CG model with d = 20 and n = m = 10^5

	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}	$0.03129^{+0.017}_{-0.017}$	$0.04371^{+0.017}_{-0.016}$	639	$0.01426^{+0.005}_{-0.0059}$	$0.01917^{+0.0048}_{-0.0048}$	665
$t_{\overline{\text{KS}}}$	$0.03141^{+0.016}_{-0.015}$	$0.04347^{+0.015}_{-0.015}$	**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}	$\mathbf{0.03111^{+0.021}_{-0.017}}$	$\mathbf{0.04221^{+0.019}_{-0.016}}$	4255	$\mathbf{0.01186^{+0.0054}_{-0.005}}$	$\mathbf{0.01569^{+0.0048}_{-0.0044}}$	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_{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

	$\Sigma_{i\neq j}$-deformation			pow_+-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon^{\text{pow}_+}_{99\%\text{CL}}$	t (s)
t_{SW}	$0.0092^{+0.0027}_{-0.0037}$	$0.01296^{+0.0025}_{-0.0026}$	3030	$0.00297^{+0.0014}_{-0.0015}$	$0.00412^{+0.0013}_{-0.0013}$	704
$t_{\overline{\text{KS}}}$	$1.0196^{+0.0058}_{-0.0057}$	$1.0239^{+0.013}_{-0.0025}$	**2596**	$0.00399^{+0.0016}_{-0.0017}$	$0.00538^{+0.0014}_{-0.0015}$	**508**
t_{SKS}	$0.01053^{+0.0036}_{-0.0042}$	$0.01484^{+0.0032}_{-0.0037}$	3823	$0.00327^{+0.0013}_{-0.0015}$	$0.00437^{+0.0013}_{-0.0013}$	837
t_{FGD}	$\mathbf{0.0018^{+0.0004}_{-0.0006}}$	$\mathbf{0.00231^{+0.00035}_{-0.00041}}$	9002	$0.00271^{+0.0015}_{-0.0014}$	$0.00361^{+0.0014}_{-0.0011}$	3416
t_{MMD}	$0.00936^{+0.006}_{-0.0043}$	$0.0131^{+0.0055}_{-0.0041}$	13103	$\mathbf{0.00241^{+0.0016}_{-0.0012}}$	$\mathbf{0.00337^{+0.0015}_{-0.0011}}$	11029
t_{LLR}	$0.01074^{+0.0042}_{-0.0041}$	$0.01372^{+0.004}_{-0.0046}$	8682	$0.00029^{+0.00017}_{-0.00017}$	$0.00041^{+0.00017}_{-0.00016}$	5378

	pow_--deformation			$\mathcal{N}$-deformation		
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon^{\text{pow}_-}_{99\%\text{CL}}$	t (s)	$\epsilon_{95\%\text{CL}}$	$\epsilon^{\mathcal{N}}_{99\%\text{CL}}$	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
$t_{\overline{\text{KS}}}$	$0.00427^{+0.0013}_{-0.0014}$	$0.00565^{+0.0013}_{-0.0012}$	**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	$\mathbf{0.14094^{+0.018}_{-0.027}}$	$\mathbf{0.16127^{+0.013}_{-0.016}}$	2623
t_{MMD}	$\mathbf{0.00241^{+0.0016}_{-0.0011}}$	$\mathbf{0.0034^{+0.0015}_{-0.0011}}$	11032	$0.60915^{+0.1}_{-0.12}$	$0.71813^{+0.08}_{-0.08}$	7611
t_{LLR}	$0.00031^{+0.00016}_{-0.00017}$	$0.00043^{+0.00016}_{-0.00017}$	5381	-	-	-

	$\mathcal{U}$-deformation			Timing
Statistic	$\epsilon_{95\%\text{CL}}$	$\epsilon^{\mathcal{U}}_{99\%\text{CL}}$	t (s)	t^{null} (s)
t_{FGD}	$\mathbf{0.24366^{+0.031}_{-0.046}}$	$\mathbf{0.27881^{+0.023}_{-0.027}}$	2511	6325
t_{LLR}	-	-	-	-
t_{MMD}	$1.06239^{+0.16}_{-0.22}$	$1.24837^{+0.14}_{-0.14}$	8273	16601
t_{SKS}	$0.40164^{+0.076}_{-0.096}$	$0.47562^{+0.061}_{-0.07}$	663	702
t_{SW}	$0.41249^{+0.072}_{-0.1}$	$0.49115^{+0.057}_{-0.069}$	515	358
$t_{\overline{\text{KS}}}$	$0.45649^{+0.083}_{-0.1}$	$0.54354^{+0.064}_{-0.073}$	**402**	**224**