MoG model with $d=20, \ q=5$ 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)
$t_{ m SW}$	$0.0705^{+0.029}_{-0.03}$	$\begin{array}{c} 0.09728^{+0.028}_{-0.027} \\ \textbf{0.01001}^{+0.0017}_{-0.0021} \\ 0.0723^{+0.017}_{-0.018} \\ 0.11456^{+0.039}_{-0.032} \\ 0.09628^{+0.029}_{-0.026} \\ 0.0005^{+0.0002}_{-0.00021} \end{array}$	2879	$0.02552^{+0.0073}_{-0.0093}$	$\begin{array}{c} 0.03528^{+0.0065}_{-0.0072} \\ \textbf{0.00381}^{+0.00066}_{-0.0008} \\ 0.02765^{+0.0037}_{-0.0063} \\ 0.04052^{+0.0071}_{-0.0069} \\ 0.02118^{+0.0073}_{-0.0059} \\ 0.00016^{+7e-05} \end{array}$	3063
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} \textbf{0.0763}_{-0.03}^{-0.03} \\ \textbf{0.00723}_{-0.0027}^{+0.002} \\ 0.05224_{-0.021}^{+0.019} \\ 0.08351_{-0.035}^{+0.042} \end{array}$	$0.01001^{+0.0017}_{-0.0021}$	3020	$\begin{array}{c} \textbf{0.02932}_{-0.0093} \\ \textbf{0.00268}_{-0.001}^{+0.00078} \\ \textbf{0.02037}_{-0.0062}^{+0.0044} \\ \textbf{0.02984}_{-0.0089}^{+0.0081} \\ \textbf{0.02989} \end{array}$	$0.00381^{+0.00066}_{-0.0008}$	3153
$t_{ m SKS}$	$0.05224^{+0.019}_{-0.021}$	$0.0723^{+0.017}_{-0.018}$	2976	$0.02037^{+0.0044}_{-0.0062}$	$0.02765^{+0.0037}_{-0.0043}$	3092
$t_{ m FGD}$	$0.08351_{-0.035}^{+0.042}$	$0.11456_{-0.032}^{+0.039}$	3069	$0.02984^{+0.0081}_{-0.0089}$	$0.04052^{+0.0071}_{-0.0069}$	3280
$t_{ m MMD}$	$0.06823^{+0.033}_{-0.03}$	$0.09628^{+0.029}_{-0.026}$	3967	$0.01531^{+0.0078}_{-0.0065}$	$0.02118^{+0.0073}_{-0.0059}$	4361
$t_{ m LLR}$	$ \begin{array}{c} 0.08351_{-0.035}^{+0.035} \\ 0.06823_{-0.03}^{+0.0033} \\ 0.00035_{-0.0002}^{+0.0002} \end{array} $	$0.0005^{+0.0002}_{-0.00021}$	4803	$0.00011^{+7e-05}_{-6e-05}$	$0.00016^{+7e-05}_{-7e-05}$	6129
$\Sigma_{i \neq j}$ -deformation				pow_+ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%{ m CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{+}}$	t (s)
$t_{ m SW}$	$0.00579^{+0.0014}_{-0.002}$	$0.00798^{+0.0012}_{-0.0015}$	2088	$0.00885^{+0.0026}_{-0.0032}$	$0.01229^{+0.0023}_{-0.0026}$	3289
$t_{\overline{ ext{KS}}}$	$0.00049^{+0.00018}_{-0.00019}$	$0.00072^{+0.00017}_{-0.00018}$	2029	$0.00063^{+0.00022}_{-0.00027}$	$0.00092^{+0.0002}_{-0.0002}$	3366
$t_{ m SKS}$	$0.00368^{+0.0012}_{-0.0014}$	$0.00513^{+0.0011}_{-0.0012}$	2151	$0.00669^{+0.0014}_{-0.0019}$	$0.00899^{+0.001}_{-0.0013}$	3252
