

$\mathbf{n} = \mathbf{m} = 10^4$						
$\mu$ -deformation				$\Sigma_{ii}$ -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{LLR}$	$0.01986^{+0.013}_{-0.013}$	$0.02935^{+0.013}_{-0.013}$	1464	$0.0044^{+0.0026}_{-0.0026}$	$0.00639^{+0.0026}_{-0.0025}$	1356
$\overline{D}$	$0.0604^{+0.028}_{-0.028}$	$0.0788^{+0.026}_{-0.027}$	534	$0.04739^{+0.014}_{-0.016}$	$0.0626^{+0.013}_{-0.014}$	571
$d_{FGD\infty}$	$0.06444^{+0.04}_{-0.03}$	$0.08946^{+0.036}_{-0.028}$	533	$0.02066^{+0.0095}_{-0.0076}$	$0.02862^{+0.0088}_{-0.0074}$	564
$\widetilde{W}$	$0.06637^{+0.032}_{-0.029}$	$0.09067^{+0.03}_{-0.029}$	507	$0.02563^{+0.0081}_{-0.0084}$	$0.03543^{+0.0079}_{-0.0076}$	546
$\widetilde{D}$	$0.06935^{+0.033}_{-0.032}$	$0.09308^{+0.032}_{-0.032}$	981	$0.03556^{+0.011}_{-0.012}$	$0.0483^{+0.01}_{-0.01}$	1061
$d_{MMD_u^2}$	$0.08197^{+0.055}_{-0.036}$	$0.11263^{+0.052}_{-0.036}$	1113	$0.02366^{+0.016}_{-0.011}$	$0.03246^{+0.015}_{-0.011}$	1212
$\Sigma_{i \neq j}$ -deformation				pow <sub>+</sub> -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{LLR}$	$0.00043^{+0.00023}_{-0.00023}$	$0.00063^{+0.00023}_{-0.00023}$	1775	$0.00161^{+0.001}_{-0.001}$	$0.00228^{+0.001}_{-0.001}$	1488
$d_{FGD\infty}$	$0.00779^{+0.0018}_{-0.002}$	$0.01077^{+0.0015}_{-0.0016}$	583	$0.00554^{+0.0034}_{-0.0025}$	$0.00773^{+0.0031}_{-0.0024}$	613
$\widetilde{D}$	$0.02229^{+0.0078}_{-0.0084}$	$0.03286^{+0.0075}_{-0.0081}$	1108	$0.00731^{+0.003}_{-0.0031}$	$0.00962^{+0.0029}_{-0.0029}$	1089
$\widetilde{W}$	$0.02457^{+0.0064}_{-0.0071}$	$0.03647^{+0.0056}_{-0.0061}$	532	$0.00648^{+0.003}_{-0.0027}$	$0.0091^{+0.0029}_{-0.0028}$	580
$d_{MMD_u^2}$	$0.04539^{+0.025}_{-0.019}$	$0.06195^{+0.024}_{-0.019}$	1192	$0.00446^{+0.003}_{-0.002}$	$0.00612^{+0.0029}_{-0.002}$	1307
$\overline{D}$	$1.02291^{+0.0098}_{-0.0075}$	$1.03355^{+0.0035}_{-0.014}$	413	$0.00947^{+0.0033}_{-0.0037}$	$0.01206^{+0.0032}_{-0.0033}$	607
pow <sub>-</sub> -deformation				$\mathcal{N}$ -deformation		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{LLR}$	$0.00174^{+0.001}_{-0.001}$	$0.00235^{+0.001}_{-0.001}$	1478	NaN	NaN	NaN
$d_{MMD_u^2}$	$0.00517^{+0.0035}_{-0.0024}$	$0.00699^{+0.0033}_{-0.0024}$	1320	$0.65882^{+0.16}_{-0.15}$	$0.77006^{+0.13}_{-0.11}$	$9.6e+02$
$d_{FGD\infty}$	$0.00626^{+0.0033}_{-0.0024}$	$0.00846^{+0.0031}_{-0.0023}$	607	$0.23539^{+0.025}_{-0.034}$	$0.27474^{+0.019}_{-0.02}$	$4.7e+02$
$\widetilde{W}$	$0.00714^{+10}_{-0.0025}$	$0.00976^{+10}_{-0.0025}$	525	$0.31414^{+0.046}_{-0.054}$	$0.37729^{+0.04}_{-0.039}$	$4.9e+02$
$\widetilde{D}$	$0.00773^{+0.0029}_{-0.0028}$	$0.01011^{+0.0028}_{-0.0027}$	1088	$0.31014^{+0.045}_{-0.057}$	$0.3699^{+0.038}_{-0.047}$	$9.6e+02$
$\overline{D}$	$0.00938^{+0.0036}_{-0.0035}$	$0.01208^{+0.0034}_{-0.0033}$	649	$0.2711^{+0.038}_{-0.059}$	$0.31549^{+0.032}_{-0.043}$	$5.8e+02$
$\mathcal{U}$ -deformation				Timing		
Statistic	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$t^{\text{null}}$ (s)		
$d_{FGD\infty}$	$0.40466^{+0.047}_{-0.058}$	$0.47806^{+0.031}_{-0.035}$	$4.5e+02$	465		
$\overline{D}$	$0.45812^{+0.072}_{-0.096}$	$0.53398^{+0.063}_{-0.071}$	$5.6e+02$	32		
$d_{MMD_u^2}$	$1.13409^{+0.27}_{-0.25}$	$1.33277^{+0.23}_{-0.2}$	$1.1e+03$	1267		
$\widetilde{D}$	$0.53293^{+0.085}_{-0.096}$	$0.63342^{+0.064}_{-0.075}$	$6e+02$	375		