

CG model with $d = 20$ and $n = m = 10^5$						
Statistic	μ -deformation			Σ_{ii} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.03129^{+0.017}_{-0.017}$	$0.04371^{+0.017}_{-0.016}$	639	$0.01426^{+0.005}_{-0.0059}$	$0.01917^{+0.0048}_{-0.0048}$	665
$t_{\overline{KS}}$	$0.03141^{+0.016}_{-0.015}$	$0.04347^{+0.015}_{-0.015}$	460	$0.01967^{+0.0071}_{-0.0077}$	$0.02735^{+0.0066}_{-0.007}$	472
t_{SKS}	$0.03135^{+0.016}_{-0.016}$	$0.04314^{+0.016}_{-0.015}$	769	$0.018^{+0.0065}_{-0.0075}$	$0.02411^{+0.0063}_{-0.0064}$	782
t_{FGD}	$0.03111^{+0.021}_{-0.017}$	$0.04221^{+0.019}_{-0.016}$	4255	$0.01186^{+0.0054}_{-0.005}$	$0.01569^{+0.0048}_{-0.0044}$	4335
t_{MMD}	$0.04025^{+0.025}_{-0.019}$	$0.05607^{+0.023}_{-0.018}$	9663	$0.01562^{+0.01}_{-0.0074}$	$0.02173^{+0.0094}_{-0.0071}$	10030
t_{NPLM}	$0.01895^{+0.0063}_{-0.0079}$	$0.02309^{+0.0059}_{-0.0063}$	16247	$0.00615^{+0.0021}_{-0.0027}$	$0.00751^{+0.0019}_{-0.0021}$	17791
t_{LLR}	$0.00359^{+0.0024}_{-0.0024}$	$0.00499^{+0.0024}_{-0.0024}$	4610	$0.00121^{+0.0007}_{-0.00069}$	$0.00169^{+0.00069}_{-0.0007}$	5014
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}	$0.01982^{+0.0057}_{-0.0078}$	$0.02792^{+0.0047}_{-0.0054}$	1111	$0.00297^{+0.0014}_{-0.0015}$	$0.00412^{+0.0013}_{-0.0013}$	704
$t_{\overline{KS}}$	$1.0196^{+0.0058}_{-0.0057}$	$1.0239^{+0.013}_{-0.0025}$	1498	$0.00399^{+0.0016}_{-0.0017}$	$0.00538^{+0.0014}_{-0.0015}$	508
t_{SKS}	$0.02657^{+0.0082}_{-0.01}$	$0.03653^{+0.0075}_{-0.0084}$	1283	$0.00327^{+0.0013}_{-0.0015}$	$0.00437^{+0.0013}_{-0.0013}$	837
t_{FGD}	$0.00341^{+0.0008}_{-0.0011}$	$0.0044^{+0.0008}_{-0.00082}$	4892	$0.00271^{+0.0015}_{-0.0014}$	$0.00361^{+0.0014}_{-0.0011}$	3416
t_{MMD}	$0.02162^{+0.014}_{-0.0097}$	$0.03066^{+0.013}_{-0.0099}$	11100	$0.00241^{+0.0016}_{-0.0012}$	$0.00337^{+0.0015}_{-0.0011}$	11029
t_{NPLM}	$0.0015^{+0.00041}_{-0.0006}$	$0.0018^{+0.0004}_{-0.00045}$	19458	$0.00177^{+0.00062}_{-0.00078}$	$0.00216^{+0.00056}_{-0.00062}$	19801
t_{LLR}	-	-	-	$0.00029^{+0.00017}_{-0.00017}$	$0.00041^{+0.00017}_{-0.00016}$	5378
Statistic	pow $_-$ -deformation			\mathcal{N} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.00332^{+5}_{-0.0012}$	$0.00448^{+5}_{-0.00099}$	636	$0.2383^{+0.041}_{-0.058}$	$0.2828^{+0.032}_{-0.039}$	527
$t_{\overline{KS}}$	$0.00427^{+0.0013}_{-0.0014}$	$0.00565^{+0.0013}_{-0.0012}$	502	$0.26557^{+0.046}_{-0.062}$	$0.31516^{+0.036}_{-0.044}$	418
t_{SKS}	$0.00361^{+0.0011}_{-0.0012}$	$0.0047^{+0.0011}_{-0.001}$	826	$0.23289^{+0.042}_{-0.057}$	$0.27403^{+0.034}_{-0.041}$	672
t_{FGD}	$0.00296^{+0.0012}_{-0.001}$	$0.0039^{+0.0011}_{-0.00093}$	3369	$0.14094^{+0.018}_{-0.027}$	$0.16127^{+0.013}_{-0.016}$	2623
t_{MMD}	$0.00241^{+0.0016}_{-0.0011}$	$0.0034^{+0.0015}_{-0.0011}$	11032	$0.60915^{+0.1}_{-0.12}$	$0.71813^{+0.08}_{-0.08}$	7611
t_{NPLM}	$0.0019^{+0.00058}_{-0.00072}$	$0.00231^{+0.00051}_{-0.00058}$	19302	$0.08534^{+0.012}_{-0.019}$	$0.09358^{+0.01}_{-0.013}$	20062
t_{LLR}	$0.00031^{+0.00016}_{-0.00017}$	$0.00043^{+0.00016}_{-0.00017}$	5381	-	-	-
Statistic	\mathcal{U} -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	t^{null} (s)		
t_{SW}	$0.41249^{+0.072}_{-0.1}$	$0.49115^{+0.057}_{-0.069}$	515	358		
$t_{\overline{KS}}$	$0.45649^{+0.083}_{-0.1}$	$0.54354^{+0.064}_{-0.073}$	402	224		
t_{SKS}	$0.40164^{+0.076}_{-0.096}$	$0.47562^{+0.061}_{-0.07}$	663	702		
t_{FGD}	$0.24366^{+0.031}_{-0.046}$	$0.27881^{+0.023}_{-0.027}$	2511	6325		
t_{MMD}	$1.06239^{+0.16}_{-0.22}$	$1.24837^{+0.14}_{-0.14}$	8273	16601		
t_{NPLM}	$0.14755^{+0.021}_{-0.031}$	$0.16279^{+0.016}_{-0.023}$	13832	28270		
t_{LLR}	-	-	-	-		