

Particle features with $n = m = 10^4$						
Statistic	μ -deformation			Σ_{ii} -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)
t_{SW}	$0.05604^{+0.02}_{-0.027}$	$0.08216^{+0.02}_{-0.018}$	666	$0.06258^{+0.019}_{-0.031}$	$0.08827^{+0.02}_{-0.023}$	665
$t_{\overline{KS}}$	$0.01913^{+0.0053}_{-0.0097}$	$0.02873^{+0.0044}_{-0.0066}$	780	$0.04819^{+0.016}_{-0.026}$	$0.06797^{+0.015}_{-0.016}$	901
t_{SKS}	$0.0359^{+0.009}_{-0.015}$	$0.05064^{+0.011}_{-0.0091}$	1700	$0.05551^{+0.017}_{-0.017}$	$0.07997^{+0.011}_{-0.023}$	1814
t_{FGD}	$0.10082^{+0.028}_{-0.047}$	$0.14525^{+0.02}_{-0.026}$	2099	$0.08325^{+0.038}_{-0.038}$	$0.1248^{+0.037}_{-0.032}$	2281
t_{MMD}	$0.35978^{+0.16}_{-0.21}$	$0.42433^{+0.21}_{-0.077}$	1667	$0.14414^{+0.14}_{-0.074}$	$0.19209^{+0.11}_{-0.064}$	1976
Statistic	$\Sigma_{i \neq j}$ -deformation			pow ₊ -deformation		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}$	t (s)	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{pow+}$	t (s)
t_{SW}	$0.04972^{+0.015}_{-0.022}$	$0.07804^{+0.013}_{-0.017}$	1152	$0.0551^{+0.027}_{-0.026}$	$0.08079^{+0.02}_{-0.024}$	646
$t_{\overline{KS}}$	$1.03125^{+0.014}_{-0.011}$	$1.05323^{+0.0083}_{-0.016}$	779	$0.03145^{+0.0096}_{-0.017}$	$0.04437^{+0.01}_{-0.01}$	1173
t_{SKS}	$0.04032^{+0.016}_{-0.015}$	$0.05911^{+0.015}_{-0.015}$	2300	$0.07643^{+0.045}_{-0.029}$	$0.1222^{+0.036}_{-0.035}$	2054
t_{FGD}	$0.0337^{+0.011}_{-0.015}$	$0.0506^{+0.0077}_{-0.0089}$	3511	$0.04829^{+0.037}_{-0.023}$	$0.07078^{+0.029}_{-0.024}$	2509
t_{MMD}	$0.34826^{+0.1}_{-0.15}$	$0.5568^{+0.16}_{-0.1}$	1814	$0.04086^{+1.9}_{-0.02}$	$0.0578^{+1.9}_{-0.024}$	2221
Statistic	pow ₋ -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}	$0.06258^{+0.019}_{-0.033}$	$0.08256^{+0.026}_{-0.018}$	562	$0.15131^{+0.044}_{-0.041}$	$0.20084^{+0.03}_{-0.04}$	484
$t_{\overline{KS}}$	$0.03145^{+0.0096}_{-0.018}$	$0.0415^{+0.013}_{-0.0096}$	1304	$0.11951^{+0.025}_{-0.034}$	$0.14874^{+0.018}_{-0.02}$	1189
t_{SKS}	$0.08005^{+0.025}_{-0.03}$	$0.1025^{+0.029}_{-0.03}$	2153	$0.1299^{+0.015}_{-0.03}$	$0.15264^{+0.014}_{-0.02}$	1923
t_{FGD}	$0.04585^{+0.045}_{-0.016}$	$0.08288^{+0.042}_{-0.033}$	2697	$0.22562^{+0.048}_{-0.06}$	$0.27252^{+0.041}_{-0.033}$	2163
t_{MMD}	$0.05178^{+0.032}_{-0.029}$	$0.06297^{+0.044}_{-0.014}$	2784	$0.47936^{+0.19}_{-0.14}$	$0.55252^{+0.16}_{-0.093}$	2867
Statistic	\mathcal{U} -deformation			Timing		
	$\epsilon_{95\%CL}$	$\epsilon_{99\%CL}^{\mathcal{U}}$	t (s)	t^{null} (s)		
t_{FGD}	$0.38649^{+0.067}_{-0.1}$	$0.47155^{+0.066}_{-0.058}$	2050	627		
t_{LLR}	-	-	-	-		
t_{MMD}	$0.79199^{+0.31}_{-0.19}$	$0.97349^{+0.23}_{-0.19}$	2427	381		
t_{SKS}	$0.21465^{+0.043}_{-0.039}$	$0.26715^{+0.032}_{-0.034}$	1874	416		
t_{SW}	$0.28278^{+0.045}_{-0.09}$	$0.35194^{+0.041}_{-0.07}$	446	145		
$t_{\overline{KS}}$	$0.1977^{+0.029}_{-0.055}$	$0.24605^{+0.029}_{-0.032}$	1225	179		