Solar System

Sequential Time:
TIme Taken: 3.43914 seconds

Parallel Time(s):
w/ 2 Threads - Time taken: 289.732 seconds
w/ 4 Threads - Time taken: 809.736 seconds
w/ 8 Threads - Time taken: 1841.88 seconds

It looks like being parallel with only 10 bodies is causing it to have a lot of overhead, resulting in worse time than sequential.

100 Particles:

Sequential Time: Time taken: 0.735622 seconds

Parallel Time(s):
w/ 2 Threads - Time taken: 0.996224 seconds
w/ 4 Threads - Time taken: 2.03797 seconds
w/ 8 Threads - Time taken: 4.13333 seconds
Not enough work still to fully take advantage of parallelism

1000 particles:

Sequential Time: Time taken: 70.5531 seconds

Parallel Time(s):
w/ 2 Threads - Time taken: 36.8985 seconds
w/ 4 Threads - Time taken: 37.9687 seconds
w/ 8 Threads - Time taken: 40.0422 seconds

Works for this one with parallel but start seeing diminishing returns with more threads than 2. Still faster than sequential though, it just does not scale in a linear fashion