$\begin{tabular}{ll} \hline MoG model with $d=5$, $q=3$, and $n=m=10^4$ \\ \hline \hline \end{tabular}$						
	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
Statistic	$\epsilon_{95\%{ m CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.09192^{+0.035}_{-0.035}$	$0.12363^{+0.035}_{-0.032}$	1353	$0.03015^{+0.0085}_{-0.0099}$	$0.04164^{+0.0081}_{-0.0086}$	1531
$t_{\overline{ ext{KS}}}$	$0.00496^{+0.0017}_{-0.0017}$	$0.00664^{+0.0015}$	1539	$ \begin{array}{c c} -0.0039 \\ 0.00274 \begin{array}{c} +0.00063 \\ -0.00069 \\ 0.01644 \begin{array}{c} +0.0038 \\ -0.0045 \end{array} \end{array} $	$0.00353^{+0.00059}_{-0.00064}$ $0.02223^{+0.0033}_{-0.0038}$	1626
$t_{ m SKS}$	$ \begin{array}{c} 0.05494^{+0.019}_{-0.019} \\ 0.10354^{+0.06}_{-0.044} \end{array} $	$\begin{array}{c} 0.07242^{+0.018}_{-0.018} \\ 0.14117^{+0.056}_{-0.042} \\ 0.08544^{+0.033}_{-0.025} \end{array}$	1748	$0.01644^{+0.0038}_{-0.0045}$	$0.02223^{+0.0033}_{-0.0038}$	1888
$t_{ m FGD}$	$0.10354^{+0.06}_{-0.044}$	$0.14117^{+0.056}_{-0.042}$	1278	$10.0327^{+0.0089}$	$0.0444^{+0.0077}_{-0.0077}$	1270
$t_{ m MMD}$	$\begin{array}{c} 0.06434^{+0.035}_{-0.025} \\ 0.00958^{+0.0027}_{-0.0029} \end{array}$	$0.08544^{+0.033}_{-0.025}$	1344	$\begin{array}{c} 0.0027_{-0.01}^{+0.0054} \\ 0.01392_{-0.0046}^{+0.0054} \\ 0.00221_{-0.00074}^{+0.00074} \\ 0.00027_{-0.00016}^{+0.00016} \end{array}$	$0.0444^{+0.0077}_{-0.0077}$ $0.0188^{+0.005}_{-0.0044}$	1497
$t_{ m NPLM}$	$0.00958^{+0.0027}_{-0.0029}$	$0.01168^{+0.0025}_{-0.0026}$	4593	$0.00221^{+0.00079}_{-0.00074}$	$\begin{array}{c} -0.00074 \\ 0.0027^{+0.00074} \\ -0.00068 \\ 0.00037^{+0.00017} \\ -0.00016 \end{array}$	5043
$t_{\rm LLR}$	$\begin{array}{c} 0.00958 \begin{array}{c} -0.0029 \\ -0.00078 \begin{array}{c} +0.00047 \\ -0.00047 \end{array} \end{array}$	$0.0011^{+0.00047}_{-0.00047}$	2810			3000
$\Sigma_{i \neq j}$ -deformation				$pow_+$ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.05949^{+0.013}_{-0.018}$	$0.08161^{+0.01}_{-0.014} \\ 1.00354^{+0.00012}_{-0.00043}$	1421	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$0.0255^{+0.0047}_{-0.0053}$	1259
$t_{\overline{ ext{KS}}}$	$  1.00317^{+0}_{-0.0013} $	$1.00354^{+0.00012}_{-0.00043}$	1384	$0.00345^{+0.00099}_{-0.0011}$	$0.00444^{+0.00096}_{-0.0007}$	1612
$t_{ m SKS}$	$  0.05701_{-0.018}^{+0.013}$	$0.0746^{+0.014}_{-0.014}$ $0.03421^{+0.005}_{-0.0056}$	1593	$0.0106^{+0.0024}_{-0.0027}$	$0.01405^{+0.0021}_{-0.0023} \\ 0.02668^{+0.0046}_{-0.0048}$	1807
$t_{ m FGD}$	$0.02441^{+0.006}_{-0.0062}$	$0.03421^{+0.005}_{-0.0056}$	1648	$\begin{array}{c} 0.00343_{-0.0011} \\ 0.0106_{-0.0027}^{+0.0024} \\ 0.01964_{-0.006}^{+0.0054} \\ \end{array}$	$0.02668^{+0.0046}_{-0.0048}$	1294
