MoG model with d = 20, q = 5, and n = m = 10^4

	μ-deformation			Σ_{ii}-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)
t_{SW}	$0.10336^{+0.043}_{-0.05}$	$0.14324^{+0.041}_{-0.042}$	2857	$0.03566^{+0.012}_{-0.016}$	$0.05015^{+0.011}_{-0.012}$	3009
$t_{\overline{\text{KS}}}$	$\mathbf{0.01015^{+0.0036}_{-0.0047}}$	$\mathbf{0.01446^{+0.003}_{-0.0037}}$	2986	$\mathbf{0.00383^{+0.0013}_{-0.0018}}$	$\mathbf{0.00553^{+0.0011}_{-0.0014}}$	4100
t_{SKS}	$0.077^{+0.028}_{-0.035}$	$0.10525^{+0.026}_{-0.028}$	2895	$0.02882^{+0.0073}_{-0.011}$	$0.03931^{+0.0061}_{-0.0077}$	3084
t_{FGD}	$0.11749^{+0.064}_{-0.065}$	$0.16099^{+0.058}_{-0.051}$	**2648**	$0.03943^{+0.015}_{-0.02}$	$0.05428^{+0.012}_{-0.013}$	**2802**
t_{MMD}	$0.09451^{+0.053}_{-0.049}$	$0.13746^{+0.048}_{-0.041}$	2986	$0.01941^{+0.014}_{-0.011}$	$0.02836^{+0.013}_{-0.0099}$	3318
t_{LLR}	$0.00045^{+0.00029}_{-0.0003}$	$0.00063^{+0.0003}_{-0.00029}$	4508	$0.00019^{+0.00011}_{-0.00011}$	$0.00025^{+0.00011}_{-0.00011}$	4775

	$\Sigma_{i\neq j}$-deformation			pow_+-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)
t_{SW}	$0.04538^{+0.014}_{-0.021}$	$0.06378^{+0.011}_{-0.014}$	**3377**	$0.01246^{+0.0042}_{-0.0056}$	$0.01744^{+0.0037}_{-0.0043}$	3165
$t_{\overline{\text{KS}}}$	$1.00339^{+0.002}_{-0.0033}$	$1.00597^{+0.00086}_{-0.0022}$	3500	$\mathbf{0.0009^{+0.00037}_{-0.00045}}$	$\mathbf{0.00135^{+0.00036}_{-0.0004}}$	3352
t_{SKS}	$0.04754^{+0.018}_{-0.023}$	$0.06609^{+0.016}_{-0.019}$	3460	$0.00964^{+0.0022}_{-0.0036}$	$0.0128^{+0.0018}_{-0.0023}$	3235
t_{FGD}	$\mathbf{0.01177^{+0.0039}_{-0.0057}}$	$\mathbf{0.01637^{+0.0032}_{-0.0037}}$	4588	$0.01467^{+0.0048}_{-0.0071}$	$0.02004^{+0.0038}_{-0.0045}$	**3053**
t_{MMD}	$0.03683^{+0.022}_{-0.019}$	$0.05299^{+0.02}_{-0.016}$	3815	$0.00694^{+0.0043}_{-0.0038}$	$0.01013^{+0.0039}_{-0.0032}$	3484
t_{LLR}	-	-	-	$4e-05^{+2e-05}_{-2e-05}$	$5e-05^{+3e-05}_{-2e-05}$	5090

	pow_--deformation			$\mathcal{N}$-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)
t_{SW}	$0.01291^{+5}_{-0.0058}$	$0.01815^{+5}_{-0.0044}$	**2868**	$0.28537^{+0.045}_{-0.078}$	$0.34154^{+0.036}_{-0.047}$	2665
$t_{\overline{\text{KS}}}$	$\mathbf{0.00086^{+0.00038}_{-0.00044}}$	$\mathbf{0.00131^{+0.00036}_{-0.0004}}$	3366	$\mathbf{0.01343^{+0.0054}_{-0.0059}}$	$\mathbf{0.01949^{+0.0055}_{-0.0056}}$	2995
t_{SKS}	$0.00941^{+0.0025}_{-0.0038}$	$0.01264^{+0.002}_{-0.0026}$	3294	$0.23623^{+0.041}_{-0.066}$	$0.28319^{+0.034}_{-0.043}$	2697
t_{FGD}	$0.01513^{+0.005}_{-0.0072}$	$0.02076^{+0.004}_{-0.0046}$	3177	$0.26462^{+0.041}_{-0.074}$	$0.31263^{+0.027}_{-0.037}$	2633
t_{MMD}	$0.00757^{+0.0046}_{-0.004}$	$0.01111^{+0.0041}_{-0.0034}$	3434	$0.63143^{+0.1}_{-0.17}$	$0.75933^{+0.072}_{-0.081}$	**2412**
t_{LLR}	$3e-05^{+2e-05}_{-2e-05}$	$4e-05^{+3e-05}_{-2e-05}$	5062	-	-	-

	$\mathcal{U}$-deformation			Timing		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	t^{null} (s)		
t_{SW}	$0.49337^{+0.08}_{-0.13}$	$0.58844^{+0.061}_{-0.077}$	2579	276		
$t_{\overline{\text{KS}}}$	$\mathbf{0.02061^{+0.0077}_{-0.0085}}$	$\mathbf{0.02948^{+0.0081}_{-0.008}}$	2893	**109**		
t_{SKS}	$0.40577^{+0.074}_{-0.11}$	$0.48809^{+0.06}_{-0.075}$	2643	351		
t_{FGD}	$0.45746^{+0.072}_{-0.13}$	$0.54235^{+0.048}_{-0.065}$	2641	550		
t_{MMD}	$1.09848^{+0.17}_{-0.28}$	$1.32688^{+0.11}_{-0.15}$	**2438**	272		
t_{LLR}	-	-	-	-		