CMoG model with $d=5,\ q=3,\ and\ n=m=2\cdot 10^4$						
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%{ m CL}}$	$\epsilon_{99\%\mathrm{CL}}$	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} \end{array} $	$0.08858^{+0.021}_{-0.02}$	1309	$0.02167^{+0.0065}_{-0.0076}$	$0.03029^{+0.0061}_{-0.0067}$	1429
$t_{\overline{ ext{KS}}}$	$0.00323^{+0.0012}_{-0.0013}$	$0.00453_{-0.0012}^{+0.0011}$	1306	$\begin{array}{c} \textbf{0.0210} & -0.0076 \\ \textbf{0.00187} & +0.00049 \\ -0.00058 \\ 0.01144 & -0.0027 \\ -0.0035 \end{array}$	$0.00247^{+0.00044}_{-0.00049}$	1364
$t_{ m SKS}$	$0.03829^{+0.013}_{-0.013}$	$0.05211^{+0.013}_{-0.012}$	1567	$0.01144^{+0.0027}_{-0.0035}$	$0.01578^{+0.0024}_{-0.0026}$	1687
$t_{ m FGD}$	$0.07491^{+0.041}_{-0.029}$	$0.10089^{+0.039}_{-0.028}$	1266	$0.02357^{+0.0063}_{-0.007}$	$0.03187^{+0.0055}_{-0.0054}$	1324
$t_{ m MMD}$	$ \begin{array}{c} 0.07491_{-0.029}^{+0.029} \\ 0.04409_{-0.016}^{+0.023} \\ 0.00054_{-0.00031}^{+0.00031} \end{array} $	$0.05957^{+0.022}_{-0.016}$	1908	$0.01045^{+0.0043}_{-0.0036}$	$0.01406^{+0.004}_{-0.0033}$	2122
$t_{ m LLR}$	$0.00054^{+0.00031}_{-0.00031}$	$\begin{array}{c} \textbf{0.00353}_{-0.02} \\ \textbf{0.00453}_{-0.0011}^{+0.0011} \\ \textbf{0.05211}_{-0.012}^{+0.013} \\ \textbf{0.10089}_{-0.028}^{+0.039} \\ \textbf{0.05957}_{-0.016}^{+0.0022} \\ \textbf{0.00074}_{-0.00031}^{+0.00031} \end{array}$	3525	$\begin{array}{c} 0.01144^{+0.0021}_{-0.0035} \\ 0.02357^{+0.0063}_{-0.007} \\ 0.01045^{+0.0043}_{-0.0036} \\ 0.00017^{+0.00012}_{-0.00013} \end{array}$	$\begin{array}{c} 0.0023 - 0.0067 \\ 0.00247 - 0.000449 \\ 0.01578 - 0.0026 \\ 0.03187 - 0.0054 \\ 0.01406 - 0.0033 \\ 0.00025 + 0.00012 \\ \end{array}$	3833
$\Sigma_{i \neq j}$ -deformation			pow deformation			
Statistic	$\epsilon_{95\%{ m CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{+}}$	t (s)
$t_{ m SW}$	$0.00814^{+0.0022}_{-0.0027}$	$0.01164^{+0.002}_{-0.0022}$	1145	$0.01344^{+0.0038}_{-0.0045}$	$0.01867^{+0.0035}_{-0.0038}$	1457
$t_{\overline{ ext{KS}}}$	$0.00064^{+0.00019}_{-0.0002}$	$0.00086^{+0.00019}_{-0.00018}$	1057	$0.00225^{+0.00067}_{-0.00076}$	$0.00301^{+0.00069}_{-0.0066}$	1387
$t_{ m SKS}$	± 0.0013	$0.00628^{+0.0013}_{-0.0013}$	1474	$0.00744^{+0.0016}_{-0.0021}$	$0.01008^{+0.0014}_{-0.0015}$	1731
