

CG model with $d = 100$ and $n = m = 5 \cdot 10^4$						
Statistic	μ -deformation			Σ_{ii} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.03802^{+0.011}_{-0.013}$	$0.0489^{+0.0099}_{-0.011}$	857	$0.01458^{+0.0043}_{-0.0051}$	$0.01856^{+0.0039}_{-0.004}$	822
$t_{\overline{KS}}$	$0.03575^{+0.012}_{-0.015}$	$0.04605^{+0.011}_{-0.012}$	833	$0.01795^{+0.0061}_{-0.0076}$	$0.02313^{+0.0057}_{-0.0062}$	883
t_{SKS}	$0.03957^{+0.011}_{-0.014}$	$0.05019^{+0.01}_{-0.011}$	1038	$0.01894^{+0.0059}_{-0.0072}$	$0.02379^{+0.0053}_{-0.0061}$	1141
t_{FGD}	$0.04169^{+0.014}_{-0.016}$	$0.05238^{+0.012}_{-0.013}$	11537	$0.01306^{+0.0042}_{-0.005}$	$0.01641^{+0.0039}_{-0.0039}$	10029
t_{MMD}	$0.02696^{+0.015}_{-0.013}$	$0.0351^{+0.014}_{-0.011}$	8530	$0.01695^{+0.0078}_{-0.0074}$	$0.02212^{+0.0073}_{-0.0062}$	8705
t_{NPLM}	$0.01516^{+0.005}_{-0.0067}$	$0.01824^{+0.0047}_{-0.0052}$	20472	$0.00428^{+0.0013}_{-0.0019}$	$0.00519^{+0.0012}_{-0.0014}$	24180
t_{LLR}	$0.00244^{+0.0015}_{-0.0015}$	$0.00345^{+0.0015}_{-0.0015}$	8119	$0.0005^{+0.00035}_{-0.00035}$	$0.0007^{+0.00035}_{-0.00035}$	9217
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_{SW}	$0.03389^{+0.0097}_{-0.013}$	$0.04416^{+0.0083}_{-0.0098}$	3322	$0.00319^{+0.00091}_{-0.0011}$	$0.00408^{+0.0008}_{-0.00089}$	875
$t_{\overline{KS}}$	$1.01718^{+0.01}_{-0.0089}$	$1.0202^{+0.009}_{-0.003}$	6142	$0.00377^{+0.0011}_{-0.0015}$	$0.0048^{+0.001}_{-0.0011}$	938
t_{SKS}	$0.04593^{+0.015}_{-0.018}$	$0.05872^{+0.013}_{-0.015}$	3722	$0.00365^{+0.00095}_{-0.0012}$	$0.00455^{+0.00087}_{-0.00099}$	1271
t_{FGD}	$0.00311^{+0.00099}_{-0.0012}$	$0.0039^{+0.0008}_{-0.0009}$	17716	$0.00319^{+0.001}_{-0.0012}$	$0.00401^{+0.0009}_{-0.00095}$	8636
t_{MMD}	$0.02172^{+0.011}_{-0.01}$	$0.02865^{+0.0098}_{-0.0089}$	12459	$0.00213^{+0.0012}_{-0.001}$	$0.00278^{+0.0011}_{-0.00089}$	9610
t_{NPLM}	$0.00694^{+0.0025}_{-0.0036}$	$0.00839^{+0.002}_{-0.0024}$	26165	$0.00146^{+0.0005}_{-0.00066}$	$0.00178^{+0.00043}_{-0.00052}$	29213
t_{LLR}	-	-	-	$0.00014^{+0.0001}_{-0.0001}$	$0.0002^{+0.0001}_{-0.0001}$	9983
Statistic	pow $_{-}$ -deformation			\mathcal{N} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.00326^{+5}_{-0.0014}$	$0.00416^{+5}_{-0.0011}$	809	$0.33188^{+0.045}_{-0.065}$	$0.37703^{+0.037}_{-0.044}$	702
$t_{\overline{KS}}$	$0.00375^{+0.0013}_{-0.0017}$	$0.00477^{+0.0012}_{-0.0013}$	944	$0.36811^{+0.063}_{-0.087}$	$0.42005^{+0.049}_{-0.06}$	762
t_{SKS}	$0.0036^{+0.0011}_{-0.0014}$	$0.00449^{+0.001}_{-0.0012}$	1262	$0.36186^{+0.052}_{-0.076}$	$0.40547^{+0.046}_{-0.057}$	1001
t_{FGD}	$0.00325^{+0.0014}_{-0.0016}$	$0.00409^{+0.0012}_{-0.0012}$	12398	$0.15873^{+0.02}_{-0.036}$	$0.17714^{+0.017}_{-0.022}$	7779
t_{MMD}	$0.00207^{+0.0012}_{-0.0011}$	$0.00273^{+0.0012}_{-0.00095}$	9933	$0.79853^{+0.11}_{-0.16}$	$0.91959^{+0.078}_{-0.098}$	6228
t_{NPLM}	$0.00166^{+0.00053}_{-0.00068}$	$0.00199^{+0.00047}_{-0.00054}$	17883	$0.21061^{+0.044}_{-0.085}$	$0.24016^{+0.031}_{-0.049}$	21053
t_{LLR}	$0.00018^{+0.0001}_{-0.0001}$	$0.00023^{+0.00011}_{-0.0001}$	9090	-	-	-
Statistic	\mathcal{U} -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	t^{null} (s)		
t_{SW}	$0.57515^{+0.082}_{-0.11}$	$0.6534^{+0.065}_{-0.077}$	662	337		
$t_{\overline{KS}}$	$0.64154^{+0.1}_{-0.15}$	$0.73314^{+0.076}_{-0.11}$	744	789		
t_{SKS}	$0.62476^{+0.091}_{-0.13}$	$0.7049^{+0.075}_{-0.097}$	935	1044		
t_{FGD}	$0.27255^{+0.039}_{-0.059}$	$0.30784^{+0.029}_{-0.038}$	7276	16484		
t_{MMD}	$1.39355^{+0.19}_{-0.28}$	$1.59398^{+0.15}_{-0.18}$	7134	14531		
t_{NPLM}	$0.36124^{+0.074}_{-0.15}$	$0.41888^{+0.054}_{-0.093}$	16299	32757		
t_{LLR}	-	-	-	-		