$\begin{tabular}{ll} \hline MoG model with $d=100$, $q=10$, and $n=m=5\cdot 10^4$ \\ \hline \end{tabular}$						
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.03998^{+0.011}_{-0.013}$	$0.05217^{+0.01}_{-0.012}$	836	$0.01323^{+0.0032}_{-0.0041}$	$0.01718^{+0.0028}_{-0.0032}$	907
$t_{\overline{ ext{KS}}}$	$0.00299^{+0.001}$	$0.00425^{+0.001}_{-0.001}$	915	$0.00071^{+0.00029}_{-0.00028}$	$0.00105^{+0.00031}_{-0.00029}$	1002
$t_{ m SKS}$	$0.0331^{+0.0083}_{-0.0097}$	$0.04324^{+0.0076}_{-0.0082}$	1012	$0.01187^{+0.002}_{-0.0028}$	$0.0151^{+0.0016}_{-0.002}$	1099
$t_{ m FGD}$	0 0E679±0.017	$\begin{array}{c} -0.0022 \\ 0.07296 \begin{array}{c} -0.015 \\ -0.015 \\ 0.06423 \begin{array}{c} +0.0092 \\ -0.01 \end{array} \end{array}$	10126	$\begin{array}{c} 0.01187^{+0.002}_{-0.0028} \\ 0.01849^{+0.0042}_{-0.0051} \\ \end{array}$	$0.0151^{+0.0016}_{-0.002} \\ 0.0235^{+0.0033}_{-0.0039} $	8804
$t_{ m MMD}$	$\begin{bmatrix} 0.05072_{-0.018} \\ 0.05034_{-0.013}^{+0.011} \end{bmatrix}$	$0.06423^{+0.0092}_{-0.01}$	9640	$0.0101^{+0.0028}$	$0.01277^{+0.0026}_{-0.0026}$	9030
$t_{ m LLR}$	$4e - 05^{+2e - 05}_{-3e - 05}$	$5e - 05^{-0.01}_{-2e-05}$	12683	$1e - 05^{+0}_{-1e - 05}$	$1e - 05^{+1}_{-0} = 000$	13707
$\Sigma_{i \neq j}$ -deformation			pow_+ -deformation			
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$\begin{array}{c} 0.0243^{+0.0056}_{-0.0075} \\ 1.00061^{+0.00085}_{-0.00037} \end{array}$	$0.0317^{+0.0046}_{-0.0055}$	3349	$0.00526^{+0.0013}_{-0.0016}$	$0.00684^{+0.0011}_{-0.0013}$	$\boldsymbol{921}$
$t_{\overline{ ext{KS}}}$	$1.00061_{-0.00037}^{+0.00085}$	$1.00125^{+0.00021}_{-0.00027}$	9029	$0.00026^{+0.00011}_{-0.00011}$	$0.00039^{+0.00013}$	1081
$t_{ m SKS}$	$\begin{array}{c} -0.00031 \\ 0.02643^{+0.0064}_{-0.0078} \\ 0.00431^{+0.00099}_{-0.0011} \end{array}$	$\begin{array}{c} -0.0027 \\ 0.03469 ^{+0.0055} \\ -0.0064 \\ \textbf{0.00562} ^{+0.00081} \\ -0.0009 \\ 0.02268 ^{+0.0042} \\ \end{array}$	3678	$\begin{array}{c} -0.00011 \\ 0.00478^{+0.00081}_{-0.0011} \\ 0.00731^{+0.0016}_{-0.0019} \end{array}$	$\begin{array}{c} 0.00605^{+0.00062}_{-0.00075} \\ 0.00605^{+0.00075}_{-0.00075} \\ 0.00933^{+0.0013}_{-0.0015} \\ 0.00462^{+0.00093}_{-0.00092} \\ 0.0^{+1e-05}_{-0} \end{array}$	1123
$t_{ m FGD}$	$\left \begin{array}{c} 0.00431^{+0.00099}_{-0.0011} \end{array} \right $	$0.00562^{+0.00081}_{-0.0009}$	14614	$0.00731^{+0.0016}_{-0.0019}$	$0.00933^{+0.0013}_{-0.0015}$	9507
$t_{ m MMD}$	$0.01779^{+0.0044}_{-0.0048}$	$0.02268^{+0.0042}_{-0.004}$	12678	$\begin{array}{c} 0.00731_{-0.0019} \\ 0.00365_{-0.0011}^{+0.001} \end{array}$	$0.00462^{+0.00093}_{-0.00092}$	9688
$t_{ m LLR}$	-	-	-	0.0^{+0}_{-0}	0.0_{-0}^{+1e-05}	16259
$pow\deformation$			$\mathcal{N} ext{-} ext{deformation}$			
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.00536^{+5}_{-0.0016}$	$0.00698^{+5}_{-0.0013}$	717	$0.20881^{+0.023}_{-0.035}$	$0.2389^{+0.017}_{-0.023}$	634
$t_{\overline{ ext{KS}}}$	$0.00026^{+0.00011}$	$0.00039^{+0.00013}_{-0.00011}$	1096	$0.0089^{+0.0037}_{-0.0042}$	$0.01341^{+0.0034}_{-0.0038}$	969
$t_{ m SKS}$	$0.0047^{+0.00077}_{-0.0011}$	$0.00595^{+0.00061}_{-0.0007}$	1128	$0.18004^{+0.021}_{-0.031}$	$0.20733^{+0.018}_{-0.023}$	942
$t_{ m FGD}$	$ \begin{array}{c} 0.00731^{+0.0016}_{-0.002} \\ 0.00367^{+0.00095}_{-0.001} \end{array} $	$\begin{array}{c} 0.00937^{+0.0014}_{-0.0015} \\ 0.00469^{+0.00086}_{-0.00084} \end{array}$	9183	$0.18738^{+0.021}_{-0.020}$	$0.21173^{+0.016}_{-0.017}$	7138
$t_{ m MMD}$	$0.00367^{+0.00095}_{-0.001}$	$0.00469^{+0.00086}_{-0.00084}$	9701	$0.80488^{+0.074}_{-0.11}$	$0.90321_{-0.068}^{+0.055}$	6223
$t_{ m LLR}$	0.0^{+0}_{-0}	0.0_{-0}^{+1e-05}	15658	-	-	_
$\mathcal{U} ext{-} ext{deformation}$				Timing		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$t_{ m SW}$	$\begin{array}{c} 0.36179^{+0.04}_{-0.06} \\ \textbf{0.01367}^{+0.0059}_{-0.0069} \\ 0.31042^{+0.037}_{-0.056} \\ 0.32329^{+0.035}_{-0.048} \end{array}$	$\begin{array}{c} 0.41391^{+0.029}_{-0.04} \\ 0.02063^{+0.0056}_{-0.0059} \\ 0.35749^{+0.03}_{-0.038} \end{array}$	622	381		
$t_{\overline{ ext{KS}}}$	$0.01367^{+0.0059}_{-0.0069}$	$0.02063_{-0.0059}^{+0.0056}$	953	731		
$t_{ m SKS}$	$0.31042^{+0.037}_{-0.056}$	$0.35749_{-0.038}^{+0.03}$	929	903		
$t_{ m FGD}$	$0.32329^{+0.035}_{-0.048}$	$0.36745^{+0.025}_{-0.033}$	6909	13787		
$t_{ m MMD}$	$1.39527_{-0.19}^{+0.12}$	$1.56573_{-0.12}^{+0.096}$	6920	14553		
$t_{ m LLR}$	_	-	-	-		