$t_{ m FGD}$	$ \begin{array}{c} 0.00449 ^{+0.0016} \\ 0.00815 ^{+0.0021} _{-0.0026} \end{array} $	$0.01145^{+0.0018}_{-0.002}$	1056	$0.01441^{+0.004}_{-0.0041}$	$0.01943^{+0.0036}_{-0.0033}$	1379
$t_{ m MMD}$	$0.0062^{+0.0035}_{-0.003}$	$0.00889_{-0.0028}^{+0.0033}$ $6e - 05_{-3e-05}^{+3e-05}$	2209	$0.00603^{+0.0027}_{-0.0021}$	$0.00804^{+0.0025}_{-0.002}$	2103
$t_{ m LLR}$	$\begin{array}{c} 0.0062^{+0.0026}_{-0.003} \\ 0.0062^{+0.0035}_{-0.003} \\ 4e - 05^{+3e-05}_{-2e-05} \end{array}$	$6e - 05^{+3e-05}_{-3e-05}$	3531	$0.00029_{-0.00016}^{-0.0021}$	$0.00039^{+0.00017}_{-0.00016}$	3512
$pow\deformation$				$\mathcal{N} ext{-} ext{deformation}$		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{-}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathcal{N}}$	t (s)
$t_{ m SW}$	$0.01322^{+0.0042}_{-0.0048}$	$0.01865^{+0.0038}_{-0.0041} \ 0.003^{+0.00065}_{-0.00077}$	1443	$0.21144^{+0.028}_{-0.04}$	$0.25259^{+0.02}_{-0.027}$	1202
$t_{\overline{ ext{KS}}}$	$0.00223^{+0.00071}_{-0.0076}$	$0.003^{+0.00065}_{-0.0007}$	1404	$0.00728^{+0.0012}_{-0.0015}$	0.00077 ± 0.0012	1332
$t_{ m SKS}$	$0.00721^{+0.002}_{-0.0024}$	$0.00984^{+0.0017}_{-0.0010}$	1755	$0.14872^{+0.023}_{-0.032}$	$0.00877_{-0.0013}$ $0.17799_{-0.023}^{+0.019}$	1488
$t_{ m FGD}$	$0.01351^{+0.0046}_{-0.0051}$	$0.01876^{+0.0042}_{-0.0041}$	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
$t_{ m LLR}$	$\begin{array}{c} -0.0024 \\ -0.01351 ^{+0.0046}_{-0.0051} \\ 0.00523 ^{+0.0029}_{-0.0024} \\ 0.00026 ^{+0.00016}_{-0.00017} \end{array}$	$\begin{array}{c} -0.0019 \\ -0.01876 ^{+0.0042} \\ -0.0041 \\ 0.00739 ^{+0.0027} \\ -0.0023 \\ 0.00039 ^{+0.00016} \\ -0.00016 \end{array}$	3594	-	-	_
$\mathcal{U} ext{-} ext{deformation}$			Timing			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathcal{U}}$	t (s)	t^{null} (s)		
$t_{ m SW}$	$\begin{array}{ c c c c c c }\hline 0.3659^{+0.046}_{-0.07} \\ \textbf{0.01199}^{+0.002}_{-0.0022} \\ \hline \end{array}$	$0.43228^{+0.037}_{-0.044}$	1169	289		
$t_{\overline{ ext{KS}}}$	$0.01199^{+0.002}_{-0.0022}$	$0.0143^{+0.0019}_{-0.0019}$	1313	42		
$t_{ m SKS}$	$1.0.2538^{\pm0.042}$	$0.30376^{+0.032}_{-0.04}$ $0.49461^{+0.036}_{-0.043}$	1434	392		
$t_{ m FGD}$	$0.4208^{+0.05}_{-0.07}$	$0.49461^{+0.036}_{-0.043}$	1053	637		
$t_{ m MMD}$	$\begin{array}{c} 0.2560_{-0.054} \\ 0.4208_{-0.07}^{+0.05} \\ 0.55193_{-0.085}^{+0.079} \end{array}$	$0.64396^{+0.059}_{-0.064}$	1542	1276		
$t_{ m LLR}$	-	-	-	-		