

Table 1: Results

Problem Size	Method	MDE	RMSD	Time	Improv time
pdb1ba5 320	Classic	9.359×10^{-13}		3.4364×10^{-4}	
	Quaternion	1.070×10^{-12}	4.1376×10^{-12}	2.2934×10^{-4}	49.840
pdb1d1n 594	Classic	1.005×10^{-11}		5.7182×10^{-4}	
	Quaternion	9.672×10^{-12}	1.2689×10^{-12}	3.9727×10^{-4}	43.939
pdb1dp3 332	Classic	7.704×10^{-13}		2.8786×10^{-4}	
	Quaternion	8.939×10^{-13}	1.4697×10^{-12}	1.9376×10^{-4}	48.569
pdb1du1 122	Classic	8.225×10^{-13}		9.8459×10^{-5}	
	Quaternion	1.258×10^{-12}	1.2376×10^{-12}	6.6017×10^{-5}	49.142
pdb1fcl 338	Classic	4.542×10^{-12}		4.3418×10^{-4}	
	Quaternion	4.515×10^{-12}	8.0786×10^{-13}	2.8700×10^{-4}	51.284

```
time_limit=3 seconds
function_of_central_tendency_meansure=median
precision=1.0e-5
precision_virtual=1.0e-8
benchmark_seconds=5
benchmark_samples_limit=100000
all_solutions=False
list_of_problems=["pdb1ba5", "pdb1d1n", "pdb1dp3", "pdb1du1", "pdb1fc1"]
start_time=2023-01-23T11:51:39.235
end_time=2023-01-23T11:52:31.941
```
