

Table 1: Results

Problem Size	Method	LDE	RMSD	Time	Improv time
pdb1a57 698	Classic	2.813×10^{-18}	1.8861×10^{-12}	8.1179×10^{-3}	90.641 16
	Quaternion	2.786×10^{-18}		4.2582×10^{-3}	
pdb1b4c 1108	Classic	1.432×10^{-11}	1.0913×10^{-12}	7.9377×10^{-3}	92.244 56
	Quaternion	1.432×10^{-11}		4.1289×10^{-3}	
pdb1ba5 320	Classic	3.546×10^{-21}	4.1376×10^{-12}	5.8568×10^{-4}	64.379 08
	Quaternion	3.767×10^{-21}		3.5630×10^{-4}	