$t_{ m FGD}$	$0.00423^{+0.001}_{-0.0012}$	$0.00584_{-0.00086}^{+0.00082}$	2620	$0.01094^{+0.0026}_{-0.0032}$	$0.01482^{+0.0021}_{-0.0023}$	3782
$t_{ m MMD}$	$0.00804^{+0.0032}$	$0.01143^{+0.0029}_{-0.0027}$	3204	$\begin{array}{c} 0.00543^{+0.0025}_{-0.0022} \\ 2e - 05^{+2e-05}_{-1e-05} \end{array}$	$0.00756^{+0.0022}_{-0.0019}$	4416
$t_{ m LLR}$	$1e - 05^{+0}_{-1e - 05}$	$1e - 05^{+0}_{-1e - 05}$	4788	$2e - 05^{+2e-05}_{-1e-05}$	$3e - 05^{+2e - 05}_{-1e - 05}$	5340
$pow\deformation$				$\mathcal{N} ext{-deformation}$		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathrm{pow}_{-}}$	t (s)	$\epsilon_{95\%{ m CL}}$	$\epsilon_{99\%\mathrm{CL}}^{\mathcal{N}}$	t (s)
$t_{ m SW}$	$\begin{array}{c} 0.00925^{+5}_{-0.0034} \\ 0.00063^{+0.00022}_{-0.00027} \end{array}$	$0.01271^{+5}_{-0.0027}$	$\boldsymbol{2942}$	$0.23992^{+0.03}_{-0.05}$	$0.28403^{+0.022}_{-0.031}$	2619
$t_{\overline{ ext{KS}}}$	$0.00063^{+0.00022}_{-0.00027}$	$0.00092^{+0.00019}_{-0.00022}$	3365	$0.01024^{+0.003}_{-0.0025}$	$0.01397^{+0.003}_{-0.0031}$	3009
$t_{ m SKS}$	$0.0069^{+0.0014}_{-0.002}$	$0.00915^{+0.0011}_{-0.0014}$	3261	$\mid 0.19595^{+0.03}_{-0.043} \mid$	$0.2337^{+0.024}_{-0.03}$	2760
$t_{ m FGD}$	$0.01118^{+0.0027}_{-0.0032}$	$\begin{array}{c} 0.01522^{+0.0022}_{-0.0024} \\ 0.00762^{+0.0024}_{-0.0021} \end{array}$	3767	$0.22616^{+0.025}$	$0.26573^{+0.017}_{-0.02}$	3056
$t_{ m MMD}$	$0.0054^{+0.0026}_{-0.0024}$	$0.00762^{+0.0024}_{-0.0021}$	4486	$0.5492^{+0.07}_{-0.098}$	$0.65017_{-0.055}^{+0.049}$	3135
$t_{ m LLR}$	$3e - 05^{+1e-05}_{-2e-05}$	$4e - 05^{+1}_{-2e-05}^{+000}$	5271	-	-	_
\mathcal{U} -deformation				Timing		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%{ m CL}}^{\cal U}$	t (s)	t^{null} (s)		
$t_{ m SW}$	$0.414^{+0.054}_{-0.084}$	$0.49011^{+0.037}_{-0.054} \ 0.02144^{+0.0043}_{-0.0046}$	2594	302		
$t_{\overline{ ext{KS}}}$	$0.01605^{+0.0043}_{-0.0049}$	$0.02144^{+0.0043}_{-0.0046}$	2920	120		
$t_{ m SKS}$	$0.33963^{+0.052}_{-0.08}$	$0.4023^{+0.04}_{-0.052}$	2714	397		
$t_{ m FGD}$	$0.39292^{+0.043}_{-0.06}$	$0.46165^{+0.029}_{-0.038}$	2912	1022		
$t_{ m MMD}$	$0.95249_{-0.18}^{+0.13}$	$\begin{array}{c} -0.0048 \\ 0.4023^{+0.04}_{-0.052} \\ 0.46165^{+0.029}_{-0.038} \\ 1.13574^{+0.077}_{-0.099} \end{array}$	3196	2276		
$t_{ m LLR}$	-	-	-	-		