CG model with d = 20 and n = m = 10^4

	μ-deformation			Σ_{ii}-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	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
$t_{\overline{\text{KS}}}$	$0.10878^{+0.041}_{-0.041}$	$0.1457^{+0.038}_{-0.039}$	**395**	$0.06569^{+0.022}_{-0.024}$	$0.08903^{+0.021}_{-0.021}$	**439**
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}	$\mathbf{0.10722^{+0.053}_{-0.044}}$	$\mathbf{0.14391^{+0.049}_{-0.04}}$	675	$\mathbf{0.03724^{+0.015}_{-0.014}}$	$\mathbf{0.04968^{+0.014}_{-0.012}}$	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_{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

	$\Sigma_{i\neq j}$-deformation			pow_+-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)
t_{SW}	$0.02879^{+0.0084}_{-0.01}$	$0.04188^{+0.0071}_{-0.0083}$	**2537**	$0.01011^{+0.0037}_{-0.0037}$	$0.01382^{+0.0034}_{-0.0034}$	1007
$t_{\overline{\text{KS}}}$	$1.06868^{+0.021}_{-0.023}$	$1.09302^{+0.015}_{-0.026}$	2643	$0.01342^{+0.0044}_{-0.0046}$	$0.01781^{+0.004}_{-0.004}$	**463**
t_{SKS}	$0.03457^{+0.011}_{-0.012}$	$0.04743^{+0.011}_{-0.011}$	2642	$0.01131^{+0.0038}_{-0.0039}$	$0.01462^{+0.0034}_{-0.0036}$	856
t_{FGD}	$\mathbf{0.00549^{+0.0014}_{-0.0018}}$	$\mathbf{0.00736^{+0.0012}_{-0.0014}}$	3898	$0.00904^{+0.004}_{-0.0035}$	$0.01206^{+0.0035}_{-0.0031}$	767
t_{MMD}	$0.02442^{+0.024}_{-0.016}$	$0.03661^{+0.022}_{-0.016}$	3318	$\mathbf{0.00794^{+0.0059}_{-0.0037}}$	$\mathbf{0.01072^{+0.0056}_{-0.0036}}$	564
t_{LLR}	$0.02598^{+0.0098}_{-0.011}$	$0.03157^{+0.0074}_{-0.0092}$	3317	$0.00097^{+0.00057}_{-0.00057}$	$0.00133^{+0.00058}_{-0.00057}$	1265

	pow_-deformation			$\mathcal{N}$-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)
t_{SW}	$0.00994^{+10}_{-0.0041}$	$0.0137^{+10}_{-0.0037}$	**479**	$0.42914^{+0.071}_{-0.094}$	$0.50927^{+0.058}_{-0.064}$	**437**
$t_{\overline{\text{KS}}}$	$0.01288^{+0.0046}_{-0.0051}$	$0.01711^{+0.0041}_{-0.0045}$	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	$\mathbf{0.25332^{+0.031}_{-0.044}}$	$\mathbf{0.29566^{+0.021}_{-0.028}}$	622
t_{MMD}	$\mathbf{0.00626^{+0.0064}_{-0.0042}}$	$\mathbf{0.00942^{+0.0059}_{-0.0042}}$	591	$1.07127^{+0.17}_{-0.21}$	$1.26293^{+0.14}_{-0.14}$	450
t_{LLR}	$0.0009^{+0.00057}_{-0.00058}$	$0.00129^{+0.00057}_{-0.00058}$	1055	-	-	-

	$\mathcal{U}$-deformation			Timing
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	t^{null} (s)
t_{SW}	$0.74247^{+0.12}_{-0.16}$	$0.88112^{+0.1}_{-0.11}$	**427**	255
$t_{\overline{\text{KS}}}$	$0.82685^{+0.14}_{-0.16}$	$0.98617^{+0.1}_{-0.13}$	472	**91**
t_{SKS}	$0.73953^{+0.12}_{-0.16}$	$0.86741^{+0.11}_{-0.13}$	847	338
t_{FGD}	$\mathbf{0.4427^{+0.051}_{-0.077}}$	$\mathbf{0.50983^{+0.038}_{-0.043}}$	555	596
t_{MMD}	$1.84547^{+0.31}_{-0.37}$	$2.19008^{+0.25}_{-0.22}$	500	210
t_{LLR}	-	-	-	-