

CG model with $d = 100$ and $n = m = 2 \cdot 10^4$						
Statistic	μ -deformation			Σ_{ii} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.05955^{+0.021}_{-0.023}$	$0.07615^{+0.019}_{-0.02}$	890	$0.0225^{+0.0073}_{-0.0082}$	$0.02867^{+0.0068}_{-0.0069}$	954
$t_{\overline{KS}}$	$0.05834^{+0.019}_{-0.022}$	$0.07252^{+0.019}_{-0.019}$	802	$0.02825^{+0.0094}_{-0.01}$	$0.03574^{+0.0088}_{-0.0095}$	861
t_{SKS}	$0.06195^{+0.021}_{-0.023}$	$0.07913^{+0.019}_{-0.021}$	1200	$0.02901^{+0.0093}_{-0.011}$	$0.03683^{+0.0086}_{-0.0092}$	1080
t_{FGD}	$0.06396^{+0.025}_{-0.024}$	$0.07971^{+0.022}_{-0.021}$	5360	$0.02023^{+0.0075}_{-0.0082}$	$0.02523^{+0.0066}_{-0.0069}$	5467
t_{MMD}	$0.04176^{+0.022}_{-0.018}$	$0.05326^{+0.021}_{-0.017}$	1934	$0.02689^{+0.012}_{-0.01}$	$0.03445^{+0.011}_{-0.0094}$	1959
t_{NPLM}	$0.02434^{+0.007}_{-0.0092}$	$0.02932^{+0.0062}_{-0.0073}$	3112	$0.00698^{+0.0023}_{-0.0029}$	$0.00849^{+0.002}_{-0.0023}$	3381
t_{NPLM}	$0.01974^{+0.0058}_{-0.0068}$	$0.0237^{+0.0053}_{-0.0056}$	26857	$0.01047^{+0.003}_{-0.0039}$	$0.01264^{+0.0027}_{-0.0032}$	29892
t_{LLR}	$0.00379^{+0.0026}_{-0.0026}$	$0.0055^{+0.0026}_{-0.0026}$	3816	$0.00074^{+0.00053}_{-0.00053}$	$0.00108^{+0.00052}_{-0.00053}$	4378
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}	$0.0527^{+0.013}_{-0.017}$	$0.06819^{+0.011}_{-0.013}$	3438	$0.00495^{+0.0017}_{-0.0019}$	$0.00629^{+0.0017}_{-0.0016}$	978
$t_{\overline{KS}}$	$1.02602^{+0.0091}_{-0.007}$	$1.03113^{+0.015}_{-0.003}$	7951	$0.00613^{+0.0019}_{-0.0022}$	$0.00754^{+0.0018}_{-0.0019}$	896
t_{SKS}	$0.0706^{+0.019}_{-0.025}$	$0.0902^{+0.019}_{-0.021}$	4340	$0.00572^{+0.0019}_{-0.0021}$	$0.00714^{+0.0018}_{-0.0018}$	1180
t_{FGD}	$0.00469^{+0.0013}_{-0.0017}$	$0.00589^{+0.0012}_{-0.0014}$	9541	$0.00494^{+0.0019}_{-0.002}$	$0.00613^{+0.0018}_{-0.0017}$	6351
t_{MMD}	$0.03593^{+0.016}_{-0.014}$	$0.04603^{+0.014}_{-0.013}$	7506	$0.00332^{+0.0018}_{-0.0014}$	$0.00423^{+0.0017}_{-0.0013}$	2150
t_{NPLM}	$0.01259^{+0.0036}_{-0.0055}$	$0.01533^{+0.0028}_{-0.0041}$	5423	$0.00233^{+0.00074}_{-0.00095}$	$0.00284^{+0.00064}_{-0.00076}$	3626
t_{NPLM}	$0.01391^{+0.0035}_{-0.0045}$	$0.01672^{+0.0029}_{-0.0036}$	31572	$0.00207^{+0.00062}_{-0.00076}$	$0.0025^{+0.00057}_{-0.00062}$	34782
t_{LLR}	-	-	-	$0.00021^{+0.00015}_{-0.00015}$	$0.00032^{+0.00015}_{-0.00015}$	4341
Statistic	pow_- -deformation			\mathcal{N} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.00508^{+5}_{-0.0017}$	$0.00647^{+5}_{-0.0015}$	915	$0.41334^{+0.062}_{-0.084}$	$0.46898^{+0.052}_{-0.058}$	805
$t_{\overline{KS}}$	$0.00597^{+0.0019}_{-0.0021}$	$0.0074^{+0.0017}_{-0.0018}$	900	$0.46482^{+0.07}_{-0.097}$	$0.52444^{+0.056}_{-0.075}$	731
t_{SKS}	$0.00563^{+0.0017}_{-0.002}$	$0.00704^{+0.0016}_{-0.0017}$	1185	$0.44843^{+0.067}_{-0.096}$	$0.50879^{+0.057}_{-0.069}$	928
t_{FGD}	$0.00508^{+0.0017}_{-0.0018}$	$0.00625^{+0.0016}_{-0.0015}$	6610	$0.1987^{+0.025}_{-0.037}$	$0.22055^{+0.021}_{-0.025}$	5119
t_{MMD}	$0.00353^{+0.0019}_{-0.0016}$	$0.0045^{+0.0018}_{-0.0014}$	2116	$1.01973^{+0.13}_{-0.17}$	$1.1523^{+0.097}_{-0.11}$	1563
t_{NPLM}	$0.00281^{+0.00078}_{-0.001}$	$0.00331^{+0.00072}_{-0.00081}$	3423	$0.26099^{+0.054}_{-0.11}$	$0.29838^{+0.045}_{-0.064}$	2643
t_{NPLM}	$0.00238^{+0.00069}_{-0.00083}$	$0.0028^{+0.00065}_{-0.00069}$	32366	$0.27791^{+0.051}_{-0.068}$	$0.3185^{+0.038}_{-0.055}$	23561
t_{LLR}	$0.00028^{+0.00015}_{-0.00015}$	$0.00039^{+0.00015}_{-0.00015}$	4141	-	-	-
Statistic	\mathcal{U} -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	t^{null} (s)		
t_{SW}	$0.71388^{+0.11}_{-0.14}$	$0.81581^{+0.084}_{-0.1}$	775	294		
$t_{\overline{KS}}$	$0.80534^{+0.12}_{-0.17}$	$0.90238^{+0.1}_{-0.13}$	710	527		
t_{SKS}	$0.77724^{+0.12}_{-0.16}$	$0.88187^{+0.098}_{-0.13}$	913	592		
t_{FGD}	$0.34266^{+0.043}_{-0.065}$	$0.38262^{+0.033}_{-0.044}$	4326	7457		
t_{MMD}	$1.76762^{+0.21}_{-0.3}$	$1.99743^{+0.17}_{-0.19}$	1492	2390		
t_{NPLM}	$0.44585^{+0.099}_{-0.17}$	$0.51708^{+0.076}_{-0.11}$	2481	5558		
t_{NPLM}	$0.48426^{+0.088}_{-0.11}$	$0.5534^{+0.057}_{-0.097}$	21459	47489		
t_{LLR}	-	-	-	-		