

CG model with $d = 20$ and $n = m = 10^4$						
Statistic	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{SW}$	$0.10922^{+0.046}_{-0.042}$	$0.14806^{+0.045}_{-0.041}$	839	$0.04571^{+0.015}_{-0.017}$	$0.0619^{+0.014}_{-0.014}$	886
$t_{\overline{KS}}$	$0.10878^{+0.041}_{-0.041}$	$0.1457^{+0.038}_{-0.039}$	<b>395</b>	$0.06569^{+0.022}_{-0.024}$	$0.08903^{+0.021}_{-0.021}$	<b>439</b>
$t_{SKS}$	$0.11095^{+0.042}_{-0.041}$	$0.14448^{+0.042}_{-0.039}$	754	$0.0585^{+0.02}_{-0.021}$	$0.07738^{+0.018}_{-0.019}$	794
$t_{FGD}$	<b><math>0.10722^{+0.053}_{-0.044}</math></b>	<b><math>0.14391^{+0.049}_{-0.04}</math></b>	675	<b><math>0.03724^{+0.015}_{-0.014}</math></b>	<b><math>0.04968^{+0.014}_{-0.012}</math></b>	719
$t_{MMD}$	$0.13235^{+0.087}_{-0.058}$	$0.18033^{+0.081}_{-0.057}$	482	$0.05044^{+0.038}_{-0.023}$	$0.06855^{+0.035}_{-0.023}$	527
$t_{NPLM}$	$0.0575^{+0.018}_{-0.023}$	$0.07103^{+0.017}_{-0.018}$	1030	$0.01744^{+0.0073}_{-0.0086}$	$0.02211^{+0.0066}_{-0.007}$	1097
$t_{NPLM}$	$0.07454^{+0.019}_{-0.023}$	$0.09106^{+0.017}_{-0.019}$	22790	$0.01826^{+0.0063}_{-0.0072}$	$0.02318^{+0.0058}_{-0.006}$	25063
$t_{LLR}$	$0.01214^{+0.0077}_{-0.0077}$	$0.0172^{+0.0078}_{-0.0077}$	948	$0.00388^{+0.0021}_{-0.0021}$	$0.00519^{+0.0021}_{-0.0021}$	1025
Statistic	$\Sigma_{i \neq j}$ -deformation			pow <sub>+</sub> -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{SW}$	$0.06146^{+0.017}_{-0.021}$	$0.08828^{+0.014}_{-0.016}$	<b>1046</b>	$0.01011^{+0.0037}_{-0.0037}$	$0.01382^{+0.0034}_{-0.0034}$	1007
$t_{\overline{KS}}$	$1.06868^{+0.021}_{-0.023}$	$1.09302^{+0.015}_{-0.026}$	1523	$0.01342^{+0.0044}_{-0.0046}$	$0.01781^{+0.004}_{-0.004}$	<b>463</b>
$t_{SKS}$	$0.08431^{+0.026}_{-0.027}$	$0.11388^{+0.022}_{-0.023}$	1122	$0.01131^{+0.0038}_{-0.0039}$	$0.01462^{+0.0034}_{-0.0036}$	856
$t_{FGD}$	<b><math>0.01073^{+0.0029}_{-0.0036}</math></b>	<b><math>0.01457^{+0.0025}_{-0.0027}</math></b>	1959	$0.00904^{+0.004}_{-0.0035}$	$0.01206^{+0.0035}_{-0.0031}$	767
$t_{MMD}$	$0.05682^{+0.056}_{-0.038}$	$0.08384^{+0.049}_{-0.037}$	1598	<b><math>0.00794^{+0.0059}_{-0.0037}</math></b>	<b><math>0.01072^{+0.0056}_{-0.0036}</math></b>	564
