$n=m=10^4$						
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	$9e - 05^{+6e-05}_{-6e-05}$	$0.00012^{+6e-05}_{-6e-05}$	3223	$2e - 05^{+1}_{-1}e^{-05}_{-05}$	$2e - 05^{+2e - 05}_{-1e - 05}$	3498
\overline{D}	$0.00787^{+0.0031}_{-0.0029}$	$\begin{array}{c} 0.00012^{+6e-05}_{-6e-05} \\ 0.01207^{+0.0034}_{-0.0032} \end{array}$	1243	$\begin{array}{c} 2e - 05^{+1e - 05}_{-1e - 05} \\ 0.00217^{+0.0011}_{-0.00099} \end{array}$	$0.00375^{+0.0011}_{-0.0012}$	1388
\widetilde{D}	$0.07672^{+0.018}_{-0.021}$	$0.10153^{+0.016}_{-0.018}$	686	$0.02687^{+0.0041}_{-0.0056}$	$0.0345^{+0.0036}_{-0.004}$	735
\widetilde{W}	$0.09504^{+0.024}_{-0.028}$	$0.12338^{+0.023}_{-0.024} \\ 0.14183^{+0.023}_{-0.026}$	647	$0.03044^{+0.0066}_{-0.0084}$	$\begin{array}{c} 0.03963^{+0.0061}_{-0.0067} \\ 0.02757^{+0.0062}_{-0.0064} \end{array}$	709
$d_{\mathrm{MMD}_u^2}$	$0.10962^{+0.028}_{-0.035}$	$0.14183^{+0.023}_{-0.026}$	1349	$0.02117^{+0.007}_{-0.0078}$	$0.02757^{+0.0062}_{-0.0064}$	1535
$d_{\mathrm{FGD}_{\infty}}$	$0.13134^{+0.032}_{-0.034}$	$0.16599^{+0.028}_{-0.028}$	2714	$0.04142^{+0.0081}_{-0.01}$	$0.05232^{+0.0067}_{-0.0074}$	2953
	$\Sigma_{i\neq j}$ -deformation			pow_+ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	0.0_{-0}^{+0}	0.0_{-0}^{+0}	4353	$1e - 05^{+0}_{-1e - 05} 0.00084^{+0.00043}_{-0.00041}$	$1e - 05^{+0}_{-1e - 05} 0.00144^{+0.00041}_{-0.00045}$	3841
\overline{D}	$0.00078^{+0.00027}_{-0.00031}$	$0.00117^{+0.00028}_{-0.00029}$	1427	$0.00084_{-0.00041}^{+0.00043}$	$0.00144^{+0.00041}_{-0.00045}$	1466
\widetilde{D}	$\begin{array}{c} 0.00444^{+0.0011}_{-0.0013} \\ 0.00505^{+0.00098}_{-0.0012} \end{array}$	$\begin{array}{c} 0.00592^{+0.00098}_{-0.001} \\ 0.00646^{+0.00087}_{-0.00098} \end{array}$	820	$\begin{array}{c} 0.01088^{+0.0016}_{-0.0021} \\ 0.01638^{+0.0032}_{-0.0039} \end{array}$	$0.0139^{+0.0013}_{-0.0015} \\ 0.02069^{+0.0027}_{-0.003}$	771
$d_{\mathrm{FGD}_{\infty}}$	$0.00505^{+0.00098}_{-0.0012}$	$0.00646^{+0.00087}_{-0.00098}$	3325	$0.01638^{+0.0032}_{-0.0039}$	$0.02069^{+0.0027}_{-0.003}$	2488
\widetilde{W}	$0.00635^{+0.0011}_{-0.0015}$	$0.00825^{+0.00096}_{-0.0011}$	769	$0.01206^{+0.0028}_{-0.0033}$	$0.01579^{+0.0023}_{-0.0028}$	729
$d_{\mathrm{MMD}_u^2}$	$0.00903^{+0.0022}_{-0.0026}$	$0.01168^{+0.0019}_{-0.002}$	1524	$0.00761^{+0.0026}_{-0.0028}$	$0.00988^{+0.0023}_{-0.0023}$	1237
	$pow\deformation$			$\mathcal{N} ext{-deformation}$		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m LLR}$	$1e - 05^{+0}_{-1e-05} 0.00086^{+0.00044}_{-0.00043}$	$1e - 05^{+0}_{-1e - 05} 0.00147^{+0.00042}_{-0.00047} 0.01083^{+0.002}_{-0.0021}$	4902	NaN	NaN	NaN
\overline{D}	$0.00086^{+0.00044}_{-0.00043}$	$0.00147^{+0.00042}_{-0.00047}$	1541	$0.02563^{+0.0081}_{-0.0097}$	$0.03668^{+0.0078}_{-0.008}$	6.5e + 02
$\frac{d_{\mathrm{MMD}_{u}^{2}}}{\widetilde{D}}$	$0.00834^{+0.0023}_{-0.0025}$	$0.01083^{+0.002}_{-0.0021}$	1256	$1.17867^{+0.13}_{-0.19}$	$1.33971_{-0.12}^{+0.09}$	7.3e + 02
	$0.01077^{+0.0016}_{-0.0021}$	$0.01376^{+0.0013}_{-0.0015}$	785	$0.27956^{+0.034}_{-0.043}$	$0.32856^{+0.027}_{-0.033}$	6.6e + 02
\widetilde{W}	$0.01253_{-0.0032}^{+5} \\ 0.01685_{-0.0038}^{+0.0032}$	$0.0164^{+5}_{-0.0026}$	653	$0.32495^{+0.033}_{-0.046}$	$\begin{array}{c} 0.37663^{+0.025}_{-0.032} \\ 0.32529^{+0.021}_{-0.025} \end{array}$	6.2e + 02
$d_{\mathrm{FGD}_{\infty}}$	$0.01685^{+0.0032}_{-0.0038}$	$\begin{array}{c} 0.0164^{+5}_{-0.0026} \\ 0.02139^{+0.0026}_{-0.0032} \end{array}$	3221	$0.28803_{-0.038}^{+0.027}$	$0.32529_{-0.025}^{+0.021}$	2.6e + 03
$\mathcal{U} ext{-deformation}$				Timing		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$d_{\mathrm{FGD}_{\infty}}$	$0.49924^{+0.046}_{-0.066}$	$0.56381^{+0.036}_{-0.047}$	2.5e + 03	3225		
\overline{D}	$0.03885^{+0.012}_{-0.015}$	$0.0555^{+0.011}_{-0.012}$	6.4e + 02	511		
$d_{\mathrm{MMD}_u^2} \ \widetilde{D}$	$\begin{array}{c} 0.03885 ^{+0.012}_{-0.015} \\ 2.02548 ^{+0.23}_{-0.32} \end{array}$	$2.31727^{+0.16}_{-0.2}$	1.1e + 03	665		
	$0.48383^{+0.061}_{-0.074}$	$0.56865^{+0.048}_{-0.057}$	6.3e + 02	456		
\widetilde{W}	$0.56347^{+0.054}_{-0.083}$	$0.65308^{+0.044}_{-0.056}$	5.9e + 02	285		
$t_{ m LLR}$	NaN	NaN	NaN	-		