

| MoG model with $d = 100$, $q = 10$, and $n = m = 10^4$ | | | | | | |
|--|---|---|-------------|---|---|------------|
| Statistic | μ -deformation | | | Σ_{ii} -deformation | | |
| | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) |
| t_{SW} | $0.09504^{+0.024}_{-0.028}$ | $0.12338^{+0.023}_{-0.024}$ | 648 | $0.03044^{+0.0066}_{-0.0084}$ | $0.03963^{+0.0061}_{-0.0067}$ | 711 |
| $t_{\overline{KS}}$ | $0.00787^{+0.0031}_{-0.0029}$ | $0.01207^{+0.0034}_{-0.0032}$ | 1244 | $0.00217^{+0.0011}_{-0.00099}$ | $0.00375^{+0.0011}_{-0.0012}$ | 1389 |
| t_{SKS} | $0.07672^{+0.018}_{-0.021}$ | $0.10153^{+0.016}_{-0.018}$ | 688 | $0.02687^{+0.0041}_{-0.0056}$ | $0.0345^{+0.0036}_{-0.004}$ | 736 |
| t_{FGD} | $0.13134^{+0.032}_{-0.034}$ | $0.16599^{+0.028}_{-0.028}$ | 2715 | $0.04142^{+0.0081}_{-0.01}$ | $0.05232^{+0.0067}_{-0.0074}$ | 2955 |
| t_{MMD} | $0.10962^{+0.028}_{-0.035}$ | $0.14183^{+0.023}_{-0.026}$ | 1350 | $0.02117^{+0.007}_{-0.0078}$ | $0.02757^{+0.0062}_{-0.0064}$ | 1536 |
| t_{NPLM} | $0.01022^{+0.003}_{-0.0039}$ | $0.01227^{+0.0027}_{-0.0031}$ | 3690 | $0.00333^{+0.00099}_{-0.0013}$ | $0.00399^{+0.00089}_{-0.001}$ | 4008 |
| t_{NPLM} | $0.00774^{+0.0022}_{-0.0031}$ | $0.00913^{+0.002}_{-0.0024}$ | 35112 | $0.00249^{+0.00076}_{-0.001}$ | $0.00296^{+0.00067}_{-0.00081}$ | 40089 |
| t_{LLR} | $9e - 05^{+6e-05}_{-6e-05}$ | $0.00012^{+6e-05}_{-6e-05}$ | 3225 | $2e - 05^{+1e-05}_{-1e-05}$ | $2e - 05^{+2e-05}_{-1e-05}$ | 3499 |
| Statistic | $\Sigma_{i \neq j}$ -deformation | | | pow ₊ -deformation | | |
| | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) |
| t_{SW} | $0.05622^{+0.011}_{-0.015}$ | $0.07365^{+0.0088}_{-0.011}$ | 3594 | $0.01206^{+0.0028}_{-0.0033}$ | $0.01579^{+0.0023}_{-0.0028}$ | 730 |
| $t_{\overline{KS}}$ | $1.00157^{+0.00038}_{-0.00012}$ | $1.00402^{+0.00037}_{-0.0018}$ | 10395 | $0.00084^{+0.00043}_{-0.00041}$ | $0.00144^{+0.00041}_{-0.00045}$ | 1467 |
| t_{SKS} | $0.0607^{+0.013}_{-0.015}$ | $0.07996^{+0.011}_{-0.013}$ | 4297 | $0.01088^{+0.0016}_{-0.0021}$ | $0.0139^{+0.0013}_{-0.0015}$ | 773 |
| t_{FGD} | $0.00958^{+0.0021}_{-0.0026}$ | $0.01249^{+0.0018}_{-0.0019}$ | 7784 | $0.01638^{+0.0032}_{-0.0039}$ | $0.02069^{+0.0027}_{-0.003}$ | 2488 |
| t_{MMD} | $0.03968^{+0.01}_{-0.012}$ | $0.05143^{+0.0089}_{-0.0095}$ | 5795 | $0.00761^{+0.0026}_{-0.0028}$ | $0.00988^{+0.0023}_{-0.0023}$ | 1238 |
