		Particle features	with n	$= m = 5 \cdot 10^4$		
	$\mu$ -deformation			$\Sigma_{ii}$ -deformation		
Statistic	$ \epsilon_{95\%{ m CL}} $	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\mid \epsilon_{95\% { m CL}} \mid$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.02633^{+0.0098}_{-0.013}$	$0.03714^{+0.0084}_{-0.0097}$	849	$0.02913^{+0.012}_{-0.0079}$	$0.04108^{+0.0093}_{-0.011}$	824
$t_{\overline{ ext{KS}}}$	$0.0^{+0.0045}_{-0}$	$0.00771^{+0.0022}_{-0.0068}$	49525	$0.0^{+0.013}_{-0}$	$0.01904^{+0.0086}_{-0.011}$	55017
$t_{ m SKS}$	$0.01592^{+0.0046}_{-0.0061}$	$0.02334^{+0.0058}_{-0.0050}$	17572	$0.02735^{+0.0049}$	$0.03362^{+0.0081}_{-0.0071}$	24987
$t_{ m FGD}$	$0.04749^{+0.012}_{-0.024}$	$0.06462^{+0.013}_{-0.013}$	30820	$0.04004^{+0.017}_{-0.012}$	$0.0556^{+0.018}_{-0.016}$	25551
$t_{ m MMD}$	$0.1396^{+0.1}_{-0.065}$	$0.21274^{+0.071}_{-0.065}$	18527	$0.06988^{+0.048}_{-0.031}$	$0.0986_{-0.036}^{+0.037} \\ 0.02442_{-0.0073}^{+0.0055}$	33217
$t_{ m NPLM}$	$\begin{array}{c} 0.1396^{+0.1}_{-0.065} \\ 0.01^{+0.0029}_{-0.0039} \end{array}$	$\begin{array}{c} -0.0039 \\ 0.06462^{+0.013}_{-0.013} \\ 0.21274^{+0.071}_{-0.065} \\ 0.0117^{+0.0026}_{-0.0037} \end{array}$	50262	$\begin{array}{c} 0.02130 - 0.01 \\ 0.04004 + 0.017 \\ 0.06988 + 0.048 \\ 0.031 \\ 0.02053 + 0.0062 \\ 0.0072 \end{array}$	$0.02442^{+0.0055}_{-0.0073}$	63916
	$\Sigma_{i \neq j}$ -deformation			$pow_+$ -deformation		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.04883^{+0.012}_{-0.015}$	$0.06979^{+0.0097}_{-0.016}$	1966	$0.02745^{+0.011}_{-0.0075}$	$0.03872^{+0.0088}_{-0.011}$	806
$t_{\overline{ ext{KS}}}$	$0.99933^{+0.0085}_{-0.014}$	$1.01732^{+0.006}_{-0.0079}$	11225	$0.0^{+0.0066}_{-0}$	$0.01141^{+0.0073}_{-0.011}$	46010
$t_{ m SKS}$	$0.04267^{+0.018}_{-0.012}$	$0.06018^{+0.014}_{-0.013}$	29568	$0.03594^{+0.021}_{-0.016}$	$0.05069^{+0.011}_{-0.014}$	24821
$t_{ m FGD}$	$0.02641^{+0.0058}_{-0.012}$	$0.03966^{+0.006}_{-0.0079}$	28408	$0.02459^{+0.013}_{-0.012}$	$0.03501^{+0.013}_{-0.012}$	25798
$t_{ m MMD}$	$0.25965^{+0.068}_{-0.086}$	$0.35327^{+0.073}_{-0.056}$	16061	$0.02054^{+0.014}_{-0.0071}$	$0.02657^{+0.013}_{-0.0091}$	26195
$t_{ m NPLM}$	$0.098^{+0.019}_{-0.021}$	$0.10798^{+0.018}_{-0.02}$	37094	$0.02759^{+0.0087}_{-0.012}$	$0.03227^{+0.0062}_{-0.0084}$	52579
$pow\deformation$			$\mathcal{N} ext{-} ext{deformation}$			
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)
$t_{ m SW}$	$0.02745^{+0.011}_{-0.014}$	$0.03872^{+0.0088}_{-0.01}$	809	$\begin{array}{c} 0.10733^{+0.022}_{-0.026} \\ \textbf{0.0656}^{+0.016}_{-0.053} \\ 0.08456^{+0.013}_{-0.013} \\ \end{array}$	$0.13357^{+0.016}_{-0.016}$	691
$t_{\overline{ ext{KS}}}$	$0.0^{+0.0095}_{-0}$	$0.01323^{+0.0069}_{-0.0085}$ $0.04837^{+0.014}_{-0.015}$	45685	$0.0656^{+0.016}_{-0.053}$	$0.08707^{+0.016}_{-0.016}$ $0.09935^{+0.0089}_{-0.01}$	7484
$t_{ m SKS}$	$0.03777^{+0.015}_{-0.017}$	$0.04837^{+0.014}_{-0.015}$	15966	$0.08456^{+0.013}_{-0.013}$	$0.09935^{+0.0089}_{-0.01}$	18276
$t_{ m FGD}$	$0.02241^{+0.019}_{-0.01}$	$0.0353^{+0.019}_{-0.011}$	26549	$0.14608^{+0.034}_{-0.038}$	$0.1758_{-0.021}^{+0.023}$	23330
$t_{ m MMD}$	$0.02077^{+0.017}_{-0.01}$	$0.02939^{+0.016}_{-0.0089}$	20263	$0.33827^{+0.088}_{-0.089}$	$0.37964_{-0.073}^{+0.091}$	19908
$t_{ m NPLM}$	$0.02358^{+0.0073}_{-0.01}$	$0.02822^{+0.0066}_{-0.0076}$	49370	$0.03585^{+0.0063}_{-0.0088}$	$0.37964^{+0.091}_{-0.073} \\ 0.03943^{+0.0049}_{-0.0057}$	36790
$\mathcal{U} ext{-} ext{deformation}$				Timing		
Statistic	$\epsilon_{95\%\mathrm{CL}}$	$\epsilon_{99\%\mathrm{CL}}$	t (s)	$t^{\text{null}}$ (s)		
$t_{ m SW}$	$0.1889^{+0.038}_{-0.046}$	$0.2351^{+0.028}_{-0.04}$	625	150		
$t_{\overline{ ext{KS}}}$	$0.10693^{+0.022}_{-0.086}$	$0.14193^{+0.021}_{-0.019} \\ 0.17795^{+0.0057}_{-0.023}$	13565	2126		
$t_{ m SKS}$	$0.14453^{+0.02}_{-0.028}$	$0.17795^{+0.0057}_{-0.023}$	17723	4818		
$t_{ m FGD}$	$ \begin{array}{c c} 0.14453^{+0.028}_{-0.028} \\ 0.25168^{+0.053}_{-0.065} \end{array} $	$0.30289^{+0.04}_{-0.036}$	23243	7351		
$t_{ m MMD}$	$0.58039^{+0.17}_{-0.15}$	$0.6876^{+0.14}_{-0.14}$	25557	3880		
$t_{ m NPLM}$	$0.06235^{+0.0092}_{-0.011}$	$0.06766^{+0.0073}_{-0.0076}$	40531	6457		