	CMoG	model with d =	$5,\ \mathbf{q}=3$	3,  and  n = m = 5		
	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$\begin{array}{c} 0.03867^{+0.015}_{-0.015} \\ \textbf{0.002}^{+0.00077}_{-0.00083} \\ 0.02325^{+0.0079}_{-0.0085} \\ 0.04381^{+0.026}_{-0.019} \\ 0.02669^{+0.014}_{-0.011} \\ 0.00036^{+0.00019}_{-0.0002} \end{array}$	$0.05335^{+0.015}_{-0.015}$	1312	$0.01366^{+0.0039}_{-0.0044}$	$0.01898^{+0.0035}_{-0.0039}$	1415
$t_{\overline{ ext{KS}}}$	$0.002^{+0.00077}_{-0.00083}$	$0.00277^{+0.00075}_{-0.00076}$	1308	$0.00121^{+0.00032}_{-0.00039}$	$\begin{array}{c} \textbf{0.00155} = 0.0033 \\ \textbf{0.00157} = 0.00033 \\ 0.00993 = 0.0017 \\ 0.02005 = 0.0035 \\ 0.00833 = 0.0023 \\ 0.003 \\ 0.0$	1315
$t_{ m SKS}$	$0.02325^{+0.0079}_{-0.0085}$	$0.03165^{+0.0076}_{-0.0076}$	1439	$0.00731^{+0.0018}_{-0.0022}$	$0.00993^{+0.0015}_{-0.0017}$	1539
$t_{ m FGD}$	$0.04381^{+0.026}_{-0.019}$	$0.06082^{+0.024}_{-0.018}$	1536	$0.0147^{+0.004}_{-0.0043}$	$0.02005^{+0.0035}_{-0.0035}$	1610
$t_{ m MMD}$	$0.02669^{+0.014}_{-0.011}$	$0.03545^{+0.014}_{-0.011}$	8990	$0.00629^{+0.0031}_{-0.0025}$	$0.00833^{+0.0029}_{-0.0023}$	9570
$t_{ m LLR}$	$0.00036^{+0.00019}_{-0.0002}$	$\begin{array}{c} \textbf{0.00353} \begin{array}{c} \textbf{-0.015} \\ \textbf{0.00277} \begin{array}{c} \textbf{-0.00075} \\ \textbf{-0.00076} \\ \textbf{0.03165} \begin{array}{c} \textbf{-0.0076} \\ \textbf{-0.0076} \\ \textbf{0.06082} \begin{array}{c} \textbf{-0.014} \\ \textbf{-0.014} \\ \textbf{0.03545} \begin{array}{c} \textbf{-0.014} \\ \textbf{-0.011} \\ \textbf{0.0005} \begin{array}{c} \textbf{+0.0002} \\ \textbf{-0.0002} \end{array} \end{array}$	2776	$\begin{array}{c} 0.01500_{-0.0044}^{-0.0049} \\ 0.00121_{-0.00039}^{+0.00032} \\ 0.00731_{-0.0022}^{+0.0018} \\ 0.0147_{-0.0043}^{+0.004} \\ 0.00629_{-0.0025}^{+0.0031} \\ 0.00011_{-8e-05}^{+7e-05} \end{array}$	$0.00016^{+8e-05}_{-8e-05}$	3063
$\Sigma_{i \neq j}$ -deformation				$pow_{\perp}$ -deformation		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{+}}$	t (s)
$t_{ m SW}$	$0.0049^{+0.0014}_{-0.0016}$	$0.00695^{+0.0013}_{-0.0013}$	1146	$0.00841^{+0.0024}_{-0.0028}$	$0.01169^{+0.0022}_{-0.0023}$	1462
$t_{\overline{ ext{KS}}}$	$0.0004^{+0.00014}_{-0.00014}$	$0.00054^{+0.00013}_{-0.00014}$	1014	$ \begin{array}{c} -0.0023 \\ 0.00142 \begin{array}{c} +0.00043 \\ -0.00049 \\ 0.00467 \begin{array}{c} +0.001 \\ -0.0013 \end{array} \end{array} $	$0.00189^{+0.00041}_{-0.00043}$	1326
$t_{ m SKS}$	$0.00281^{+0.00078}_{-0.00077}$	$0.00385^{+0.00072}_{-0.0008}$	1254	$0.00467^{+0.001}_{-0.0013}$	$0.0063^{+0.00088}_{-0.001}$	1552
