	MoG n	$\mathbf{d} = \mathbf{d}$	00, q = 1	10, and n = m = 2	$2 \cdot 10^4$	
	μ -deformation			Σ_{ii} -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.06686^{+0.019}_{-0.023}$	$0.08691^{+0.017}_{-0.019}$	698	$0.02176^{+0.0058}_{-0.0075}$	$0.02825^{+0.0052}_{-0.006}$	766
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} -0.0052 \\ -0.0021 \\ -0.0021 \\ 0.05483 \\ -0.017 \\ 0.0917 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ -0.025 \\ 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0.02404 = 0.0037 \\ 0.03721 = 0.0056 \\ 0.02112 = 0.0056 \\ 0.02112 = 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 0.0031 \\ 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$t_{ m SKS}$	$0.05483^{+0.014}_{-0.017}$	$0.07079_{-0.014}^{+0.012}$	737	$0.01903^{+0.0038}_{-0.0051}$	$0.02404^{+0.0031}_{-0.0037}$	813
$t_{ m FGD}$	$0.0917^{+0.024}_{-0.025}$	$0.11605^{+0.021}_{-0.022}$	5212	$0.02962^{+0.0062}_{-0.0077}$	$0.03721^{+0.005}_{-0.0056}$	5272
$t_{ m MMD}$	$0.08171_{-0.019}^{+0.013}$	$0.10334^{+0.013}_{-0.014}$	1992	$0.01681^{+0.0034}_{-0.0038}$	$0.02112^{+0.0029}_{-0.0031}$	2247
$t_{ m LLR}$	$6e - 05^{+4e - 05}_{-4e - 05}$	$9e - 05^{+4}_{-4e-05}$	5633	$1e - 05^{+1e - 05}_{-1e - 05}$	$2e - 05^{+1}_{-1}e^{-05}_{-05}$	6765
$\Sigma_{i \neq j}$ -deformation				pow_+ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.03936^{+0.01}_{-0.014}$	$0.05165^{+0.0081}_{-0.01}$	3389	$0.00863^{+0.0022}_{-0.0029}$	$0.01123^{+0.002}_{-0.0024}$	784
$t_{\overline{ ext{KS}}}$	$1.00219^{+0.00074}_{-0.0017}$	$1.00219^{+0.00098}_{-0.00042}$	10626	$0.00049^{+0.0003}_{-0.00024}$	$0.00084^{+0.00031}_{-0.00032}$	1622
$t_{ m SKS}$	$0.04286^{+0.011}_{-0.015}$	$0.0552^{+0.0099}_{-0.012}$	3693	$0.0077^{+0.0013}_{-0.002}$	$0.00961^{+0.0011}_{-0.0013}$	822
$t_{ m FGD}$	$0.0069^{+0.0015}_{-0.0018}$	$0.0552^{+0.0099}_{-0.012} \ 0.00879^{+0.0013}_{-0.0014}$	9386	$0.01177^{+0.0023}_{-0.0029}$	$0.01473_{-0.0023}^{+0.0023} \\ 0.00762_{-0.0011}^{+0.0011}$	4103
$t_{ m MMD}$	$0.02739^{+0.0079}_{-0.0088}$	$0.0351^{+0.007}_{-0.0078}$	6531	$0.00608^{+0.0012}_{-0.0014}$	$0.00762^{+0.0011}_{-0.0011}$	2406
$t_{ m LLR}$	-	-	-	0.0^{+1e-05}_{-0}	$1e - 05^{+0.0011}_{-1e-05}$	5652
$pow\deformation$			$\mathcal{N} ext{-} ext{deformation}$			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\% ext{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.00879^{+5}_{-0.003}$	$0.01149^{+5}_{-0.0025}$	703	$0.27003^{+0.034}_{-0.053}$	$0.31096^{+0.026}_{-0.036}$	659
$t_{\overline{ ext{KS}}}$	$0.0005^{+0.00031}_{-0.00025}$	$0.00085^{+0.00033}_{-0.00034}$	832	$0.01686\substack{+0.0067 \ -0.0081}$	$0.02454_{-0.0071}^{+0.0062}$	730
SKS	$0.00767^{+0.0014}_{-0.0021}$	$0.00962^{+0.0011}_{-0.0015}$	840	$0.23297^{+0.032}_{-0.049}$	$0.26623^{+0.028}_{-0.034}$	705
$t_{ m FGD}$	$\begin{array}{c} 0.0118^{+0.0024}_{-0.003} \\ 0.00568^{+0.0017}_{-0.0018} \end{array}$	0.01400 ± 0.002	4175	$0.23954^{+0.023}_{-0.034}$	$0.26901^{+0.019}_{-0.021}$	3372
$t_{ m MMD}$	$0.00568^{+0.0017}_{-0.0018}$	$0.01489_{-0.0023}^{+0.0015} \ 0.00733_{-0.0015}^{+0.0015}$	2584	$1.01706^{+0.091}_{-0.13}$	$1.14737^{+0.064}_{-0.077}$	1740
$t_{ m LLR}$	0.0^{+1e-05}_{-0}	$1e - 05^{+0}_{-1e - 05}$	7345	-	-	-
$\mathcal{U} ext{-} ext{deformation}$				Timing		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	t^{null} (s)		
$t_{ m SW}$	$0.46758^{+0.057}_{-0.092}$	$0.53846^{+0.045}_{-0.062}$ $0.03716^{+0.0098}_{-0.01}$ $0.46142^{+0.05}_{-0.057}$ $0.46699^{+0.033}_{-0.04}$	626	313		
$t_{\overline{ ext{KS}}}$	$\begin{array}{c} \textbf{0.02575}^{+0.01}_{-0.012} \\ \textbf{0.02575}^{+0.01}_{-0.012} \\ 0.40136^{+0.059}_{-0.083} \\ 0.41583^{+0.039}_{-0.059} \end{array}$	$0.03716^{+0.0098}_{-0.01}$	716	545		
$t_{ m SKS}$	$0.40136^{+0.059}_{-0.083}$	$0.46142^{+0.057}_{-0.057}$	687	618		
$t_{ m FGD}$	$0.41583^{+0.039}_{-0.059}$	$0.46699^{+0.033}_{-0.04}$	3032	7869		
$t_{ m MMD}$	$1.75184_{-0.22}^{+0.17}$	$1.9784^{+0.13}_{-0.15}$	1931	2411		
$t_{ m LLR}$	_	-	-	_		