$n=m=10^4$						
	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)
$t_{ m LLR}$	$4e - 05^{+2e - 05}_{-3e - 05}$	$5e - 05^{+3e - 05}_{-2e - 05}$	12682	$1e - 05^{+0}_{-1e-05}$	$1e - 05^{+1e - 05}_{-0}$	13706
\overline{D}	$0.00299^{+0.001}_{-0.0011}$	$0.00425^{+0.001}_{-0.001}$	914	$0.00071^{+0.00029}_{-0.00028}$	$0.00105^{+0.00031}_{-0.00029}$	1001
\widetilde{D}	$0.0331^{+0.0083}_{-0.0097}$	$0.04324^{+0.0076}_{-0.0082}$	1011	$0.01187^{+0.002}_{-0.0028}$	$0.0151^{+0.0016}_{-0.002}$	1098
\widetilde{W}	$0.03998^{+0.011}_{-0.013}$	$0.05217^{+0.01}_{-0.012}$	835	$0.01323^{+0.0032}_{-0.0041}$	$0.01718^{+0.0028}_{-0.0032}$	906
$d_{\mathrm{MMD}_u^2}$	$0.05034_{-0.013}^{+0.011}$	$0.06423^{+0.0092}_{-0.01}$	9638	$0.0101^{+0.0028}_{-0.003}$	$0.01277^{+0.0026}_{-0.0026}$	9028
$d_{\mathrm{FGD}_{\infty}}$	$0.05672^{+0.017}_{-0.018}$	$0.07296^{+0.015}_{-0.015}$	10125	$0.01849^{+0.0042}_{-0.0051}$	$0.0235^{+0.0033}_{-0.0039}$	8804
$\Sigma_{i \neq j}$ -deformation			pow_+ -deformation			
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	0.0_{-0}^{+0}	0.0_{-0}^{+0}	17314	0.0^{+0}_{-0}	0.0_{-0}^{+1e-05}	16258
\overline{D}	$0.00025^{+9e-05}_{-0.00011}$	$0.00037^{+9e-05}_{-0.0001}$	1091	$0.00026^{+0.00011}_{-0.00011}$	$0.00039^{+0.00013}_{-0.00012}$	1080
\widetilde{D}	$\begin{array}{c} 0.00188^{+0.00049}_{-0.00059} \\ 0.00212^{+0.0005}_{-0.00059} \end{array}$	$0.00249^{+0.00043}_{-0.00051}$	1201	$ \begin{array}{c} 0.00478^{+0.00081}_{-0.0011} \\ 0.00731^{+0.0016}_{-0.0019} \end{array} $	$\begin{array}{c} 0.00605^{+0.00062}_{-0.00075} \\ 0.00933^{+0.0013}_{-0.0015} \end{array}$	1122
$\widetilde{d}_{\mathrm{FGD}_{\infty}}$	$0.00212^{+0.0005}_{-0.00059}$	$0.00249^{+0.0005}_{-0.0004}$ $0.00274^{+0.00041}_{-0.00046}$	9776	$0.00731^{+0.0016}_{-0.0019}$	$0.00933^{+0.0013}_{-0.0015}$	9505
\widetilde{W}	$0.00274^{+0.00055}_{-0.00076}$	$0.00353^{+0.00047}_{-0.00057}$	987	$0.00526^{+0.0013}_{-0.0016}$	$0.00684^{+0.0011}_{-0.0013}$	921
$d_{\mathrm{MMD}_u^2}$	$0.00408^{+0.00088}_{-0.001}$	$0.0052^{+0.00075}_{-0.00082}$	9700	$0.00365^{+0.001}_{-0.0011}$	$0.00462^{+0.00093}_{-0.00092}$	9688
	$pow\deformation$			\mathcal{N} -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	0.0^{+0}_{-0}	0.0_{-0}^{+1e-05}	15657	NaN	NaN	NaN
\overline{D}	$0.00026^{+0.00011}_{-0.00011}$	$0.00039^{+0.00013}_{-0.00011}$	1095	$\begin{array}{c} 0.0089^{+0.0037}_{-0.0043} \\ 0.80488^{+0.074}_{-0.11} \end{array}$	$0.01341^{+0.0034}_{-0.0038}$	9.7e + 02
$d_{ ext{MMD}_u^2} \ \widetilde{D}$	$0.00367^{+0.00095}_{-0.001}$	$0.00469^{+0.00086}_{-0.00084}$	9699	$0.80488^{+0.074}_{-0.11}$	$0.90321^{+0.055}_{-0.068}$	6.2e + 03
	$0.0047^{+0.00077}_{-0.0011}$	$0.00595^{+0.00061}_{-0.0007}$	1126	$0.18004^{+0.021}_{-0.031}$	$0.20733^{+0.018}_{-0.023}$	9.4e + 02
\widetilde{W}	$\begin{array}{c} -0.0011 \\ 0.00536^{+5}_{-0.0016} \\ 0.00731^{+0.0016}_{-0.002} \end{array}$	$0.00698^{+5}_{-0.0013}$	716	$0.20881^{+0.023}_{-0.035}$	$0.2389^{+0.017}_{-0.023} \\ 0.21173^{+0.016}_{-0.017}$	6.3e + 02
$d_{\mathrm{FGD}_{\infty}}$	$0.00731^{+0.0016}_{-0.002}$	$0.00937^{+0.0014}_{-0.0015}$	9182	$0.18738^{+0.021}_{-0.029}$	$0.21173^{+0.016}_{-0.017}$	7.1e+03
$\mathcal{U} ext{-deformation}$				Timing		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$d_{\mathrm{FGD}_{\infty}}$	$0.32329^{+0.035}_{-0.048}$	$0.36745^{+0.025}_{-0.033}$	6.9e + 03	13787		
\overline{D}	$0.01367^{+0.0059}_{-0.0069}$	$0.02063^{+0.0056}_{-0.0059}$	9.5e + 02	731		
$\frac{d_{\mathrm{MMD}_{u}^{2}}}{\widetilde{D}}$	$1.39527_{-0.19}^{+0.12}$	$1.56573_{-0.12}^{+0.096}$	6.9e + 03	14553		
	$0.31042^{+0.037}_{-0.056}$	$0.35749^{+0.03}_{-0.038}$	9.3e + 02	903		
\widetilde{W}	$0.36179_{-0.06}^{+0.04}$	$0.41391^{+0.029}_{-0.04}$	6.2e + 02	381		
$t_{ m LLR}$	NaN	NaN	NaN	-		