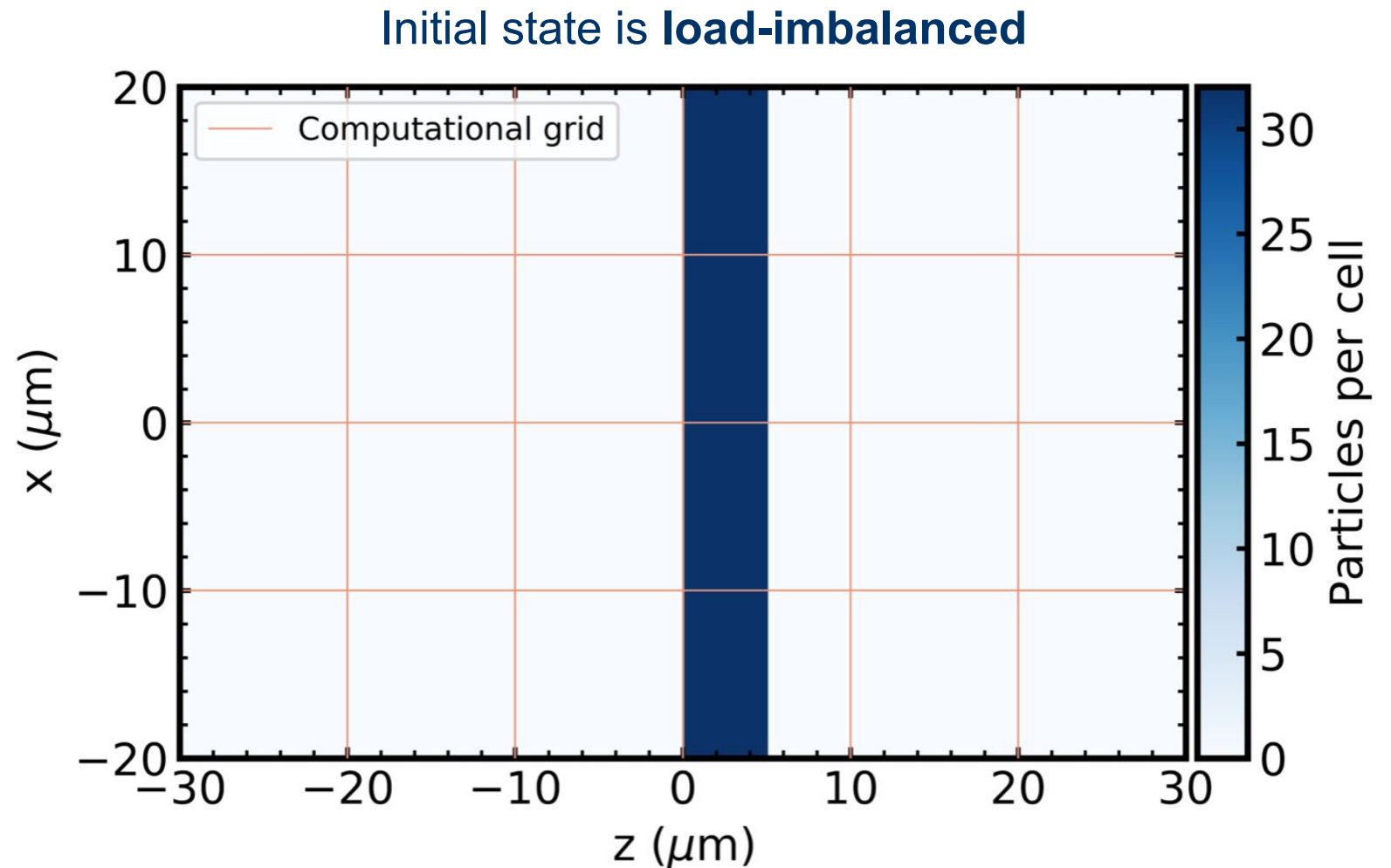


Used CUPTI Callback timing as input to load balancing modules for a WarpX test problem

- Plot to the right is the 2D average along y of particles per cell at $t = 0$
- Dark blue stripe is a region of high particle density
- White region has no particles
- Light red lines show domain decomposition
- Load-imbalanced problem, by construction



Used CUPTI Callback timing as input to load balancing modules for a WarpX test problem

- Plot to the right shows time evolution of 'cost' per GPU
- Load balance every 25 steps (for this case)
- Cost initially imbalanced (ranks, 4 – 7 do most of the work)
- Work is more evenly distributed after step 25

Cost vs. Rank (load balance based on GPU particle push)
step = 1; load_balance_int = 25;

