n = m = 10^4

Statistic	μ-deformation			Σ_{ii}-deformation		
	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
t_{LLR}	$0.00556^{+0.0031}_{-0.003}$	$0.00795^{+0.003}_{-0.003}$	2440	$0.00153^{+0.001}_{-0.00098}$	$0.0022^{+0.00098}_{-0.00099}$	3079
$\overline{D}$	$0.04811^{+0.022}_{-0.021}$	$0.06605^{+0.021}_{-0.02}$	406	$0.02898^{+0.011}_{-0.012}$	$0.04029^{+0.0097}_{-0.01}$	434
$\widetilde{D}$	$0.04841^{+0.021}_{-0.021}$	$0.06372^{+0.02}_{-0.02}$	655	$0.02623^{+0.0087}_{-0.01}$	$0.03417^{+0.0082}_{-0.0086}$	693
$\widetilde{W}$	$0.04948^{+0.022}_{-0.021}$	$0.06621^{+0.021}_{-0.02}$	570	$0.02059^{+0.0066}_{-0.0078}$	$0.02732^{+0.0061}_{-0.0065}$	615
d_{FGD_∞}	$0.05029^{+0.026}_{-0.022}$	$0.06539^{+0.024}_{-0.02}$	1885	$0.01695^{+0.007}_{-0.007}$	$0.02215^{+0.0065}_{-0.0059}$	1994
$d_{\mathrm{MMD}^2_u}$	$0.0596^{+0.028}_{-0.02}$	$0.08041^{+0.026}_{-0.02}$	7731	$0.02325^{+0.011}_{-0.0079}$	$0.03109^{+0.01}_{-0.0079}$	8172

Statistic	$\Sigma_{i\neq j}$-deformation			pow_+-deformation		
	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
t_{LLR}	$7e-05^{+4e-05}_{-4e-05}$	0.0001^{+4e-05}_{-4e-05}	5067	$0.00042^{+0.00025}_{-0.00026}$	$0.00061^{+0.00025}_{-0.00025}$	2918
d_{FGD_∞}	$0.00236^{+0.00058}_{-0.00074}$	$0.00308^{+0.00048}_{-0.00054}$	2292	$0.00419^{+0.0019}_{-0.0018}$	$0.0054^{+0.0017}_{-0.0015}$	2764
$\widetilde{D}$	$0.01029^{+0.0039}_{-0.0044}$	$0.01451^{+0.0036}_{-0.0041}$	731	$0.00505^{+0.0017}_{-0.002}$	$0.00646^{+0.0016}_{-0.0017}$	745
$\widetilde{W}$	$0.01153^{+0.0035}_{-0.0044}$	$0.01644^{+0.003}_{-0.0035}$	628	$0.0046^{+0.0017}_{-0.0019}$	$0.00614^{+0.0016}_{-0.0017}$	642
$d_{\mathrm{MMD}^2_u}$	$0.01275^{+0.0071}_{-0.0053}$	$0.01756^{+0.0067}_{-0.0052}$	8404	$0.00358^{+0.0018}_{-0.0012}$	$0.00483^{+0.0016}_{-0.0013}$	8838
$\overline{D}$	$1.0107^{+0.0062}_{-0.003}$	$1.01968^{+0.003}_{-0.0045}$	291	$0.00602^{+0.002}_{-0.0024}$	$0.00806^{+0.0019}_{-0.0019}$	458

Statistic	pow_--deformation			$\mathcal{N}$-deformation		
	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
t_{LLR}	$0.00042^{+0.00025}_{-0.00026}$	$0.0006^{+0.00025}_{-0.00025}$	2929	NaN	NaN	NaN
$d_{\mathrm{MMD}^2_u}$	$0.00346^{+0.0019}_{-0.0014}$	$0.00477^{+0.0018}_{-0.0014}$	8989	$0.73852^{+0.086}_{-0.091}$	$0.85602^{+0.075}_{-0.062}$	5.8e+03
d_{FGD_∞}	$0.00411^{+0.0017}_{-0.0015}$	$0.0054^{+0.0015}_{-0.0014}$	2757	$0.16992^{+0.02}_{-0.03}$	$0.1944^{+0.014}_{-0.018}$	2.1e+03
$\widetilde{W}$	$0.00455^{+5}_{-0.0017}$	$0.00609^{+5}_{-0.0015}$	586	$0.28641^{+0.047}_{-0.065}$	$0.33654^{+0.037}_{-0.046}$	5.3e+02
$\widetilde{D}$	$0.00487^{+0.0017}_{-0.0019}$	$0.00632^{+0.0016}_{-0.0017}$	748	$0.28237^{+0.046}_{-0.066}$	$0.32811^{+0.038}_{-0.048}$	6.1e+02
$\overline{D}$	$0.00575^{+0.002}_{-0.0022}$	$0.00773^{+0.0018}_{-0.0019}$	461	$0.32182^{+0.055}_{-0.08}$	$0.3832^{+0.045}_{-0.054}$	3.9e+02

Statistic	$\mathcal{U}$-deformation			Timing
	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)
d_{FGD_∞}	$0.2926^{+0.036}_{-0.05}$	$0.33697^{+0.025}_{-0.034}$	2e+03	3821
$\overline{D}$	$0.55562^{+0.096}_{-0.14}$	$0.65585^{+0.083}_{-0.089}$	3.8e+02	127
$d_{\mathrm{MMD}^2_u}$	$1.28521^{+0.15}_{-0.17}$	$1.49004^{+0.11}_{-0.12}$	6.5e+03	13843
$\widetilde{D}$	$0.48849^{+0.085}_{-0.11}$	$0.56476^{+0.072}_{-0.079}$	5.8e+02	480
$\widetilde{W}$	$0.49513^{+0.079}_{-0.11}$	$0.5818^{+0.063}_{-0.078}$	5.1e+02	313
t_{LLR}	NaN	NaN	NaN	-