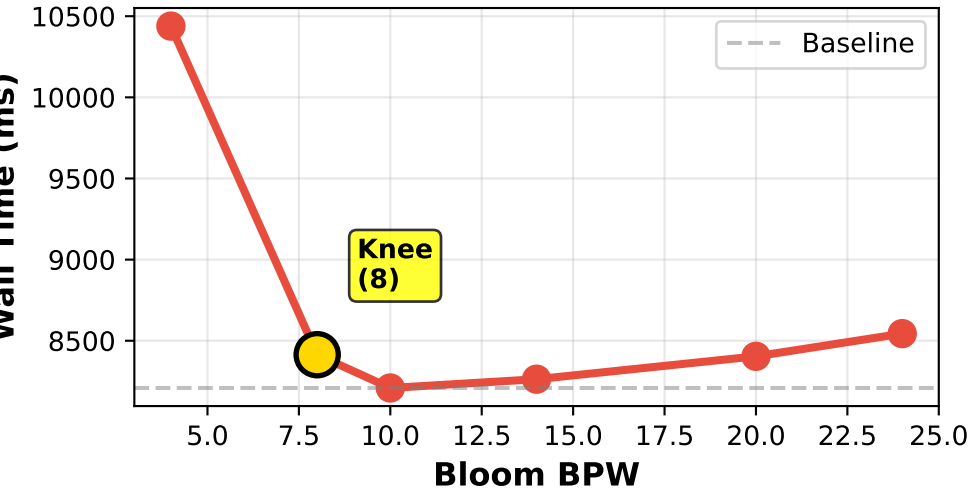
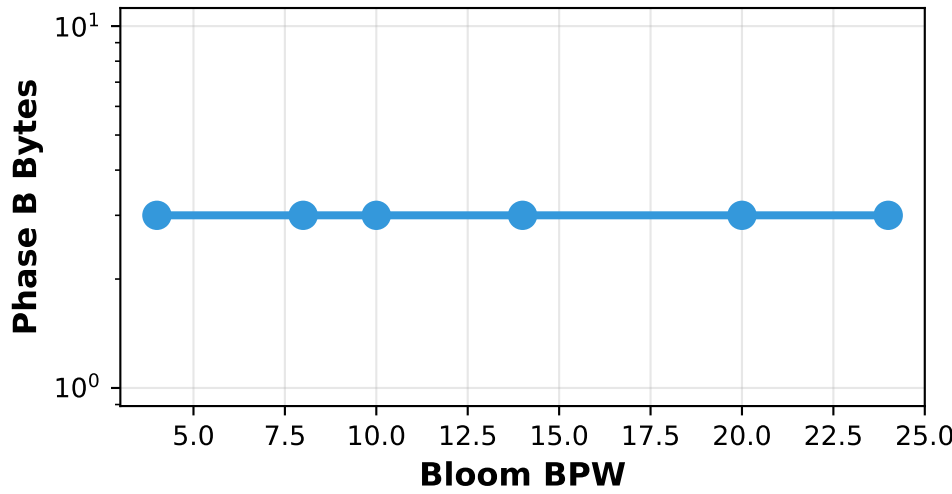


R=1: Single-Factor Parameter Sweeps (wall_time_ms)

