$n=m=10^4$						
	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)
$t_{ m LLR}$	$0.00078^{+0.00047}_{-0.00047}$	$0.0011^{+0.00047}_{-0.00047}$	2809	$0.00027^{+0.00016}_{-0.00016}$	$0.00037^{+0.00017}_{-0.00016}$	2999
\overline{D}	$0.00496^{+0.0017}_{-0.0017}$	$\begin{array}{c} 0.0011^{+0.00047}_{-0.00047} \\ 0.00664^{+0.0015}_{-0.0017} \end{array}$	1538	$0.00274^{+0.00063}_{-0.00069}$	$0.00353^{+0.00059}_{-0.00064}$	1625
\widetilde{D}	$0.05494^{+0.019}_{-0.019}$	0.07949 ± 0.018	1747	$0.01644^{+0.0038}_{-0.0045}$	$0.02223^{+0.0033}_{-0.0038}$	1886
$d_{\mathrm{MMD}_{u}^{2}}$	$0.06434_{-0.025}^{+0.035}$	$0.07242_{-0.018} \ 0.08544_{-0.025}^{+0.033}$	1344	$0.01392^{+0.0054}_{-0.0046}$	$0.0188^{+0.005}_{-0.0044}$	1496
\widetilde{W}	$0.09192^{+0.035}_{-0.035}$	$0.12363^{+0.035}_{-0.032}$	1352	$0.03015^{+0.0085}_{-0.0099}$	$0.04164^{+0.0081}_{-0.0086}$	1531
$d_{\mathrm{FGD}_{\infty}}$	$0.10354_{-0.044}^{+0.06}$	$0.14117^{+0.056}_{-0.042}$	1276	$0.0327^{+0.0099}_{-0.01}$	$0.0444^{+0.0077}_{-0.0077}$	1269
	$\Sigma_{i\neq j}$ -deformation			pow_+ -deformation		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	$6e - 05^{+3e - 05}_{-3e - 05}$	$\begin{array}{c} 8e - 05 ^{+4e - 05}_{-3e - 05} \\ 0.00127 ^{+0.00027}_{-0.00027} \end{array}$	2671	$ \begin{array}{c} 0.00041^{+0.00025}_{-0.00025} \\ 0.00345^{+0.00099}_{-0.0011} \end{array} $	$\begin{array}{c} 0.00057^{+0.00025}_{-0.00025} \\ 0.00444^{+0.00096}_{-0.00097} \end{array}$	3016
\overline{D}	$0.00096^{+0.00028}_{-0.00027}$	$0.00127^{+0.00027}_{-0.00027}$	1324	$0.00345^{+0.00099}_{-0.0011}$	$0.00444^{+0.00096}_{-0.00097}$	1611
\widetilde{D}	$0.00654^{+0.0018}_{-0.002}$	$\begin{array}{c} 0.00913^{+0.0017}_{-0.0018} \\ 0.01363^{+0.0041}_{-0.0037} \end{array}$	1659	$\begin{array}{c} 0.0106^{+0.0024}_{-0.0027} \\ 0.00788^{+0.0032}_{-0.0027} \end{array}$	$\begin{array}{c} 0.01405^{+0.0021}_{-0.0023} \\ 0.01064^{+0.003}_{-0.0024} \end{array}$	1807
$d_{\mathrm{MMD}_u^2}$	$0.00961^{+0.0045}_{-0.0038}$	$0.01363^{+0.0041}_{-0.0037}$	1170	$0.00788^{+0.0032}_{-0.0027}$	$0.01064^{+0.003}_{-0.0024}$	1517
\widetilde{W}	$0.01167^{+0.0033}_{-0.0039}$	$0.01668^{+0.0029}_{-0.0034}$	934	$0.01845^{+0.0052}_{-0.0061}$	$0.0255^{+0.0047}_{-0.0053}$	1258
$d_{\mathrm{FGD}_{\infty}}$	$0.0122^{+0.0027}_{-0.0033}$	$0.01668_{-0.0034}^{+0.0034} \\ 0.01714_{-0.0026}^{+0.0023}$	1002	$0.01964^{+0.0054}_{-0.006}$	$0.02668_{-0.0048}^{+0.0046}$	1293
$pow\deformation$			$\mathcal{N} ext{-deformation}$			
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	$0.00036^{+0.00025}_{-0.00025}$	$0.00053^{+0.00025}_{-0.00025}$	3138	NaN	NaN	NaN
\overline{D}	$0.00317^{+0.0009}_{-0.00089}$	$0.00416^{+0.0009}_{-0.00083}$	1633	$0.00921^{+0.0016}_{-0.0017}$	$0.01112^{+0.0016}_{-0.0016}$	1.5e + 03
$d_{ ext{MMD}_u^2} \ \widetilde{D}$	$0.00858^{+0.0037}_{-0.0032}$	$0.01169^{+0.0034}_{-0.003}$	1549	$0.37502^{+0.046}_{-0.064}$	$0.43162^{+0.041}_{-0.039}$	1.2e + 03
	$0.01066^{+0.0023}_{-0.0027}$	$0.01407^{+0.0021}_{-0.0022}$	1803	$0.18137^{+0.025}_{-0.036}$	$0.21312^{+0.023}_{-0.025}$	1.6e + 03
\widetilde{W}	$0.01989^{+0.0056}_{-0.0064}$	$0.0273^{+0.0052}_{-0.0055}$	1220	$0.25306^{+0.031}_{-0.043}$	$\begin{array}{c} 0.29897^{+0.026}_{-0.029} \\ 0.34516^{+0.022}_{-0.026} \end{array}$	1e + 03
$d_{\mathrm{FGD}_{\infty}}$	$\begin{array}{c} 0.01989^{+0.0036}_{-0.0064} \\ 0.02088^{+0.0059}_{-0.0061} \end{array}$	$0.02847_{-0.005}^{+0.005}$	1299	$0.29378_{-0.045}^{+0.029}$	$0.34516^{+0.022}_{-0.026}$	1.1e+03
$\mathcal{U} ext{-} ext{deformation}$				Timing		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$d_{\mathrm{FGD}_{\infty}}$	$0.50798^{+0.053}_{-0.076}$	$0.59684^{+0.038}_{-0.049}$	1e+03	368		
\overline{D}	$0.01504^{+0.0026}_{-0.0027}$	$0.01804^{+0.0022}_{-0.0026}$	1.5e + 03	37		
$\frac{d_{\mathrm{MMD}_{u}^{2}}}{\widetilde{D}}$	$0.64544^{+0.087}_{-0.099}$	$0.7501^{+0.064}_{-0.067}$	1.2e + 03	215		
	$0.30846^{+0.044}_{-0.057}$	$0.36537^{+0.036}_{-0.045}$	1.5e + 03	352		
\widetilde{W}	$0.4365^{+0.054}_{-0.078}$	$0.51675^{+0.039}_{-0.053}$	9.9e + 02	261		
$t_{ m LLR}$	NaN	NaN	NaN	-		