

MoG model with $d = 100$ , $q = 10$ , and $n = m = 5 \cdot 10^4$						
$\mu$ -deformation				$\Sigma_{ii}$ -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{SW}$	$0.03998^{+0.011}_{-0.013}$	$0.05217^{+0.01}_{-0.012}$	<b>836</b>	$0.01323^{+0.0032}_{-0.0041}$	$0.01718^{+0.0028}_{-0.0032}$	<b>907</b>
$t_{\overline{KS}}$	<b><math>0.00299^{+0.001}_{-0.0011}</math></b>	<b><math>0.00425^{+0.001}_{-0.001}</math></b>	915	<b><math>0.00071^{+0.00029}_{-0.00028}</math></b>	<b><math>0.00105^{+0.00031}_{-0.00029}</math></b>	1002
$t_{SKS}$	$0.0331^{+0.0083}_{-0.0097}$	$0.04324^{+0.0076}_{-0.0082}$	1012	$0.01187^{+0.002}_{-0.0028}$	$0.0151^{+0.0016}_{-0.002}$	1099
$t_{FGD}$	$0.05672^{+0.017}_{-0.018}$	$0.07296^{+0.015}_{-0.015}$	10126	$0.01849^{+0.0042}_{-0.0051}$	$0.0235^{+0.0033}_{-0.0039}$	8804
$t_{MMD}$	$0.05034^{+0.011}_{-0.013}$	$0.06423^{+0.0092}_{-0.01}$	9640	$0.0101^{+0.0028}_{-0.003}$	$0.01277^{+0.0026}_{-0.0026}$	9030
$t_{LLR}$	$4e - 05^{+2e-05}_{-3e-05}$	$5e - 05^{+3e-05}_{-2e-05}$	12683	$1e - 05^{+0}_{-1e-05}$	$1e - 05^{+1e-05}_{-0}$	13707
$\Sigma_{i \neq j}$ -deformation				pow $_+$ -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{pow_+}$	$t$ (s)
$t_{SW}$	$0.00391^{+0.0008}_{-0.0011}$	$0.00499^{+0.00071}_{-0.00081}$	<b>14744</b>	$0.00526^{+0.0013}_{-0.0016}$	$0.00684^{+0.0011}_{-0.0013}$	<b>921</b>
$t_{\overline{KS}}$	$1.00061^{+0.00085}_{-0.00037}$	$1.00125^{+0.00021}_{-0.00027}$	21022	<b><math>0.00026^{+0.00011}_{-0.00011}</math></b>	<b><math>0.00039^{+0.00013}_{-0.00012}</math></b>	1081
$t_{SKS}$	$0.0029^{+0.00069}_{-0.00091}$	$0.0038^{+0.00071}_{-0.00069}$	16191	$0.00478^{+0.00081}_{-0.0011}$	$0.00605^{+0.00062}_{-0.00075}$	1123
$t_{FGD}$	<b><math>0.0023^{+0.0005}_{-0.0006}</math></b>	<b><math>0.0029^{+0.0004}_{-0.0005}</math></b>	30497	$0.00731^{+0.0016}_{-0.0019}$	$0.00933^{+0.0013}_{-0.0015}$	9507
$t_{MMD}$	$0.0056^{+0.0014}_{-0.0015}$	$0.00709^{+0.0013}_{-0.0012}$	25476	$0.00365^{+0.001}_{-0.0011}$	$0.00462^{+0.00093}_{-0.00092}$	9688
$t_{LLR}$	$0.01403^{+0.0046}_{-0.0055}$	$0.01704^{+0.0045}_{-0.0049}$	26962	$0.0^{+0}_{-0}$	$0.0^{+1e-05}_{-0}$	16259
pow $_-$ -deformation				$\mathcal{N}$ -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{pow_-}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{\mathcal{N}}$	$t$ (s)
$t_{SW}$	$0.00536^{+5}_{-0.0016}$	$0.00698^{+5}_{-0.0013}$	<b>717</b>	$0.20881^{+0.023}_{-0.035}$	$0.2389^{+0.017}_{-0.023}$	<b>634</b>
$t_{\overline{KS}}$	<b><math>0.00026^{+0.00011}_{-0.00011}</math></b>	<b><math>0.00039^{+0.00013}_{-0.00011}</math></b>	1096	<b><math>0.0089^{+0.0037}_{-0.0043}</math></b>	<b><math>0.01341^{+0.0034}_{-0.0038}</math></b>	969
$t_{SKS}$	$0.0047^{+0.00077}_{-0.0011}$	$0.00595^{+0.00061}_{-0.0007}$	1128	$0.18004^{+0.021}_{-0.031}$	$0.20733^{+0.018}_{-0.023}$	942
$t_{FGD}$	$0.00731^{+0.0016}_{-0.002}$	$0.00937^{+0.0014}_{-0.0015}$	9183	$0.18738^{+0.021}_{-0.029}$	$0.21173^{+0.016}_{-0.017}$	7138
$t_{MMD}$	$0.00367^{+0.00095}_{-0.001}$	$0.00469^{+0.00086}_{-0.00084}$	9701	$0.80488^{+0.074}_{-0.11}$	$0.90321^{+0.055}_{-0.068}$	6223
$t_{LLR}$	$0.0^{+0}_{-0}$	$0.0^{+1e-05}_{-0}$	15658	-	-	-
$\mathcal{U}$ -deformation				Timing		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{\mathcal{U}}$	$t$ (s)	$t^{\text{null}}$ (s)		
$t_{FGD}$	$0.32329^{+0.035}_{-0.048}$	$0.36745^{+0.025}_{-0.033}$	6909	13787		
$t_{LLR}$	-	-	-	-		
$t_{MMD}$	$1.39527^{+0.12}_{-0.19}$	$1.56573^{+0.096}_{-0.12}$	6920	14553		
$t_{SKS}$	$0.31042^{+0.037}_{-0.056}$	$0.35749^{+0.03}_{-0.038}$	929	903		
$t_{SW}$	$0.36179^{+0.04}_{-0.06}$	$0.41391^{+0.029}_{-0.04}$	<b>622</b>	<b>381</b>		
$t_{\overline{KS}}$	<b><math>0.01367^{+0.0059}_{-0.0069}</math></b>	<b><math>0.02063^{+0.0056}_{-0.0059}</math></b>	953	731		