

Table 1: Comparison of median expected upper limit on signal strength for various configurations. Left column gives the software used with a few informations about the configuration: number of pseudo experiments, type of interpolation/extrapolation and constraint term for statistical uncertainties (for CLsGenerator).

	Sgluon 350	Sgluon 400	Sgluon 500	Sgluon 600	Sgluon 800	Sgluon 1000	Sgluon 1250
mclimit (50000 exps)	0.00344 ($\simeq 4000$ sec)	0.00538 ($\simeq 4000$ sec)	0.0142	0.0326	0.214	1.48	13.2
CLsGen (50000 exps) (mclimit, normal)	0.0034 (-1.23%) (35.8 sec)	0.00534 (-0.758%) (48.4 sec)	0.0142 (-0.201%) (35.4 sec)	0.0329 (0.825%) (22.4 sec)	0.216 (0.827%) (19.1 sec)	1.46 (-1.57%) (9.55 sec)	13.1 (-0.596%) (19.8 sec)
CLsGen (50000 exps) (mclimit, logN)	0.00334 (-2.89%) (51.1 sec)	0.00529 (-1.64%) (53.3 sec)	0.0139 (-2.09%) (43.5 sec)	0.032 (-1.76%) (35.8 sec)	0.212 (-0.938%) (28.3 sec)	1.47 (-0.926%) (21.8 sec)	13.1 (-0.652%) (29.1 sec)
CLsGen (50000 exps) (linear, normal)	0.00344 (-0.0627%) (26.6 sec)	0.00539 (0.169%) (30.9 sec)	0.0143 (0.532%) (32.3 sec)	0.0329 (0.82%) (24.1 sec)	0.215 (0.292%) (19.8 sec)	1.48 (0.273%) (17.2 sec)	13.3 (0.582%) (18.1 sec)
CLsGen (50000 exps) (linear, logN)	0.00335 (-2.47%) (42.1 sec)	0.00531 (-1.31%) (40.1 sec)	0.0139 (-2.32%) (39 sec)	0.0323 (-0.992%) (35.7 sec)	0.214 (0.208%) (28.2 sec)	1.45 (-1.85%) (19.8 sec)	13 (-1.3%) (34.5 sec)
CLsGen (50000 exps) (polyexpo, normal)	0.00348 (1.13%) (105 sec)	0.00549 (1.98%) (76.1 sec)	0.0143 (0.765%) (83.6 sec)	0.0331 (1.44%) (47.7 sec)	0.218 (1.87%) (55.4 sec)	1.49 (0.443%) (34.2 sec)	13.4 (1.67%) (41.6 sec)
CLsGen (50000 exps) (polyexpo, logN)	0.00336 (-2.47%) (94.7 sec)	0.00535 (-0.605%) (81.8 sec)	0.014 (-1.2%) (96 sec)	0.0321 (-1.55%) (58.4 sec)	0.214 (0.115%) (37.5 sec)	1.43 (-3.4%) (22 sec)	13 (-1.18%) (80.5 sec)
bayesian (HistFactory model)	0.0035	0.00562	0.0144	0.033	0.228	1.55	14.6
bayesian (CLsGen model)	0.00344584	0.00527753	0.0141423	0.0349223	0.21063	1.4005	12.131

Table 2: Limits for sgluon.

	Sgluon 350	Sgluon 400	Sgluon 500	Sgluon 600	Sgluon 800	Sgluon 1000	Sgluon 1250
-2σ	1.46488e-05	0.00324122	0.00442314	0.0131012	0.030986	0.246768	0.408052
-1σ	0.000932881	0.000993046	0.00647419	0.00380584	0.0960784	0.877566	3.88526
median	0.00255172	0.0047802	0.020576	0.0156165	0.183767	0.945626	10.0412
$+1\sigma$	0.00384199	0.00730197	0.0208971	0.0352438	0.221556	1.88999	18.9986
$+2\sigma$	0.0064509	0.00963706	0.026308	0.0338572	0.435087	1.99976	26.8638
observed	0.00190055	0.00294514	0.0159842	0.00781195	0.250094	1.12148	7.56043

Table 3: Median expected upper limit on signal strength for CI and SM 4top. Numbers between parenthesis are limits without uncertainties.

	cat0	cat1	cat2	cat3	cat4	all
CI	10.6 (8.27)	4.31 (4.01)	2.88 (2.71)	1.12 (0.978)	0.42 (0.37)	0.377 (0.318)
SM	394 (316)	140 (130)	225 (204)	101 (87.2)	34.7 (31.1)	30.7 (25.8)

Table 4: Median expected upper limit on signal strength for sgluon. Numbers between parenthesis are limits without uncertainties.

	cat0	cat1	cat2	cat3	cat4	all
350 GeV	0.0153 (0.0121)	0.00438 (0.00404)	0.0234 (0.0217)	0.0316 (0.0271)	0.00708 (0.00607)	0.00346 (0.0028)
450 GeV	0.0283 (0.0226)	0.00826 (0.00766)	0.0375 (0.0357)	0.0361 (0.0312)	0.0087 (0.00746)	0.00539 (0.00444)
500 GeV	0.151 (0.118)	0.0486 (0.0441)	0.0912 (0.0814)	0.057 (0.0488)	0.0164 (0.0143)	0.0143 (0.0118)
600 GeV	1.16 (0.839)	0.29 (0.246)	0.263 (0.245)	0.126 (0.108)	0.0356 (0.031)	0.0328 (0.028)
800 GeV	35 (19.7)	16.8 (13.6)	2.7 (2.56)	0.659 (0.592)	0.24 (0.209)	0.215 (0.186)
1000 GeV	2.78e+03 (1.11e+03)	1.2e+03 (460)	20.8 (18.5)	3.97 (3.5)	1.7 (1.5)	1.48 (1.26)
1250 GeV	8.52e+04 (2.61e+04)	6.77e+03 (3e+03)	285 (254)	31.4 (27.9)	15.8 (14)	13.3 (11.7)