

# **FASE update**

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# First Large Simulations



```
sigtot index      0
0.000000000+00 0.100000000+01 0.76971893D-01 0.62029285D-03

# sigfaserv index      1
0.000000000+00 0.100000000+01 0.32440286D-01 0.92191428D-03

# Q index      2
0.000000000+00 0.500000000+00 0.000000000-00 0.000000000+00
0.500000000+00 0.100000000+01 0.000000000+00 0.000000000+00
0.100000000+01 0.150000000+01 0.17959105D-04 0.39991504D-05
0.150000000+01 0.200000000+01 0.43127886D-02 0.69137523D-04
0.200000000+01 0.250000000+01 0.55322048D-01 0.24934532D-03
0.250000000+01 0.300000000+01 0.71237361D-01 0.27524269D-03
0.300000000+01 0.350000000+01 0.86556676D-01 0.29982704D-03
0.350000000+01 0.400000000+01 0.10127692D-00 0.31460982D-03
0.400000000+01 0.450000000+01 0.11357360D-00 0.32713747D-03
0.450000000+01 0.500000000+01 0.12670810D-00 0.34122693D-03
0.500000000+01 0.550000000+01 0.13722524D-00 0.35203589D-03
0.550000000+01 0.600000000+01 0.14736190D-00 0.36208017D-03
0.600000000+01 0.650000000+01 0.15657937D-00 0.36982938D-03
0.650000000+01 0.700000000+01 0.16419164D-00 0.37734942D-03
0.700000000+01 0.750000000+01 0.17140988D-00 0.38311805D-03
0.750000000+01 0.800000000+01 0.17797758D-00 0.38881077D-03
0.800000000+01 0.850000000+01 0.18256822D-00 0.39229507D-03
0.850000000+01 0.900000000+01 0.18659176D-00 0.39549817D-03
0.900000000+01 0.950000000+01 0.18858622D-00 0.39655043D-03
0.950000000+01 0.100000000+02 0.19213619D-00 0.39921446D-03
0.100000000+02 0.105000000+02 0.19340668D-00 0.40002742D-03
0.105000000+02 0.110000000+02 0.19341222D-00 0.39924515D-03
0.110000000+02 0.115000000+02 0.19351566D-00 0.39871111D-03
0.115000000+02 0.120000000+02 0.19134345D-00 0.39590619D-03
0.120000000+02 0.125000000+02 0.19031791D-00 0.39497202D-03
0.125000000+02 0.130000000+02 0.18733082D-00 0.39149338D-03
0.130000000+02 0.135000000+02 0.18521712D-00 0.38845040D-03
0.135000000+02 0.140000000+02 0.18054614D-00 0.38339142D-03
0.140000000+02 0.145000000+02 0.17672463D-00 0.37926107D-03
0.145000000+02 0.150000000+02 0.17228012D-00 0.37416317D-03
0.150000000+02 0.155000000+02 0.16709989D-00 0.36840715D-03
0.155000000+02 0.160000000+02 0.16142370D-00 0.36200819D-03
0.160000000+02 0.165000000+02 0.15533970D-00 0.35507454D-03
0.165000000+02 0.170000000+02 0.14913225D-00 0.34792988D-03
0.170000000+02 0.175000000+02 0.14348780D-00 0.34125234D-03
0.175000000+02 0.180000000+02 0.13597347D-00 0.33215223D-03
0.180000000+02 0.185000000+02 0.12816134D-00 0.32200151D-03
0.185000000+02 0.190000000+02 0.12192181D-00 0.31460870D-03
0.190000000+02 0.195000000+02 0.11409652D-00 0.30437537D-03
0.195000000+02 0.200000000+02 0.10736763D-00 0.29527667D-03

# Q2 index      3
0.100000000+01 0.503750000+02 0.12130617D-01 0.10393259D-04
0.503750000+02 0.997500000+02 0.10751741D-01 0.93147737D-05
0.997500000+02 0.149125000+03 0.86847466D-02 0.83318045D-05
0.149125000+03 0.198500000+03 0.70333885D-02 0.75046824D-05
0.198500000+03 0.247875000+03 0.57124905D-02 0.67719056D-05
0.247875000+03 0.297250000+03 0.46227649D-02 0.61065499D-05
0.297250000+03 0.346625000+03 0.37150446D-02 0.54871777D-05
0.346625000+03 0.396000000+03 0.29670006D-02 0.49119266D-05
0.396000000+03 0.445375000+03 0.23529758D-02 0.43828893D-05
0.445375000+03 0.494750000+03 0.18624490D-02 0.39036129D-05
0.494750000+03 0.544125000+03 0.14551387D-02 0.34544214D-05
0.544125000+03 0.593500000+03 0.11312172D-02 0.30487233D-05
0.593500000+03 0.642875000+03 0.86874685D-03 0.26735129D-05
0.642875000+03 0.692250000+03 0.66009942D-03 0.23318115D-05
0.692250000+03 0.741625000+03 0.49325049D-03 0.20166863D-05
0.741625000+03 0.791000000+03 0.36644236D-03 0.17392987D-05
0.791000000+03 0.840375000+03 0.27123603D-03 0.14965077D-05
"pwgPOWHEG+PYTHIA8-output-11.top" 1746L, 100944B
```

NLO numu-n

100GeV

10 M events

Now running:

NLO-nue-n

NLO-numu-p

LO-nue-n

LO-nue-p

```
-- Schedd: taai-007.nikhef.nl : <145.107.7.246:9618?... @ 11/24/25 11:01:03
OWNER  BATCH_NAME      SUBMITTED   DONE    RUN    IDLE  TOTAL  JOB_IDS
psainz ID: 3427792    11/24 10:58      -      -      1      1 3427792.0
psainz ID: 3427793    11/24 10:59      -      -      1      1 3427793.0
psainz ID: 3427794    11/24 11:00      -      -      1      1 3427794.0
psainz ID: 3427795    11/24 11:00      -      -      1      1 3427795.0

Total for query: 4 jobs; 0 completed, 0 removed, 4 idle, 0 running, 0 held, 0 suspended
Total for psainz: 4 jobs; 0 completed, 0 removed, 4 idle, 0 running, 0 held, 0 suspended
Total for all users: 12968 jobs; 0 completed, 0 removed, 9310 idle, 3330 running, 328 held, 0 suspended
```

# Up Next

- More simulations
- Learning how to plot
- Reading theory