$MoG \ model \ with \ d=20, \ q=5, \ and \ n=m=5\cdot 10^4$						
	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)
$t_{ m SW}$	$0.04957^{+0.018}_{-0.02}$	$0.06694^{+0.017}_{-0.017}$	3023	$0.01679^{+0.005}_{-0.0063}$	$0.02315^{+0.0045}_{-0.005}$	3197
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} 0.04397_{-0.02} \\ 0.00482_{-0.0018}^{+0.0013} \\ 0.03647_{-0.014}^{+0.011} \\ 0.05778_{-0.027}^{+0.026} \end{array}$	$\begin{array}{c} -0.0011 \\ 0.00667 - 0.0011 \\ 0.04821 - 0.012 \\ 0.0787 - 0.021 \\ 0.017 \end{array}$	2966	$\begin{array}{c} \textbf{0.00175} = 0.0063 \\ \textbf{0.00175} = 0.00052 \\ 0.01329 = 0.0033 \\ 0.01329 = 0.0043 \\ \end{array}$	$\begin{array}{c} -0.00248 \\ +0.00042 \\ -0.00052 \\ 0.01759 \\ -0.003 \\ 0.02651 \\ +0.0056 \\ \end{array}$	3185
$t_{ m SKS}$	$0.03647^{+0.011}_{-0.014}$	$0.04821^{+0.011}_{-0.012}$	2899	$0.01329^{+0.003}_{-0.0043}$	$0.01759^{+0.0025}_{-0.003}$	$\boldsymbol{3022}$
$t_{ m FGD}$	$0.05778^{+0.026}_{-0.027}$	$0.0787^{+0.023}_{-0.021}$	4047	$ \begin{array}{c} 0.01329^{+0.0043}_{-0.0043} \\ 0.01945^{+0.0063}_{-0.0081} \\ 0.00923^{+0.0058}_{-0.0051} \end{array} $	$0.02651^{+0.0053}_{-0.0056}$	4507
$t_{ m MMD}$	$ \begin{array}{c} 0.05778_{-0.027}^{+0.027} \\ 0.04425_{-0.018}^{+0.019} \\ 0.00021_{-0.00014}^{+0.00013} \end{array} $	$0.06215_{-0.015}^{+0.017}$	10204	$0.00923^{+0.0058}_{-0.0051}$	$0.02651_{-0.0056}^{+0.0056}$ $0.01305_{-0.0044}^{+0.0053}$	11217
$t_{ m LLR}$	$0.00021^{+0.00013}_{-0.00014}$	$0.0003^{+0.00013}_{-0.00014}$	5911	$7e - 05^{+5e - 05}_{-4e - 05}$	0.0001^{+5e-05}_{-4e-05}	6304
$\Sigma_{i \neq j}$ -deformation			pow_+ -deformation			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.02162^{+0.0056}_{-0.008}$	$0.02935^{+0.0045}_{-0.0055}$	3410	$0.00581^{+0.0017}_{-0.0022}$	$0.00798^{+0.0015}_{-0.0017}$	3157
$t_{\overline{ ext{KS}}}$	$1.00146^{+0.00074}_{-0.00031}$	$1.00238^{+0.00055}_{-0.00031}$	3967	$0.0004^{+0.00015}$	$0.00059^{+0.00013}_{-0.00014}$	3363
$t_{ m SKS}$	$0.02306^{+0.0071}_{-0.0088}$	$0.03079^{+0.0062}_{-0.0072}$	3553	$0.0043^{+0.0009}_{-0.0013}$	$0.00565^{+0.00074}_{-0.0009}$	3193
$t_{ m FGD}$	$0.00551^{+0.0015}$	$0.00748^{+0.0013}_{-0.0013}$	6327	$0.00702^{+0.0021}_{-0.0028}$	$0.00965^{+0.0016}_{-0.0019}$	4870
$t_{ m MMD}$	$0.01723^{+0.008}_{-0.0072}$	$0.02431^{+0.0069}_{-0.0064}$	11450	$0.00332^{+0.0018}_{-0.0017}$	$0.00467_{-0.0014}^{+0.0017}$	11801
$t_{ m LLR}$	-	-	-	$\begin{array}{c} 0.0043 \begin{array}{c} -0.00017 \\ 0.0043 \begin{array}{c} +0.0009 \\ -0.0013 \end{array} \\ 0.00702 \begin{array}{c} +0.0021 \\ -0.0028 \end{array} \\ 0.00332 \begin{array}{c} +0.0018 \\ -0.0017 \end{array} \\ 2e - 05 \begin{array}{c} +1e - 05 \\ -1e - 05 \end{array}$	$2e - 05^{-0.0014}_{-1e - 05}$	6877
$pow\deformation$			$\mathcal{N} ext{-deformation}$			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.00604^{+0.0017}_{-0.0023}$	$0.00825^{+0.0016}_{-0.0018}$	3051	$0.19318^{+0.025}_{-0.039}$	$0.22704_{-0.026}^{+0.019}$	2403
$t_{\overline{ ext{KS}}}$	$0.00042^{+0.00015}$	$0.00061^{+0.00013}_{-0.0015}$	3372	$0.00751^{+0.002}_{-0.0024}$	$0.00993^{+0.0018}_{-0.002}$	2934
$t_{ m SKS}$	$0.00441^{+0.00092}$	$0.00574^{+0.00077}_{-0.00094}$	3324	$0.15874^{+0.023}_{-0.034}$	$0.18473^{+0.019}_{-0.023}$	2726
$t_{ m FGD}$	$\begin{array}{c} 0.00712_{-0.0014} \\ 0.00722_{-0.0027}^{+0.0021} \\ 0.00353_{-0.0015}^{+0.0016} \end{array}$	$0.00987^{+0.0016}_{-0.0019}$	4892	$0.18095^{+0.023}_{-0.038}$	$0.21269^{+0.016}_{-0.02}$	3756
$t_{ m MMD}$	$0.00353^{+0.0016}_{-0.0015}$	$0.00494^{+0.0014}_{-0.0012}$	11418	$0.43531_{-0.11}^{+0.066}$	$0.51609_{-0.054}^{+0.045}$	8642
$t_{ m LLR}$	$2e - 05^{+1}_{-1}e^{-0.0013}_{-0.005}$	$2e - 05^{+1e - 05}_{-1e - 05}$	6991	-	-	-
$\mathcal{U} ext{-} ext{deformation}$				Timing		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$t_{ m FGD}$	$0.31409^{+0.04}_{-0.07}$	$0.36919_{-0.036}^{+0.027}$	3643	2795		
$t_{ m LLR}$	-	-	-	-		
$t_{ m MMD}$	$\begin{array}{c} 0.75353^{+0.12}_{-0.18} \\ 0.27395^{+0.041}_{-0.059} \\ 0.33394^{+0.044}_{-0.068} \end{array}$	$0.89336^{+0.078}_{-0.098}$	7700	13860		
$t_{ m SKS}$	$0.27395^{+0.041}_{-0.059}$	$0.3188^{+0.039}_{-0.04}$ $0.39248^{+0.033}_{-0.044}$	2601	509		
$t_{ m SW}$	$0.33394^{+0.044}_{-0.068}$	$0.39248^{+0.033}_{-0.044}$	2354	338		
$t_{\overline{ ext{KS}}}$	$0.01211^{+0.003}_{-0.0035}$	$0.39248_{-0.044} \ 0.01575_{-0.003}^{+0.0027}$	2835	155		