${ m CG\ model\ with\ d=20\ and\ n=m=10^5}$						
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.03129^{+0.017}_{-0.017}$	$0.04371^{+0.017}_{-0.016}$	639	$0.01426^{+0.005}_{-0.0059}$	$0.01917^{+0.0048}_{-0.0048}$	665
$t_{\overline{ ext{KS}}}$	$0.03141^{+0.016}_{-0.015}$	$0.04347^{+0.015}_{-0.015}$	460	$0.01967^{+0.0071}_{-0.0077}$	$0.02735^{+0.0066}_{-0.007}$	472
$t_{ m SKS}$	$0.03135^{+0.016}$	$0.04314^{+0.016}_{-0.015}$	769	$0.018^{+0.0065}_{-0.0075}$	$0.02411^{+0.0063}_{-0.0064}$	782
$t_{ m FGD}$	$0.03111^{+0.021}_{-0.017}$	$0.04221^{+0.019}$	4255	$ \begin{array}{c} 0.018^{+0.0065}_{-0.0075} \\ 0.01186^{+0.0054}_{-0.005} \\ \end{array} $	$0.01569^{+0.0048}$	4335
$t_{ m MMD}$	$\begin{array}{c} 0.03103_{-0.016}^{+0.016} \\ 0.03111_{-0.017}^{+0.021} \\ 0.04025_{-0.019}^{+0.025} \\ 0.01895_{-0.0079}^{+0.0063} \\ 0.0189_{-0.0079}^{+0.0064} \end{array}$	$\begin{array}{c} 0.04221_{-0.016} \\ 0.05607_{-0.018}^{+0.023} \\ 0.02309_{-0.0063}^{+0.0059} \\ 0.02297_{-0.0063}^{+0.0057} \end{array}$	9663	$\begin{array}{c} 0.01130_{-0.005} \\ 0.01562_{-0.0074}^{+0.01} \\ 0.00615_{-0.0027}^{+0.0021} \\ 0.00614_{-0.0026}^{+0.0021} \end{array}$	$\begin{array}{c} 0.01303 - 0.0044 \\ 0.02173 + 0.0094 \\ 0.00751 + 0.0019 \\ 0.00754 + 0.0019 \\ 0.00754 + 0.0021 \\ 0.00754 + 0.0025 \\ \end{array}$	10030
$t_{ m NPLM}$	$0.01895^{+0.0063}_{-0.0079}$	$0.02309^{+0.0059}_{-0.0063}$	16247	$0.00615^{+0.0021}_{-0.0027}$	$0.00751^{+0.0019}_{-0.0021}$	17791
$t_{ m NPLM}$	$0.0189^{+0.0064}_{-0.0079}$	$0.02297^{+0.0057}_{-0.0063}$	34529	$0.00614^{+0.0021}_{-0.0026}$	$0.00754^{+0.0019}_{-0.0021}$	38329
$t_{ m LLR}$	$\begin{array}{c} 0.0189^{+0.0004}_{-0.0079} \\ 0.00359^{+0.0024}_{-0.0024} \end{array}$	$0.02297_{-0.0063} \\ 0.00499_{-0.0024}^{+0.0024}$	4610	$\begin{array}{c c} 0.00614^{+0.0021}_{-0.0026} \\ 0.00121^{+0.0007}_{-0.00069} \end{array}$	$0.00754_{-0.00069}^{+0.00069}$ $0.00169_{-0.0007}^{+0.00069}$	5014
$\Sigma_{i \neq j}$ -deformation pow ₊ -deformation						
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.01982^{+0.0057}_{-0.0078}$	$0.02792^{+0.0047}_{-0.0054}$	1111	$0.00297^{+0.0014}_{-0.0015}$	$0.00412^{+0.0013}_{-0.0013}$	704
$t_{\overline{ ext{KS}}}$	$1.0196^{+0.0058}_{-0.0057}$	$1.0239^{+0.013}_{-0.0025}$	1498	$0.00399^{+0.0016}_{-0.0017}$	$0.00538_{-0.0015}^{+0.0014}$	508
$t_{ m SKS}$	$0.02657^{+0.0082}_{-0.01}$	$0.03653^{+0.0075}_{-0.0084}$	1283	$0.00327^{+0.0013}_{-0.0015}$	$0.00437^{+0.0013}_{-0.0013}$	837
$t_{ m FGD}$	$0.00341^{+0.0008}_{-0.0011}$	$0.03653^{+0.0075}_{-0.0084} \\ 0.0044^{+0.0008}_{-0.00082}$	4892	$0.00271^{+0.0015}_{-0.0014}$	$0.00361^{+0.0014}_{-0.0011}$	3416
$t_{ m MMD}$	$0.02162^{+0.014}_{-0.007}$	$0.03066^{+0.013}_{-0.0000}$	11100	$0.00241^{+0.0016}$	$0.00337^{+0.0015}_{-0.0011}$	11029
$t_{ m NPLM}$	$0.0015^{+0.00041}_{-0.0006}$	$0.0018^{+0.0004}_{-0.00045}$	19458	$0.00177^{+0.00062}_{-0.00078}$	$0.00216^{+0.00056}_{-0.00062}$	19801