$t_{ m FGD}$	$0.00511_{-0.0013}^{+0.0097}$	$0.0071^{+0.00095}_{-0.00095}$	1391	$0.0089^{+0.0026}_{-0.0027}$	$0.01216^{+0.0023}_{-0.0023}$	1790
$t_{ m MMD}$	$0.00427^{+0.002}_{-0.0018}$	$0.00171 \pm 0.0019$	9205	$\begin{array}{c} 0.00361^{+0.0019}_{-0.0014} \\ 0.00017^{+0.0001}_{-9e-05} \end{array}$	$0.00478^{+0.0018}_{-0.0014}$	9705
$t_{ m LLR}$	$\begin{array}{c} -0.0013 \\ 0.00427^{+0.002}_{-0.0018} \\ 3e - 05^{+2e-05}_{-2e-05} \end{array}$	$4e - 05^{+2e-05}_{-2e-05}$	4239	$0.00017^{+0.0001}_{-9e-05}$	$0.00025^{+0.0001}_{-0.0001}$	2854
$pow\deformation$				$\mathcal{N} ext{-deformation}$		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{-}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%{ m CL}}^{\mathcal{N}}$	t (s)
$t_{ m SW}$	$ \begin{array}{c} 0.00858^{+0.0024}_{-0.0029} \\ \mathbf{0.00142^{+0.00045}_{-0.0005}} \\ 0.0048^{+0.0011}_{-0.0014} \end{array} $	$0.01188^{+0.0023}_{-0.0024}$	1466	$0.16467^{+0.02}_{-0.029}$	$0.19494^{+0.015}_{-0.019}$	1187
$t_{\overline{ ext{KS}}}$	$0.00142^{+0.00045}_{-0.0005}$	$0.00188^{+0.00042}_{-0.00044}$	1320	$\left  \begin{array}{c} 0.00546^{+0.00092}_{-0.0012} \end{array} \right $	$0.00651^{+0.00087}_{-0.0009}$	1226
$t_{ m SKS}$	$0.0048^{+0.0011}_{-0.0014}$	$0.00642^{+0.001}$	1562	$0.11614^{+0.010}_{-0.024}$	$0.1371^{+0.013}_{-0.017}$	1321
$t_{ m FGD}$	$0.0091_{-0.0026}^{+0.0025}$	$\begin{array}{c} 0.01247^{+0.0022}_{-0.0022} \\ 0.00492^{+0.0019}_{-0.0015} \end{array}$	1789	$0.1925^{+0.019}_{-0.027}$	$0.22617^{+0.014}_{-0.016}$	1452
$t_{ m MMD}$	$\begin{array}{c} 0.00374^{+0.0019}_{-0.0016} \\ 0.00018^{+0.0001}_{-0.0001} \end{array}$	$0.00492^{+0.0019}_{-0.0015}$	9724	$ \begin{array}{c} 0.1925^{+0.019}_{-0.027} \\ 0.25293^{+0.036}_{-0.048} \end{array} $	$0.28868_{-0.032}^{+0.032}$	8612
$t_{ m LLR}$	$0.00018^{+0.0001}_{-0.0001}$	$\begin{array}{c} 0.00492_{-0.0015} \\ 0.00025_{-0.0001}^{+0.0001} \end{array}$	2850	-	-	_
$\mathcal{U}$ -deformation			Timing			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%{ m CL}}^{\cal U}$	t (s)	$t^{\text{null}}$ (s)		
$t_{ m SW}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$0.33591^{+0.027}_{-0.033} \ 0.01096^{+0.0013}_{-0.0015}$	1344	319		
$t_{\overline{ ext{KS}}}$	$0.00924^{+0.0015}_{-0.0019}$	$0.01096^{+0.0013}_{-0.0015}$	1208	49		
$t_{ m SKS}$	$0.19824^{+0.029}_{-0.04}$	$0.02400\pm0.023$	1271	484		
$t_{ m FGD}$	$ \begin{array}{c} 0.19824^{+0.029}_{-0.04} \\ 0.33191^{+0.034}_{-0.044} \end{array} $	$0.23402_{-0.029} \ 0.39255_{-0.028}^{+0.022}$	1433	1150		
$t_{ m MMD}$	$0.43535^{+0.067}_{-0.079}$	$0.5005^{+0.054}_{-0.057}$	7010	13839		
$t_{ m LLR}$	-	-	-	-		