±0.020
Applying mX300 selections	0.263±0.018	0.364±0.022	0.361±0.027	0.355±0.031	0.327±0.021
Applying mX400 selections	0.065±0.010	0.160±0.014	0.668±0.041	0.990±0.041	0.708±0.029
Applying mX500 selections	0.000±0.000	0.020±0.005	0.281±0.026	0.664±0.034	0.440±0.019
Applying non-resonant selections	0.000±0.000	0.019±0.004	0.280±0.026	0.663±0.034	0.439±0.020

Table: The signal contamination for each mass point in *ee* channel.

N_{jet} division-signal contamination

	X260	X300	X400	X500	Non-resonant
Applying mX260 selections	0.551±0.028	0.563±0.032	0.327±0.023	0.214±0.016	0.286±0.022
Applying mX300 selections	0.735±0.031	1.263±0.050	1.146±0.044	0.888±0.036	0.984±0.037
Applying mX400 selections	0.142±0.015	0.418±0.032	1.387±0.052	2.144±0.057	1.652±0.048
Applying mX500 selections	0.007±0.003	0.079±0.012	0.809±0.039	1.762±0.052	1.226±0.041
Applying non-resonant selections	0.005±0.002	0.058±0.011	0.668±0.034	1.622±0.050	1.201±0.040

Table: The signal contamination for each mass point in $\mu\mu$ channel.

N_{jet} division-signal contamination

	X260	X300	X400	X500	Non-resonant
Applying mX260 selections	0.765±0.031	0.827±0.035	0.560±0.032	0.352±0.021	0.443±0.023
Applying mX300 selections	0.964±0.034	1.463±0.048	1.436±0.049	1.167±0.039	1.258±0.043
Applying mX400 selections	0.250±0.020	0.627±0.033	2.030±0.063	2.658±0.062	2.066±0.066
Applying mX500 selections	0.015±0.005	0.118±0.012	1.150±0.047	2.347±0.059	1.588±0.061
Applying non-resonant selections	0.007±0.003	0.063±0.009	0.808±0.040	1.938±0.052	1.420±0.057

Table: The signal contamination for each mass point in $e\mu$ channel.

Discussion & Ongoing

So, should we concern about the signal contamination?

- Updating results with v27 NTuples;
- Systematic results.

Back up