$\mathbf{MoG} \ \mathbf{model} \ \mathbf{with} \ \mathbf{d=5}, \ \mathbf{q=3}, \ \mathbf{and} \ \mathbf{n=m=2\cdot 10^4}$						
	$\mu$ -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)
$t_{ m SW}$	$ \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} $	$\begin{array}{c} 0.08858^{+0.021}_{-0.02} \\ \mathbf{0.00453^{+0.0011}_{-0.0012}} \\ 0.05211^{+0.013}_{-0.012} \end{array}$	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	$\begin{array}{c} 0.02137 - 0.0076 \\ 0.00187 - 0.00049 \\ -0.00058 \\ 0.01144 - 0.0035 \\ 0.02357 + 0.0063 \\ 0.01045 + 0.0043 \\ 0.0036 + 0.0036 \\ 0.0035 + 0.0012 \\ \end{array}$	$\begin{array}{c} \textbf{0.00347} & \textbf{0.00044} \\ \textbf{0.00247} & \textbf{-0.00049} \\ \textbf{0.01578} & \textbf{-0.0026} \\ \textbf{0.03187} & \textbf{-0.0026} \\ \textbf{0.01406} & \textbf{-0.0033} \\ \textbf{0.01406} & \textbf{-0.0033} \\ \textbf{0.0033} & \textbf{-0.0037} & \textbf{-0.0012} \end{array}$	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
$t_{ m FGD}$	$0.07491^{+0.041}_{-0.029}$	$0.05211_{-0.012}^{+0.013}$ $0.10089_{-0.028}^{+0.039}$	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
$t_{ m LLR}$	$0.00054^{+0.00031}_{-0.00031}$	$\begin{array}{c} 0.10089^{+0.008}_{-0.028} \\ 0.05957^{+0.022}_{-0.016} \\ 0.00074^{+0.00031}_{-0.00031} \end{array}$	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)
$t_{ m SW}$	$0.01981^{+0.0047}_{-0.0064}$	$0.02733^{+0.0041}_{-0.0047}$	1806	$0.01344^{+0.0038}_{-0.0045}$	$0.01867^{+0.0035}_{-0.0038}$	1457
$t_{\overline{ ext{KS}}}$	$1.0022^{+0.00012}_{-0.00086}$	$1.00256^{+0.00025}_{-0.0003}$	1705	$0.00225^{+0.00067}_{-0.00076}$	$0.00301^{+0.00069}_{-0.00066}$	1387
$t_{ m SKS}$	$0.01804^{+0.0057}$	$0.02443^{+0.0055}_{-0.0054}$	2055	$0.00744^{+0.0016}_{-0.0021}$	$0.01008^{+0.0014}_{-0.0015}$	1731
$t_{ m FGD}$	$0.00829^{+0.0022}_{-0.0025}$	$0.01151^{+0.0019}_{-0.0019}$	2128	$0.01441^{+0.0041}_{-0.0041}$	$0.01943^{+0.0036}_{-0.0032}$	1379
$t_{ m MMD}$	$0.01445^{+0.0071}_{-0.0062}$	$0.02029^{+0.0064}_{-0.0053}$	2768	$0.00603^{+0.0027}_{-0.0021}$	$0.00804^{+0.0025}_{-0.002}$	2103
$t_{ m LLR}$	$\begin{array}{c} \textbf{0.0085} \\ \textbf{0.00829} \\ \textbf{-0.0025} \\ 0.01445 \\ \textbf{-0.0062} \\ 0.03417 \\ \textbf{-0.017} \\ \end{array}$	$0.02029^{+0.0064}_{-0.0053} \\ 0.04263^{+0.011}_{-0.014}$	4561	$ \begin{array}{c} 0.01441_{-0.0041} \\ 0.00603_{-0.0021}^{+0.0027} \\ 0.00029_{-0.00016}^{+0.00016} \end{array} $	$\begin{array}{c} -0.0035 \\ 0.00804 \substack{+0.0025 \\ -0.002} \\ 0.00039 \substack{+0.00017 \\ -0.00016} \end{array}$	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)
$t_{ m SW}$	$0.01322^{+0.0042}_{-0.0048}$	$0.01865^{+0.0038}_{-0.0041}$	1443	$0.21144^{+0.028}_{-0.04}$	$0.25259_{-0.027}^{+0.02}$	1202
$t_{\overline{ ext{KS}}}$	$0.00223^{+0.00071}_{-0.00076}$	$0.003^{+0.00065}_{-0.0007}$	1404	$0.00728^{+0.0012}_{-0.0015}$	$0.00877^{+0.0012}_{-0.0013}$	1332
$t_{ m SKS}$	$0.00721^{+0.002}_{-0.0024}$	$0.01809_{-0.0041}^{+0.00065}$ $0.003_{-0.0007}^{+0.0007}$ $0.00984_{-0.0019}^{+0.0017}$	1755	$0.14872^{+0.025}_{-0.032}$	$0.17799^{+0.019}_{-0.023}$	1488
$t_{ m FGD}$	$-0.01951 \pm 0.0046$	$0.01876^{+0.0042}_{-0.0041}$	1404	$0.24435^{+0.028}_{-0.04}$	$0.2852^{+0.02}_{-0.024}$	1103
$t_{ m MMD}$	$ \begin{array}{c} 0.01351_{-0.0051} \\ 0.00523_{-0.0024}^{+0.0029} \end{array} $	$0.00739^{+0.0027}_{-0.0023}$	3255	$0.3198^{+0.042}_{-0.053}$	$0.37039_{-0.037}^{+0.037}$	1712
$t_{ m LLR}$	$0.00026^{+0.00016}_{-0.00017}$	$\begin{array}{c} -0.0012 \\ -0.0042 \\ -0.0041 \\ 0.00739 {}^{+0.0027}_{-0.0023} \\ 0.00039 {}^{+0.00016}_{-0.00016} \end{array}$	3594	-	-	-
$\mathcal{U} ext{-} ext{deformation}$			Timing			
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$t^{\text{null}}$ (s)		
$t_{ m SW}$	$\begin{array}{c} 0.3659^{+0.046}_{-0.07} \\ \textbf{0.01199}^{+0.002}_{-0.0022} \end{array}$	$0.43228^{+0.037}_{-0.044}$	1169	289		
$t_{\overline{ ext{KS}}}$	$0.01199^{+0.002}_{-0.0022}$	$0.0143^{+0.0019}_{-0.0010}$	1313	42		
$t_{ m SKS}$	$ \begin{vmatrix} 0.2538^{+0.042}_{-0.054} \\ 0.4208^{+0.05}_{-0.072} \end{vmatrix} $		1434	392		
$t_{ m FGD}$	$0.4208^{+0.05}_{-0.07}$	$0.40461 \pm 0.036$	1053	637		
$t_{ m MMD}$	$0.55193_{-0.085}^{+0.079}$	$0.49401_{-0.043} \ 0.64396_{-0.064}^{+0.059}$	1542	1276		
$t_{ m LLR}$	_	-	-	-		