${\bf MoG\ model\ with\ d=20,\ q=5,\ and\ n=m=5\cdot 10^4}$						
	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	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
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} \textbf{0.00482} + \textbf{0.0013} \\ \textbf{0.00482} + \textbf{0.0013} \\ \textbf{0.03647} + \textbf{0.011} \\ \textbf{0.05778} + \textbf{0.026} \\ \textbf{0.05778} + \textbf{0.026} \\ \textbf{0.010} \end{array}$	$0.00667^{+0.0011}_{-0.0013}$	2966	$0.00175^{+0.00052}$	$0.00248^{+0.00042}$	3185
$t_{ m SKS}$	$0.03647^{+0.011}_{-0.014}$	$0.04821^{+0.011}_{-0.012}$	<b>2899</b>	$\begin{array}{c} 0.01329^{+0.003}_{-0.0043} \\ 0.01329^{+0.003}_{-0.0043} \\ 0.01945^{+0.0063}_{-0.0081} \\ 0.00923^{+0.0058}_{-0.0051} \\ 0.00131^{+0.0006}_{-0.0006} \end{array}$	$\begin{array}{c} -0.0052 \\ 0.01759 {}^{+0.0025}_{-0.003} \\ 0.02651 {}^{+0.0053}_{-0.0056} \\ 0.01305 {}^{+0.0053}_{-0.0046} \end{array}$	$\boldsymbol{3022}$
$t_{ m FGD}$	$0.05778^{+0.026}_{-0.027}$	$0.0787^{+0.023}_{-0.021} \\ 0.06215^{+0.017}_{-0.015}$	4047	$0.01945^{+0.0063}_{-0.0081}$	$0.02651^{+0.0053}_{-0.0056}$	4507
$t_{ m MMD}$	$  0.04425^{+0.019}_{-0.018}  $	$0.06215^{+0.017}_{-0.015}$	10204	$0.00923^{+0.0058}_{-0.0051}$	$0.01305^{+0.0053}_{-0.0044}$	11217
$t_{ m NPLM}$	$0.00573^{+0.0017}_{-0.0022}_{-0.00013}$	$\begin{array}{c} 0.007^{+0.0016}_{-0.0018} \\ 0.0003^{+0.00013}_{-0.00014} \end{array}$	15953	$0.00131^{+0.0005}_{-0.0006}$	$0.00161^{+0.00040}$	20295
$t_{ m LLR}$	$0.00573_{-0.0022} \\ 0.00021_{-0.00014}^{+0.00013}$		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)
$t_{ m SW}$	$\begin{array}{c} 0.02162^{+0.0056}_{-0.008} \\ 1.00146^{+0.00074}_{-0.00031} \end{array}$	$0.02935^{+0.0045}_{-0.0055}$	3410	$\begin{array}{c} 0.00581^{+0.0017}_{-0.0022} \\ 0.0004^{+0.00015}_{-0.00017} \end{array}$	$0.00798^{+0.0015}_{-0.0017}$	3157
$t_{\overline{ ext{KS}}}$	$1.00146^{+0.00074}_{-0.00031}$	$1.00238^{+0.00055}_{-0.00031}$	3967	$0.0004^{+0.00015}_{-0.00017}$	$0.00059^{+0.00013}_{-0.00014}$	3363
$t_{ m SKS}$	$0.02306^{+0.0071}_{-0.0088} \\ 0.00551^{+0.0015}_{-0.002}$	$0.03079_{-0.0072}^{+0.0062}$ $0.00748_{-0.0013}^{+0.0013}$	3553	$\begin{array}{c} -0.00317 \\ 0.0043^{+0.0009}_{-0.0013} \\ 0.00702^{+0.0021}_{-0.0028} \end{array}$	$0.00565^{+0.00074}_{-0.000}$	3193
$t_{ m FGD}$	$0.00551^{+0.0015}_{-0.002}$	$0.00748^{+0.0013}_{-0.0013}$	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	$0.00332^{+0.0018}_{-0.0017}$	$0.00467^{+0.0017}_{-0.0014}$	11801
$t_{ m NPLM}$	$0.0012^{+0.00039}_{-0.0005}$	$0.0015^{+0.00036}_{-0.0004}$	18640	$0.00049^{+0.00018}_{-0.00023}$	$0.0006^{+0.00017}_{-0.00018}$	26300
$t_{ m LLR}$	-	-	-	$2e - 05^{+1}_{-1}e^{-0.0023}_{-1}e^{-0.0023}_{-0.0023}$	$2e - 05^{+1e - 05}_{-1e - 05}$	6877
powdeformation			$\mathcal{N} ext{-deformation}$			
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	$0.19318^{+0.025}_{-0.039}$	$0.22704^{+0.019}_{-0.026}$	2403
$t_{\overline{ ext{KS}}}$	$0.00042^{+0.00015}_{-0.00018}$ $0.00441^{+0.00092}_{-0.0014}$	$0.00061^{+0.00013}_{-0.00015}$	3372	$\mid 0.00751^{+0.002}_{-0.0024} \mid$	$0.00993^{+0.0018}_{-0.002}$	2934
$t_{ m SKS}$	$0.00441^{+0.00092}_{-0.0014}$	$0.00574^{+0.00077}_{-0.00094}$	3324	$0.15874^{+0.023}_{-0.034}$	$0.18473^{+0.019}_{-0.023}$	2726
$t_{ m FGD}$	$0.00722^{+0.0021}_{-0.0027}$	$0.00987^{+0.0016}_{-0.0019}$	4892	$0.18095^{+0.023}_{-0.038}$	$0.21269_{-0.02}^{+0.016}$	3756
$t_{ m MMD}$	$0.00353^{+0.0016}_{-0.0015}$	$0.00494^{+0.0014}_{-0.0012}$	11418	$0.43531^{+0.066}_{-0.11}$	$0.51609_{-0.054}^{+0.045}$	8642
$t_{ m NPLM}$	$\begin{array}{c} -0.0013 \\ 0.00051^{+0.00014}_{-0.00018} \\ 2e - 05^{+1}_{-1}e - 05 \\ \end{array}$	$0.00063_{-0.00014}^{+0.00012} 2e - 05_{-1e-05}^{+1e-05}$	19802	$0.08319_{-0.023}^{+0.014}$	$0.09371^{+0.011}_{-0.015}$	13939
$t_{ m LLR}$			6991	-	-	_
$\mathcal{U} ext{-deformation}$			Timing			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$t^{\text{null}}$ (s)		
$t_{ m SW}$	$0.33394^{+0.044}_{-0.068}$	$0.39248^{+0.033}_{-0.044}$ $0.01575^{+0.0027}_{-0.003}$ $0.3188^{+0.033}_{-0.04}$ $0.36919^{+0.027}_{-0.036}$	<b>2354</b>	338		
$t_{\overline{\mathrm{KS}}}$	$0.01211^{+0.003}_{-0.0035}$	$0.01575^{+0.0027}_{-0.003}$	2835	155		
$t_{ m SKS}$	$0.27395^{+0.041}_{-0.050}$	$0.3188^{+0.033}_{-0.04}$	2601	509		
$t_{ m FGD}$	$0.31409_{-0.07}^{-0.033}$	$0.36919^{+0.027}_{-0.036}$	3643	2795		
$t_{ m MMD}$	$0.75353_{-0.18}^{+0.12}$	$0.89336_{-0.098}^{+0.098}$	7700	13860		
$t_{ m NPLM}$	$0.144^{+0.025}_{-0.039}$	$0.16221^{+0.019}_{-0.026}$	13245	22883		
$t_{ m LLR}$	_	_	_	_		