$t_{ m NPLM}$	$\begin{array}{c} 0.0015^{+0.00041}_{-0.0006} \\ 0.0014^{+0.0005}_{-0.00052} \end{array}$	$\begin{array}{c} -0.0034 \\ 0.0018 \begin{array}{c} +0.0004 \\ -0.00045 \\ 0.0018 \begin{array}{c} +0.00037 \\ -0.0005 \end{array} \end{array}$	41521	$\begin{array}{c} 0.00211_{-0.0012}^{+0.00062} \\ 0.00177_{-0.00078}^{+0.00062} \\ 0.00177_{-0.00078}^{+0.00062} \end{array}$	$\begin{array}{c} -0.0011 \\ 0.00216 {}^{+0.00056}_{-0.00062} \\ 0.00216 {}^{+0.00056}_{-0.00062} \\ 0.00041 {}^{+0.00016}_{-0.00016} \end{array}$	42518
$t_{ m LLR}$	-	-	_	$\begin{array}{c} 0.00177_{-0.00078} \\ 0.00029_{-0.00017}^{+0.00017} \end{array}$	$0.00041^{+0.00017}_{-0.00016}$	5378
	$pow\deformation$			$\mathcal{N} ext{-} ext{deformation}$		
Statistic	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.00332^{+5}_{-0.0012}$	$0.00448^{+5}_{-0.00099}$	636	$0.2383^{+0.041}_{-0.058}$	$0.2828^{+0.032}_{-0.039}$	527
$t_{\overline{ ext{KS}}}$	$0.00427^{+0.0013}_{-0.0014}$	$0.00565^{+0.0013}_{-0.0012}$	502	$0.26557^{+0.046}_{-0.062}$	$0.31516^{+0.036}_{-0.044}$	418
$t_{ m SKS}$	$1.0 00361^{+0.0011}$	$0.0047^{+0.0011}$	826	$0.23289^{+0.042}_{-0.057}$	$0.27403^{+0.034}_{-0.041}$	672
$t_{ m FGD}$	$0.00296^{+0.0012}_{-0.001}$	$0.0039^{+0.0011}_{-0.00093}$	3369	$\mid 0.14094^{+0.018}_{-0.027} \mid$	$0.16127^{+0.013}_{-0.016}$	2623
$t_{ m MMD}$	$0.00241^{+0.0016}_{-0.0011}$	$0.0034^{+0.0015}_{-0.0011}$	11032	$0.60915^{+0.1}_{0.12}$	$0.71813^{+0.08}_{-0.08}$	7611
$t_{ m NPLM}$	$0.0019^{+0.00058}_{-0.00072}$	$0.00231^{+0.00051}_{-0.00058}$	19302		$0.71813_{-0.08}^{+0.010}$ $0.09358_{-0.013}^{+0.01}$	20062
$t_{ m NPLM}$	$0.0019^{+0.00058}_{-0.00072}$	$0.00231^{+0.00051}_{-0.00058}$	40572	$\begin{array}{c} 0.08534^{+0.012}_{-0.019} \\ 0.08374^{+0.012}_{-0.02} \end{array}$	$0.09227^{+0.01}_{-0.013}$	29861
$t_{ m LLR}$	$\begin{array}{c} 0.00301_{-0.0012}^{+0.00012} \\ 0.00296_{-0.001}^{+0.00012} \\ \textbf{0.00241}_{-0.00011}^{+0.00058} \\ 0.0019_{-0.00072}^{+0.00058} \\ 0.0019_{-0.00072}^{+0.00058} \\ 0.00031_{-0.00017}^{+0.00016} \end{array}$	$\begin{array}{c} 0.0041_{-0.001} \\ 0.0039_{-0.00093}^{+0.0011} \\ 0.0034_{-0.0011}^{+0.00051} \\ 0.00231_{-0.00058}^{+0.00051} \\ 0.00231_{-0.00058}^{+0.00051} \\ 0.00043_{-0.00017}^{+0.00017} \end{array}$	5381	-	-	-
$\mathcal{U} ext{-} ext{deformation}$					Timing	
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$t_{ m SW}$	$0.41249^{+0.072}_{-0.1}$	$0.49115^{+0.057}_{-0.069}$	515	358		
$t_{\overline{ ext{KS}}}$	$0.45649^{+0.083}_{-0.1}$	$0.54354^{+0.064}_{-0.073}$	402	224		
$t_{ m SKS}$	$0.40164^{+0.076}_{-0.096}$	$0.47562^{+0.061}_{-0.07}$	663	702		
$t_{ m FGD}$	$0.24366^{+0.031}_{-0.046}$	$0.27881^{+0.023}_{-0.027}$	2511	6325		
$t_{ m MMD}$	$1.06239^{+0.16}_{-0.22}$	$1.24837^{+0.14}_{-0.14}$	8273	16601		
$t_{ m NPLM}$	$0.14755^{+0.021}_{-0.031}$	$0.16279^{+0.016}_{-0.023}$	13832	28270		
$t_{ m NPLM}$	$0.14457^{+0.022}_{-0.035}$	$0.16032^{+0.017}_{-0.024}$	28334	60715		
$t_{ m LLR}$	_	_	_	-		