In this test case, get a speedup of ~2x
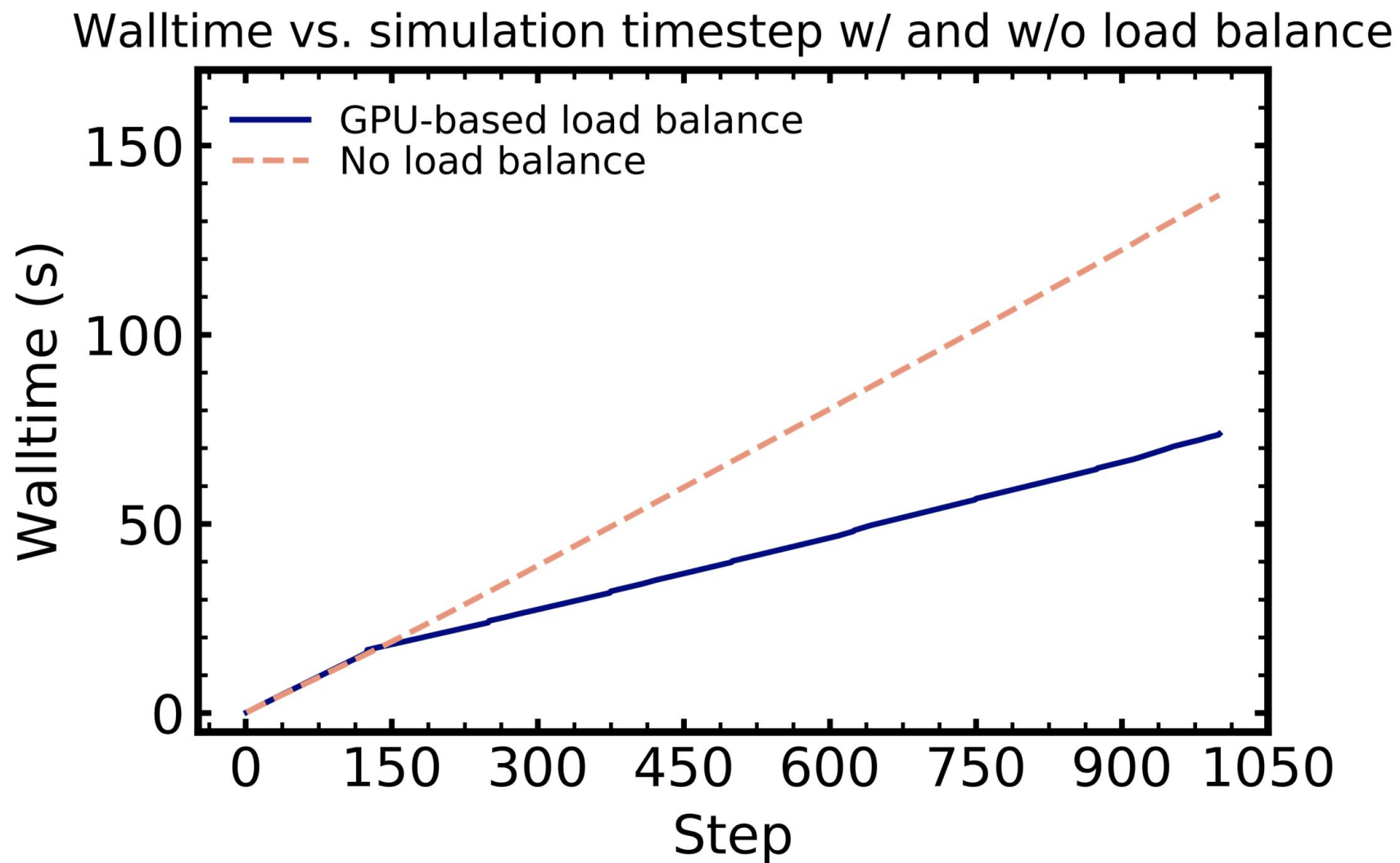
- Red curve shows case with no load balancing
- Blue curve shows case with load balance every 125 steps
- Prior to the first load balance (step=125), work is unevenly distributed over GPUs
- After load balance, work is distributed more evenly → performance improvement

Walltime vs. simulation timestep w/ and w/o load balance

Overhead incurred with CUPTI timers is small

- Comparison of walltime for WarpX simulation with CUPTI initialized (dark blue) and without CUPTI (light red)
- Agreement between red and blue demonstrates that there is only a small overhead when using CUPTI

Walltime vs. simulation timestep w/ and w/o CUPTI trace