**MoG model with d = 5, q = 3, and n = m = 5 · 10⁴**

| | $\mu$-deformation | | | $\Sigma_{ii}$-deformation | | |
|---|---|---|---|---|---|---|
| Statistic | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) |
| $t_{\mathrm{SW}}$ | $0.03867^{+0.015}_{-0.015}$ | $0.05335^{+0.015}_{-0.015}$ | 1312 | $0.01366^{+0.0039}_{-0.0044}$ | $0.01898^{+0.0035}_{-0.0039}$ | 1415 |
| $t_{\overline{\mathrm{KS}}}$ | $\mathbf{0.002^{+0.00077}_{-0.00083}}$ | $\mathbf{0.00277^{+0.00075}_{-0.00076}}$ | **1308** | $\mathbf{0.00121^{+0.00032}_{-0.00039}}$ | $\mathbf{0.00157^{+0.00031}_{-0.00033}}$ | **1315** |
| $t_{\mathrm{SKS}}$ | $0.02325^{+0.0079}_{-0.0085}$ | $0.03165^{+0.0076}_{-0.0076}$ | 1439 | $0.00731^{+0.0018}_{-0.0022}$ | $0.00993^{+0.0015}_{-0.0017}$ | 1539 |
| $t_{\mathrm{FGD}}$ | $0.04381^{+0.026}_{-0.019}$ | $0.06082^{+0.024}_{-0.018}$ | 1536 | $0.0147^{+0.004}_{-0.0043}$ | $0.02005^{+0.0035}_{-0.0035}$ | 1610 |
| $t_{\mathrm{MMD}}$ | $0.02669^{+0.014}_{-0.011}$ | $0.03545^{+0.014}_{-0.011}$ | 8990 | $0.00629^{+0.0031}_{-0.0025}$ | $0.00833^{+0.0029}_{-0.0023}$ | 9570 |
| $t_{\mathrm{LLR}}$ | $0.00036^{+0.00019}_{-0.0002}$ | $0.0005^{+0.0002}_{-0.0002}$ | 2776 | $0.00011^{+7e-05}_{-8e-05}$ | $0.00016^{+8e-05}_{-8e-05}$ | 3063 |

| | $\Sigma_{i\neq j}$-deformation | | | pow$_+$-deformation | | |
|---|---|---|---|---|---|---|
| Statistic | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) |
| $t_{\mathrm{SW}}$ | $0.02657^{+0.0058}_{-0.0077}$ | $0.03639^{+0.005}_{-0.0059}$ | 1508 | $0.00841^{+0.0024}_{-0.0028}$ | $0.01169^{+0.0022}_{-0.0023}$ | 1462 |
| $t_{\overline{\mathrm{KS}}}$ | $1.00116^{+0.00055}_{-6e-05}$ | $1.00165^{+0.00018}_{-0.00025}$ | **1404** | $\mathbf{0.00142^{+0.00043}_{-0.00049}}$ | $\mathbf{0.00189^{+0.00041}_{-0.00043}}$ | **1326** |
| $t_{\mathrm{SKS}}$ | $0.02533^{+0.0073}_{-0.0088}$ | $0.03416^{+0.0062}_{-0.0074}$ | 1630 | $0.00467^{+0.001}_{-0.0013}$ | $0.0063^{+0.00088}_{-0.001}$ | 1552 |
| $t_{\mathrm{FGD}}$ | $\mathbf{0.01034^{+0.0023}_{-0.0025}}$ | $\mathbf{0.01443^{+0.0017}_{-0.0022}}$ | 2060 | $0.0089^{+0.0026}_{-0.0027}$ | $0.01216^{+0.0023}_{-0.0023}$ | 1790 |
| $t_{\mathrm{MMD}}$ | $0.02201^{+0.0099}_{-0.0084}$ | $0.02908^{+0.0094}_{-0.0079}$ | 9396 | $0.00361^{+0.0019}_{-0.0014}$ | $0.00478^{+0.0018}_{-0.0014}$ | 9705 |
| $t_{\mathrm{LLR}}$ | - | - | - | $0.00017^{+0.0001}_{-9e-05}$ | $0.00025^{+0.0001}_{-0.0001}$ | 2854 |

| | pow$_-$-deformation | | | $\mathcal{N}$-deformation | | |
|---|---|---|---|---|---|---|
| Statistic | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) |
| $t_{\mathrm{SW}}$ | $0.00858^{+0.0024}_{-0.0029}$ | $0.01188^{+0.0023}_{-0.0024}$ | 1466 | $0.16467^{+0.02}_{-0.029}$ | $0.19494^{+0.015}_{-0.019}$ | **1187** |
| $t_{\overline{\mathrm{KS}}}$ | $\mathbf{0.00142^{+0.00045}_{-0.0005}}$ | $\mathbf{0.00188^{+0.00042}_{-0.00044}}$ | **1320** | $\mathbf{0.00546^{+0.00092}_{-0.0012}}$ | $\mathbf{0.00651^{+0.00087}_{-0.0009}}$ | 1226 |
| $t_{\mathrm{SKS}}$ | $0.0048^{+0.001}_{-0.0014}$ | $0.00642^{+0.001}_{-0.0011}$ | 1562 | $0.11614^{+0.016}_{-0.024}$ | $0.1371^{+0.013}_{-0.017}$ | 1321 |
| $t_{\mathrm{FGD}}$ | $0.0091^{+0.0025}_{-0.0026}$ | $0.01247^{+0.0022}_{-0.0022}$ | 1789 | $0.1925^{+0.019}_{-0.027}$ | $0.22617^{+0.014}_{-0.016}$ | 1452 |
| $t_{\mathrm{MMD}}$ | $0.00374^{+0.0019}_{-0.0016}$ | $0.00492^{+0.0019}_{-0.0015}$ | 9724 | $0.25293^{+0.036}_{-0.048}$ | $0.28868^{+0.032}_{-0.032}$ | 8612 |
| $t_{\mathrm{LLR}}$ | $0.00018^{+0.0001}_{-0.0001}$ | $0.00025^{+0.0001}_{-0.0001}$ | 2850 | - | - | - |

| | $\mathcal{U}$-deformation | | | Timing | |
|---|---|---|---|---|---|
| Statistic | $\epsilon_{95\%\mathrm{CL}}$ | $\epsilon_{99\%\mathrm{CL}}$ | $t$ (s) | $t^{\mathrm{null}}$ (s) | |
| $t_{\mathrm{FGD}}$ | $0.33191^{+0.034}_{-0.044}$ | $0.39255^{+0.022}_{-0.028}$ | 1433 | 1150 | |
| $t_{\mathrm{LLR}}$ | - | - | - | - | |
| $t_{\mathrm{MMD}}$ | $0.43535^{+0.067}_{-0.079}$ | $0.5005^{+0.054}_{-0.057}$ | 7010 | 13839 | |
| $t_{\mathrm{SKS}}$ | $0.19824^{+0.029}_{-0.04}$ | $0.23402^{+0.023}_{-0.029}$ | 1271 | 484 | |
| $t_{\mathrm{SW}}$ | $0.28418^{+0.035}_{-0.05}$ | $0.33591^{+0.027}_{-0.033}$ | 1344 | 319 | |
| $t_{\overline{\mathrm{KS}}}$ | $\mathbf{0.00924^{+0.0015}_{-0.0019}}$ | $\mathbf{0.01096^{+0.0013}_{-0.0015}}$ | **1208** | **49** | |