

$\mathbf{n} = \mathbf{m} = 10^4$						
Statistic	μ -deformation			Σ_{ii} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{LLR}	$0.01301^{+0.0092}_{-0.009}$	$0.01876^{+0.0091}_{-0.009}$	2395	$0.00271^{+0.0015}_{-0.0015}$	$0.0039^{+0.0015}_{-0.0015}$	3445
\overline{D}	$0.03969^{+0.019}_{-0.017}$	$0.05257^{+0.018}_{-0.017}$	375	$0.02757^{+0.0098}_{-0.011}$	$0.03802^{+0.0095}_{-0.0096}$	392
$d_{FGD\infty}$	$0.0398^{+0.029}_{-0.019}$	$0.05631^{+0.026}_{-0.019}$	796	$0.0131^{+0.0069}_{-0.0056}$	$0.01812^{+0.0063}_{-0.0052}$	827
\widetilde{W}	$0.04284^{+0.023}_{-0.019}$	$0.05813^{+0.022}_{-0.019}$	570	$0.01631^{+0.0056}_{-0.0061}$	$0.02247^{+0.0053}_{-0.0054}$	634
\widetilde{D}	$0.04511^{+0.023}_{-0.02}$	$0.06047^{+0.022}_{-0.021}$	647	$0.02164^{+0.0077}_{-0.0084}$	$0.02958^{+0.0072}_{-0.0075}$	695
$d_{MMD^2_u}$	$0.05271^{+0.038}_{-0.025}$	$0.07325^{+0.036}_{-0.025}$	8011	$0.01512^{+0.011}_{-0.0072}$	$0.0211^{+0.01}_{-0.0073}$	8412
Statistic	$\Sigma_{i \neq j}$ -deformation			pow ₊ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{LLR}	$0.00029^{+0.00014}_{-0.00014}$	$0.00042^{+0.00014}_{-0.00015}$	4429	$0.00098^{+0.00058}_{-0.00057}$	$0.00142^{+0.00058}_{-0.00057}$	3658
$d_{FGD\infty}$	$0.00462^{+0.00092}_{-0.0011}$	$0.00642^{+0.00073}_{-0.0008}$	867	$0.00359^{+0.0022}_{-0.0017}$	$0.00496^{+0.002}_{-0.0016}$	926
\widetilde{D}	$0.01315^{+0.0046}_{-0.0053}$	$0.01929^{+0.0043}_{-0.0047}$	711	$0.00469^{+0.002}_{-0.002}$	$0.00617^{+0.002}_{-0.0019}$	734
\widetilde{W}	$0.01432^{+0.0039}_{-0.0046}$	$0.02147^{+0.0034}_{-0.0038}$	624	$0.00417^{+0.0019}_{-0.0018}$	$0.00577^{+0.0019}_{-0.0017}$	646
$d_{MMD^2_u}$	$0.02648^{+0.016}_{-0.011}$	$0.03712^{+0.015}_{-0.011}$	8116	$0.00284^{+0.0021}_{-0.0014}$	$0.00398^{+0.002}_{-0.0014}$	9272
\overline{D}	$1.01724^{+0.0021}_{-0.007}$	$1.02023^{+0.001}_{-0.0025}$	264	$0.00583^{+0.0024}_{-0.0023}$	$0.00769^{+0.0023}_{-0.0022}$	415
Statistic	pow ₋ -deformation			\mathcal{N} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{LLR}	$0.0011^{+0.00057}_{-0.00058}$	$0.00153^{+0.00057}_{-0.00057}$	3561	NaN	NaN	NaN
$d_{MMD^2_u}$	$0.003^{+0.0022}_{-0.0014}$	$0.00421^{+0.0021}_{-0.0015}$	9128	$0.52411^{+0.13}_{-0.12}$	$0.61773^{+0.11}_{-0.098}$	$6.5e+03$
$d_{FGD\infty}$	$0.00358^{+0.002}_{-0.0014}$	$0.00501^{+0.0018}_{-0.0014}$	1011	$0.18192^{+0.02}_{-0.025}$	$0.21532^{+0.014}_{-0.016}$	$7.9e+02$
\widetilde{W}	$0.00413^{+5}_{-0.0018}$	$0.00579^{+5}_{-0.0018}$	588	$0.24644^{+0.04}_{-0.049}$	$0.29702^{+0.032}_{-0.038}$	$5.3e+02$
\widetilde{D}	$0.0047^{+0.002}_{-0.002}$	$0.00616^{+0.0019}_{-0.0018}$	739	$0.24062^{+0.041}_{-0.055}$	$0.28403^{+0.036}_{-0.039}$	$6.1e+02$
\overline{D}	$0.00575^{+0.0024}_{-0.0024}$	$0.00763^{+0.0022}_{-0.0022}$	417	$0.20579^{+0.037}_{-0.045}$	$0.24503^{+0.029}_{-0.032}$	$3.6e+02$
Statistic	\mathcal{U} -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	t^{null} (s)		
$d_{FGD\infty}$	$0.31629^{+0.034}_{-0.044}$	$0.37162^{+0.023}_{-0.026}$	$7.7e+02$	1015		
\overline{D}	$0.35478^{+0.059}_{-0.077}$	$0.42387^{+0.05}_{-0.054}$	$3.5e+02$	41		
$d_{MMD^2_u}$	$0.90965^{+0.23}_{-0.21}$	$1.06663^{+0.2}_{-0.17}$	$7.2e+03$	13839		
\widetilde{D}	$0.41645^{+0.071}_{-0.095}$	$0.49422^{+0.057}_{-0.072}$	$5.9e+02$	469		
\widetilde{W}	$0.42947^{+0.066}_{-0.087}$	$0.514^{+0.054}_{-0.063}$	$5.1e+02$	305		
t_{LLR}	NaN	NaN	NaN	-		