$t_{NPLM}$	$0.00493^{+0.0019}_{-0.0023}$	$0.00649^{+0.0016}_{-0.0018}$	1627	$0.0051^{+0.0018}_{-0.0022}$	$0.00643^{+0.0016}_{-0.0017}$	1227
$t_{NPLM}$	$0.0045^{+0.0018}_{-0.002}$	$0.00619^{+0.0017}_{-0.0019}$	32942	$0.00523^{+0.0016}_{-0.0019}$	$0.00659^{+0.0014}_{-0.0015}$	28908
$t_{LLR}$	-	-	-	$0.00097^{+0.00057}_{-0.00057}$	$0.00133^{+0.00058}_{-0.00057}$	1265
Statistic	pow <sub>-</sub> -deformation			$\mathcal{N}$ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{SW}$	$0.00994^{+10}_{-0.0041}$	$0.0137^{+10}_{-0.0037}$	<b>479</b>	$0.42914^{+0.071}_{-0.094}$	$0.50927^{+0.058}_{-0.064}$	<b>437</b>
$t_{\overline{KS}}$	$0.01288^{+0.0046}_{-0.0051}$	$0.01711^{+0.0041}_{-0.0045}$	569	$0.48722^{+0.077}_{-0.11}$	$0.58312^{+0.061}_{-0.08}$	461
$t_{SKS}$	$0.01084^{+0.0039}_{-0.0043}$	$0.01413^{+0.0036}_{-0.0039}$	875	$0.42867^{+0.072}_{-0.09}$	$0.49965^{+0.059}_{-0.072}$	865
$t_{FGD}$	$0.00894^{+0.0043}_{-0.0037}$	$0.01218^{+0.0038}_{-0.0034}$	767	<b><math>0.25332^{+0.031}_{-0.044}</math></b>	<b><math>0.29566^{+0.021}_{-0.028}</math></b>	622
$t_{MMD}$	<b><math>0.00626^{+0.0064}_{-0.0042}</math></b>	<b><math>0.00942^{+0.0059}_{-0.0042}</math></b>	591	$1.07127^{+0.17}_{-0.21}$	$1.26293^{+0.14}_{-0.14}$	450
$t_{NPLM}$	$0.00629^{+0.002}_{-0.0025}$	$0.00765^{+0.0018}_{-0.002}$	1172	$0.14723^{+0.019}_{-0.033}$	$0.16327^{+0.017}_{-0.021}$	932
$t_{NPLM}$	$0.00782^{+0.002}_{-0.0023}$	$0.00923^{+0.0017}_{-0.0019}$	24584	$0.11166^{+0.016}_{-0.024}$	$0.12529^{+0.013}_{-0.016}$	20169
$t_{LLR}$	$0.0009^{+0.00057}_{-0.00058}$	$0.00129^{+0.00057}_{-0.00058}$	1055	-	-	-
Statistic	$\mathcal{U}$ -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$t^{\text{null}}$ (s)		
$t_{SW}$	$0.74247^{+0.12}_{-0.16}$	$0.88112^{+0.1}_{-0.11}$	<b>427</b>	255		
$t_{\overline{KS}}$	$0.82685^{+0.14}_{-0.16}$	$0.98617^{+0.1}_{-0.13}$	472	<b>91</b>		
$t_{SKS}$	$0.73953^{+0.12}_{-0.16}$	$0.86741^{+0.11}_{-0.13}$	847	338		
$t_{FGD}$	<b><math>0.4427^{+0.051}_{-0.077}</math></b>	<b><math>0.50983^{+0.038}_{-0.043}</math></b>	555	596		
$t_{MMD}$	$1.84547^{+0.31}_{-0.37}$	$2.19008^{+0.25}_{-0.22}$	500	210		
$t_{NPLM}$	$0.25377^{+0.036}_{-0.058}$	$0.28498^{+0.026}_{-0.039}$	887	1384		
$t_{NPLM}$	$0.19307^{+0.027}_{-0.039}$	$0.21664^{+0.022}_{-0.03}$	20532	40465		
$t_{LLR}$	-	-	-	-		