

**CG model with d = 20 and n = m = 10<sup>5</sup>**

Statistic	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)
$t_{SW}$	$0.03129^{+0.017}_{-0.017}$	$0.04371^{+0.017}_{-0.016}$	639	$0.01426^{+0.005}_{-0.0059}$	$0.01917^{+0.0048}_{-0.0048}$	665
$t_{KS}$	$0.03141^{+0.016}_{-0.015}$	$0.04347^{+0.015}_{-0.015}$	<b>460</b>	$0.01967^{+0.0071}_{-0.0077}$	$0.02735^{+0.0066}_{-0.007}$	<b>472</b>
$t_{SKS}$	$0.03135^{+0.016}_{-0.016}$	$0.04314^{+0.016}_{-0.015}$	769	$0.018^{+0.0065}_{-0.0075}$	$0.02411^{+0.0063}_{-0.0064}$	782
$t_{FGD}$	<b><math>0.03111^{+0.021}_{-0.017}</math></b>	<b><math>0.04221^{+0.019}_{-0.016}</math></b>	4255	<b><math>0.01186^{+0.0054}_{-0.005}</math></b>	<b><math>0.01569^{+0.0048}_{-0.0044}</math></b>	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
Statistic	$\Sigma_{i \neq j}$ -deformation			pow <sub>+</sub> -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{pow+}$	$t$ (s)
$t_{SW}$	$0.008^{+0.0026}_{-0.0033}$	$0.01172^{+0.0022}_{-0.0026}$	682	$0.00297^{+0.0014}_{-0.0015}$	$0.00412^{+0.0013}_{-0.0013}$	704
$t_{KS}$	$1.00821^{+0.005}_{-0.0022}$	$1.01193^{+0.0022}_{-0.0015}$	<b>330</b>	$0.00399^{+0.0016}_{-0.0017}$	$0.00538^{+0.0014}_{-0.0015}$	<b>508</b>
$t_{SKS}$	$0.00699^{+0.0027}_{-0.0031}$	$0.01009^{+0.0026}_{-0.0028}$	833	$0.00327^{+0.0013}_{-0.0015}$	$0.00437^{+0.0013}_{-0.0013}$	837
$t_{FGD}$	<b><math>0.00162^{+0.00043}_{-0.00056}</math></b>	<b><math>0.00213^{+0.00036}_{-0.00041}</math></b>	3859	$0.00271^{+0.0015}_{-0.0014}$	$0.00361^{+0.0014}_{-0.0011}$	3416
$t_{MMD}$	$0.0089^{+0.0058}_{-0.0041}$	$0.01257^{+0.0055}_{-0.004}$	12614	<b><math>0.00241^{+0.0016}_{-0.0012}</math></b>	<b><math>0.00337^{+0.0015}_{-0.0011}</math></b>	11029
$t_{LLR}$	$5e-05^{+3e-05}_{-3e-05}$	$7e-05^{+3e-05}_{-3e-05}$	6857	$0.00029^{+0.00017}_{-0.00017}$	$0.00041^{+0.00017}_{-0.00016}$	5378
Statistic	pow <sub>-</sub> -deformation			$\mathcal{N}$ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{pow-}$	$t$ (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{\mathcal{N}}$	$t$ (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
$t_{KS}$	$0.00427^{+0.0013}_{-0.0014}$	$0.00565^{+0.0013}_{-0.0012}$	<b>502</b>	$0.26557^{+0.046}_{-0.062}$	$0.31516^{+0.036}_{-0.044}$	<b>418</b>
$t_{SKS}$	$0.00361^{+0.0011}_{-0.0012}$	$0.0047^{+0.0011}_{-0.001}$	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	<b><math>0.14094^{+0.018}_{-0.027}</math></b>	<b><math>0.16127^{+0.013}_{-0.016}</math></b>	2623
$t_{MMD}$	<b><math>0.00241^{+0.0016}_{-0.0011}</math></b>	<b><math>0.0034^{+0.0015}_{-0.0011}</math></b>	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	-	-	-
Statistic	$\mathcal{U}$ -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{\mathcal{U}}$	$t$ (s)	$t^{\text{null}}$ (s)		
$t_{SW}$	$0.41249^{+0.072}_{-0.1}$	$0.49115^{+0.057}_{-0.069}$	515	358		
$t_{KS}$	$0.45649^{+0.083}_{-0.1}$	$0.54354^{+0.064}_{-0.073}$	<b>402</b>	<b>224</b>		
$t_{SKS}$	$0.40164^{+0.076}_{-0.096}$	$0.47562^{+0.061}_{-0.07}$	663	702		
$t_{FGD}$	<b><math>0.24366^{+0.031}_{-0.046}</math></b>	<b><math>0.27881^{+0.023}_{-0.027}</math></b>	2511	6325		
$t_{MMD}$	$1.06239^{+0.16}_{-0.22}$	$1.24837^{+0.14}_{-0.14}$	8273	16601		
$t_{LLR}$	-	-	-	-		