| t_{NPLM} | $0.00559^{+0.0022}_{-0.0025}$ | $0.00712^{+0.002}_{-0.0021}$ | 9175 | $0.00126^{+0.00038}_{-0.00049}$ | $0.00152^{+0.00034}_{-0.0004}$ | 3952 |
| t_{NPLM} | $0.00952^{+0.0054}_{-0.0058}$ | $0.01297^{+0.0053}_{-0.0055}$ | 39783 | $0.00096^{+0.0003}_{-0.00039}$ | $0.00115^{+0.00025}_{-0.00032}$ | 45051 |
| t_{LLR} | - | - | - | $1e - 05^{+0}_{-1e-05}$ | $1e - 05^{+0}_{-1e-05}$ | 3842 |
| Statistic | pow ₋ -deformation | | | \mathcal{N} -deformation | | |
| | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) |
| t_{SW} | $0.01253^{+5}_{-0.0032}$ | $0.0164^{+5}_{-0.0026}$ | 653 | $0.32495^{+0.033}_{-0.046}$ | $0.37663^{+0.025}_{-0.032}$ | 617 |
| $t_{\overline{KS}}$ | $0.00086^{+0.00044}_{-0.00043}$ | $0.00147^{+0.00042}_{-0.00047}$ | 1542 | $0.02563^{+0.0081}_{-0.0097}$ | $0.03668^{+0.0078}_{-0.008}$ | 652 |
| t_{SKS} | $0.01077^{+0.0016}_{-0.0021}$ | $0.01376^{+0.0013}_{-0.0015}$ | 786 | $0.27956^{+0.034}_{-0.043}$ | $0.32856^{+0.027}_{-0.033}$ | 657 |
| t_{FGD} | $0.01685^{+0.0032}_{-0.0038}$ | $0.02139^{+0.0026}_{-0.0032}$ | 3221 | $0.28803^{+0.027}_{-0.038}$ | $0.32529^{+0.021}_{-0.025}$ | 2636 |
| t_{MMD} | $0.00834^{+0.0023}_{-0.0025}$ | $0.01083^{+0.002}_{-0.0021}$ | 1257 | $1.17867^{+0.13}_{-0.19}$ | $1.33971^{+0.09}_{-0.12}$ | 731 |
| t_{NPLM} | $0.00132^{+0.00037}_{-0.00048}$ | $0.00158^{+0.00033}_{-0.00038}$ | 3821 | $0.21286^{+0.054}_{-0.073}$ | $0.25257^{+0.053}_{-0.056}$ | 2901 |
| t_{NPLM} | $0.00104^{+0.00028}_{-0.00038}$ | $0.00122^{+0.00024}_{-0.0003}$ | 42976 | $0.10372^{+0.025}_{-0.036}$ | $0.12089^{+0.021}_{-0.03}$ | 29642 |
| t_{LLR} | $1e - 05^{+0}_{-1e-05}$ | $1e - 05^{+0}_{-1e-05}$ | 4903 | - | - | - |
| Statistic | \mathcal{U} -deformation | | | Timing | | |
| | $\epsilon_{95\%CL}$ | $\epsilon_{99\%CL}$ | t (s) | t^{null} (s) | | |
| t_{SW} | $0.56347^{+0.054}_{-0.083}$ | $0.65308^{+0.044}_{-0.056}$ | 588 | 285 | | |
| $t_{\overline{KS}}$ | $0.03885^{+0.012}_{-0.015}$ | $0.0555^{+0.011}_{-0.012}$ | 644 | 511 | | |
| t_{SKS} | $0.48383^{+0.061}_{-0.074}$ | $0.56865^{+0.048}_{-0.057}$ | 631 | 456 | | |
| t_{FGD} | $0.49924^{+0.046}_{-0.066}$ | $0.56381^{+0.036}_{-0.047}$ | 2515 | 3225 | | |
| t_{MMD} | $2.02548^{+0.23}_{-0.32}$ | $2.31727^{+0.16}_{-0.2}$ | 1113 | 665 | | |
| t_{NPLM} | $0.37095^{+0.096}_{-0.13}$ | $0.43272^{+0.082}_{-0.094}$ | 2769 | 5141 | | |
| t_{NPLM} | $0.18018^{+0.045}_{-0.065}$ | $0.20795^{+0.038}_{-0.047}$ | 28353 | 56341 | | |
| t_{LLR} | - | - | - | - | | |