$t_{ m MMD}$	$0.04929^{+0.019}_{-0.017}$	$0.06712^{+0.017}_{-0.015}$	1607	$  0.00788^{+0.0032}_{-0.0027}$	$0.01064^{+0.003}_{-0.0024}$	1518
$t_{ m NPLM}$	$0.00354^{+0.0013}_{-0.0014}$	$0.00451^{+0.0013}_{-0.0012}$	5257	$0.00143^{+0.00053}_{-0.00049}$	$\begin{array}{c} 0.00174^{+0.0005}_{-0.00044} \\ 0.00057^{+0.00025}_{-0.00025} \end{array}$	5082
$t_{\rm LLR}$	-	-		$0.00041^{+0.00025}_{-0.00025}$		3017
powdeformation			$\mathcal{N} ext{-deformation}$			
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$ \begin{array}{c} 0.01989^{+0.0056}_{-0.0064} \\ 0.00317^{+0.0009}_{-0.0028} \\ 0.01066^{+0.0023}_{-0.0027} \end{array} $	$\begin{array}{c} 0.0273^{+0.0052}_{-0.0055} \\ \textbf{0.00416}^{+0.0009}_{-0.00083} \\ 0.01407^{+0.0021}_{-0.0022} \\ \end{array}$	$\boldsymbol{1221}$	$ \begin{array}{c} 0.25306^{+0.031}_{-0.043} \\ \textbf{0.00921}^{+0.0016}_{-0.0017} \\ 0.18137^{+0.025}_{-0.036} \\ \end{array} $	$0.29897^{+0.026}_{-0.029}$	1050
$t_{\overline{ ext{KS}}}$	$0.00317^{+0.0009}_{-0.00089}$	$0.00416^{+0.0009}_{-0.00083}$	1634	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$0.01112^{+0.0016}_{-0.0016}$	1496
$t_{ m SKS}$	$0.01066^{+0.0023}_{-0.0027}$	$0.01407^{+0.0021}_{-0.0022}$	1804	$0.18137^{+0.025}_{-0.036}$	$0.21312^{+0.023}_{-0.025}$	1551
$t_{ m FGD}$	$0.02088_{-0.0061}^{+0.0039}$	$0.02847^{+0.005}_{-0.005}$	1300	$0.29378^{+0.023}_{-0.045}$	$0.34516^{+0.022}_{-0.026}$	1080
$t_{ m MMD}$	$0.00858^{+0.0037}_{-0.0032}$	$0.01169^{+0.0034}_{-0.003}$	1550	$0.37502^{+0.046}_{-0.064}$	$0.43162^{+0.041}_{-0.039}$	1240
$t_{ m NPLM}$	$\begin{array}{c} 0.00141^{+0.00055}_{-0.00052} \\ 0.00036^{+0.00025}_{-0.00025} \end{array}$	$\begin{array}{c} 0.00173^{+0.00051}_{-0.00048} \\ 0.00053^{+0.00025}_{-0.00025} \end{array}$	5153	$0.10681^{+0.017}_{-0.025}$	$0.11719^{+0.016}_{-0.018}$	3939
$t_{\rm LLR}$			3139	-	-	
$\mathcal{U} ext{-deformation}$			Timing			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$t^{\text{null}}$ (s)		
$t_{ m SW}$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$0.51675^{+0.039}_{-0.053}$	988	261		
$t_{\overline{ ext{KS}}}$	$\left  \begin{array}{c} 0.01504_{-0.0027}^{+0.0026} \end{array} \right $	$\begin{array}{c} 0.51675^{+0.039}_{-0.053} \\ 0.01804^{+0.0022}_{-0.0026} \\ 0.36537^{+0.036}_{-0.045} \end{array}$	1510	37		
$t_{ m SKS}$	$ \begin{array}{c} \textbf{0.01504}^{+0.0027}_{-0.0027} \\ 0.30846^{+0.044}_{-0.057} \\ 0.50798^{+0.053}_{-0.076} \end{array} $	$0.36537^{+0.036}_{-0.045}$	1513	352		
$t_{ m FGD}$	$0.50798^{+0.053}_{-0.076}$	$0.59684^{+0.038}_{-0.049}$	1030	368		
$t_{ m MMD}$	$0.64544^{+0.087}_{-0.099}$	$0.7501^{+0.064}_{-0.067}$	1231	215	ı	
$t_{ m NPLM}$	$0.1857^{+0.03}_{-0.043}$	$0.20519_{-0.029}^{+0.027}$	3775	3656		
$t_{ m LLR}$	_	-	-	-		