

Table 1: Results

Problem Size	Method	MDE	RMSD	Time	Improv time
pdb1ba5 320	Classic	$2.632 \times 10^{-7}$		$5.4693 \times 10^{-4}$	
	Quaternion	$2.632 \times 10^{-7}$	$4.1595 \times 10^{-12}$	$3.1388 \times 10^{-4}$	74.247
pdb1d1n 594	Classic	$1.990 \times 10^{-6}$		$9.6333 \times 10^{-2}$	
	Quaternion	$1.990 \times 10^{-6}$	$1.3648 \times 10^{-12}$	$4.9248 \times 10^{-2}$	95.608
pdb1dp3 332	Classic	$3.490 \times 10^{-6}$		$1.6654 \times 10^{-2}$	
	Quaternion	$3.490 \times 10^{-6}$	$2.1817 \times 10^{-12}$	$8.0293 \times 10^{-3}$	107.420
pdb1du1 122	Classic	$6.874 \times 10^{-6}$		$2.3809 \times 10^{-4}$	
	Quaternion	$6.874 \times 10^{-6}$	$1.3307 \times 10^{-12}$	$1.3132 \times 10^{-4}$	81.297
pdb1fcl 338	Classic	$1.754 \times 10^{-6}$		$1.5876 \times 10^{-1}$	
	Quaternion	$1.754 \times 10^{-6}$	$8.3186 \times 10^{-13}$	$7.9157 \times 10^{-2}$	100.567