$\textbf{MoG model with d=5, q=3, and n=m=2\cdot10^4}$						
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$ \begin{array}{c} 0.06429^{+0.021}_{-0.021} \\ \textbf{0.00323}^{+0.0012}_{-0.0013} \\ 0.03829^{+0.013}_{-0.013} \\ 0.07491^{+0.041}_{-0.029} \\ 0.04409^{+0.023}_{-0.016} \\ 0.00054^{+0.00031}_{-0.00031} \end{array} $	$\begin{array}{c} 0.08858^{+0.021}_{-0.02} \\ 0.00453^{+0.0011}_{-0.0012} \\ 0.05211^{+0.013}_{-0.012} \end{array}$	1309	$0.02167^{+0.0065}_{-0.0076}$	$0.03029^{+0.0061}_{-0.0067}$	1429
$t_{\overline{ ext{KS}}}$	$0.00323^{+0.0012}_{-0.0013}$	$0.00453^{+0.0011}_{-0.0012}$	1306	$\begin{array}{c} \textbf{0.00167} = 0.0076 \\ \textbf{0.00187} = 0.00049 \\ \textbf{0.00184} = 0.00058 \\ 0.01144 = 0.0035 \\ 0.02357 = 0.007 \\ 0.01045 = 0.0036 \\ 0.0036 $	$\begin{array}{c} \textbf{0.00247} & \textbf{0.000444} \\ \textbf{0.00247} & \textbf{-0.000449} \\ \textbf{0.01578} & \textbf{-0.0026} \\ \textbf{0.03187} & \textbf{-0.0026} \\ \textbf{0.01406} & \textbf{-0.0033} \\ \textbf{0.01406} & \textbf{-0.0033} \\ \textbf{0.00037} & \textbf{-0.0012} \end{array}$	1364
$t_{ m SKS}$	$0.03829^{+0.013}_{-0.013}$	$0.05211_{-0.012}^{+0.013}$	1567	$0.01144^{+0.0027}_{-0.0035}$	$0.01578^{+0.0024}_{-0.0026}$	1687
$t_{ m FGD}$	$0.07491^{+0.041}_{-0.029}$	0 10000±11139	1266	$0.02357^{+0.0063}_{-0.007}$	$0.03187^{+0.0055}_{-0.0054}$	1324
$t_{ m MMD}$	$0.04409^{+0.023}_{-0.016}$	$0.05957^{+0.022}_{-0.016}$	1908	$0.01045^{+0.0043}_{-0.0036}$	$0.01406^{+0.004}_{-0.0033}$	2122
$t_{ m LLR}$	$0.00054^{+0.00031}_{-0.00031}$	$\begin{array}{c} 0.10089^{+0.038}_{-0.028} \\ 0.05957^{+0.022}_{-0.016} \\ 0.00074^{+0.00031}_{-0.00031} \end{array}$	3525	$0.00017^{+0.00012}_{-0.00013}$	$0.00025^{+0.00012}_{-0.00012}$	3833
$\Sigma_{i \neq j}$ -deformation			pow_+ -deformation			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.04196^{+0.01}_{-0.013}$	$0.05788^{+0.0086}_{-0.0098}$	1424	$0.01344^{+0.0038}_{-0.0045}$	$0.01867^{+0.0035}_{-0.0038}$	1457
$t_{\overline{ ext{KS}}}$	$1.0022_{-0.00086}^{+0.00012}$	$1.00256^{+0.00025}_{-0.0003}$	1435	$0.00225^{+0.00067}_{-0.00076}$	$0.00301^{+0.00069}_{-0.00066}$	1387
$t_{ m SKS}$	$0.04004^{+0.012}_{-0.015}$	$0.05432^{+0.011}_{-0.013}$ $0.02285^{+0.0041}_{-0.0037}$	1654	$0.00744^{+0.0016}_{-0.0021}$	$0.01008^{+0.0014}_{-0.0015}$	1731
$t_{ m FGD}$	$0.01634^{+0.0042}$	$0.02285^{+0.0041}_{-0.0037}$	1797	$0.01441^{+0.0041}_{-0.0041}$	$0.01943^{+0.0036}_{-0.0032}$	1379
$t_{ m MMD}$	$0.03119^{+0.015}_{-0.014}$	$0.04401^{+0.013}_{-0.012}$	2310	$0.00603^{+0.0027}_{-0.0021}$	$0.00804^{+0.0025}_{-0.002}$	2103
$t_{ m LLR}$	-	-	_	$ \begin{array}{c} 0.01441_{-0.004_{1}} \\ 0.00603_{-0.0021}^{+0.0027} \\ 0.00029_{-0.00016}^{+0.00016} \end{array} $	$\begin{array}{c} -0.0033 \\ 0.00804^{+0.0025}_{-0.002} \\ 0.00039^{+0.00017}_{-0.00016} \end{array}$	3512
$pow\deformation$				$\mathcal{N} ext{-deformation}$		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.01322^{+0.0042}_{-0.0048}$	$0.01865^{+0.0038}_{-0.0041}$ $0.003^{+0.00065}_{-0.0007}$ $0.00984^{+0.0017}_{-0.0019}$	1443	$0.21144^{+0.028}_{-0.04}$	$0.25259^{+0.02}_{-0.027}$	1202
$t_{\overline{ ext{KS}}}$	$0.00223^{+0.00071}_{-0.00076}$	$0.003^{+0.00065}_{-0.0007}$	1404	$0.00728^{+0.0012}_{-0.0015}$	$0.000 = \pm 0.0012$	1332
$t_{ m SKS}$	$0.00721^{+0.002}_{-0.0024}$	$0.00984^{+0.0017}_{-0.0019}$	1755	$0.14872^{+0.025}_{-0.032}$	$0.17799^{+0.019}_{-0.023}$	1488
$t_{ m FGD}$	$\begin{array}{c} 0.01351^{+0.0046}_{-0.0051} \\ 0.00523^{+0.0029}_{-0.0024} \end{array}$	$0.01876^{+0.0042}_{-0.0041}$	1404	$0.24435^{+0.028}_{-0.04}$	$0.2852^{+0.02}_{-0.024}$	1103
$t_{ m MMD}$	$0.00523^{+0.0029}_{-0.0024}$	$0.00739^{+0.0027}_{-0.0023}$	3255	$0.3198^{+0.042}_{-0.053}$	$0.37039_{-0.037}^{+0.037}$	1712
$t_{ m LLR}$	$0.00026^{+0.00016}_{-0.00017}$	$\begin{array}{c} -0.001876^{+0.0042}_{-0.0041} \\ 0.01876^{+0.0042}_{-0.0041} \\ 0.00739^{+0.0027}_{-0.0023} \\ 0.00039^{+0.00016}_{-0.00016} \end{array}$	3594	-	-	-
$\mathcal{U} ext{-} ext{deformation}$			Timing			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$t_{ m FGD}$	$0.4208^{+0.05}_{-0.07}$	$0.49461^{+0.036}_{-0.043}$	1053	637		·
$t_{ m LLR}$	_	-	-	_		
$t_{ m MMD}$	$0.55193^{+0.079}_{-0.085}$	$\begin{array}{c} 0.64396^{+0.059}_{-0.064} \\ 0.30376^{+0.032}_{-0.04} \end{array}$	1542	1276		
$t_{ m SKS}$	$0.2538^{+0.042}_{-0.054}$	$0.30376_{-0.04}^{+0.032}$	1434	392		
$t_{ m SW}$	$0.3659^{+0.046}_{-0.07}$	$0.43228^{+0.037}_{-0.044}$	1169	289		
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} 0.55193^{+0.079}_{-0.085} \\ 0.2538^{+0.042}_{-0.054} \\ 0.3659^{+0.046}_{-0.07} \\ \textbf{0.01199}^{+0.002}_{-0.0022} \end{array}$	$0.0143^{+0.0019}_{-0.0019}$	1313	42		