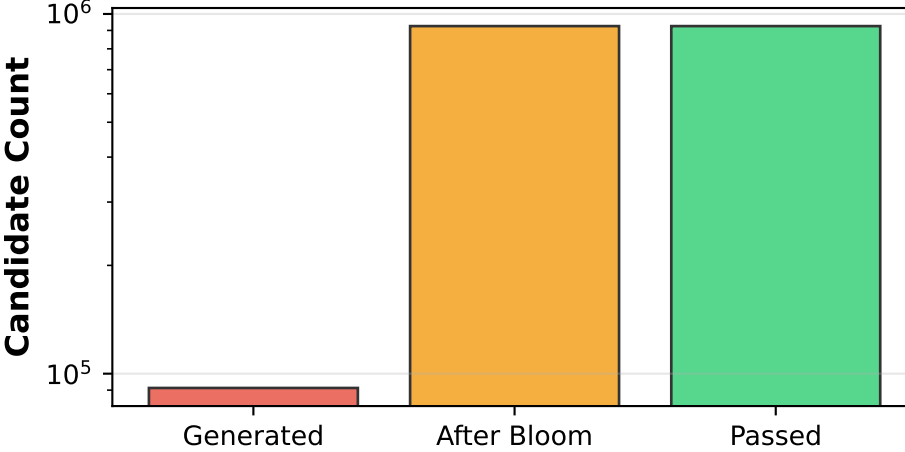
BPW Sweep: Runtime



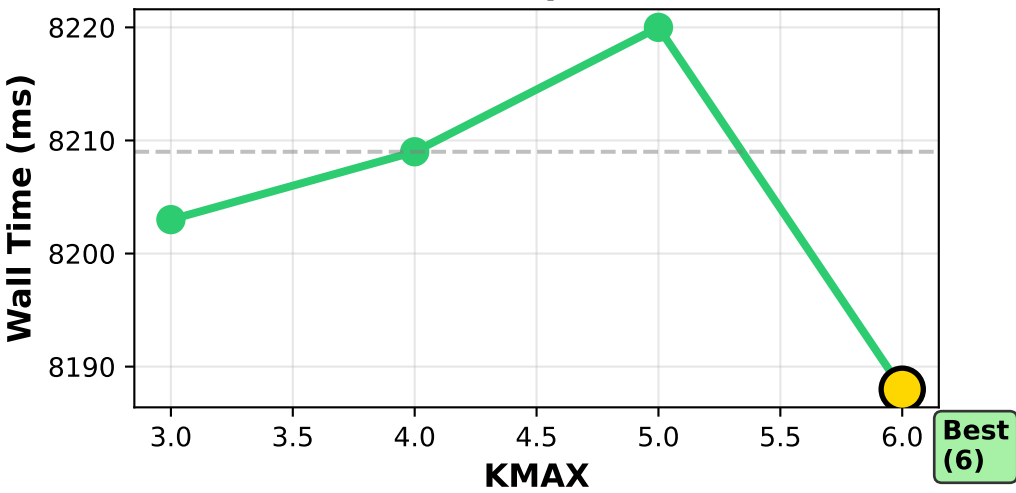
BPW Sweep: Phase B Communication



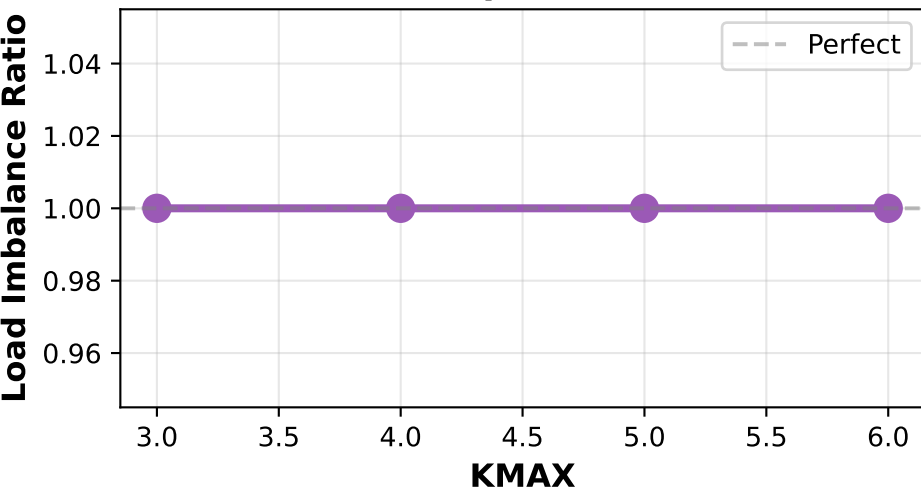
Candidate Funnel at BPW=8



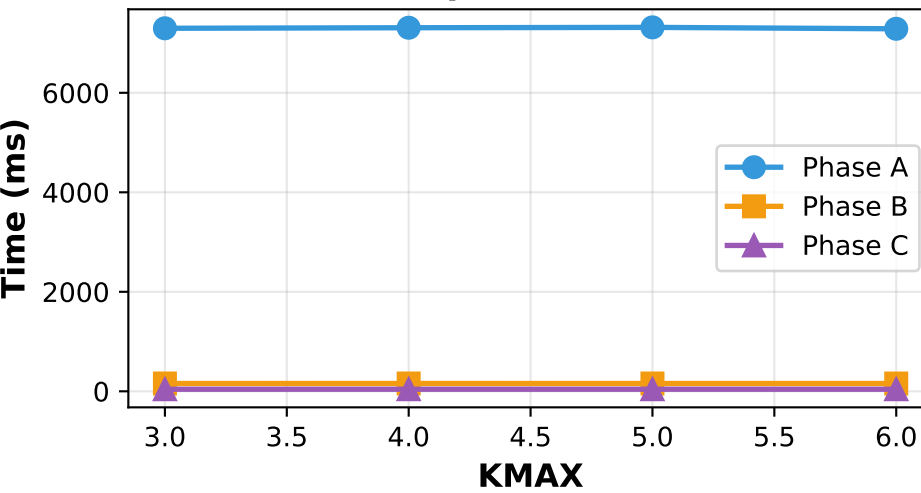
KMAX Sweep: Runtime



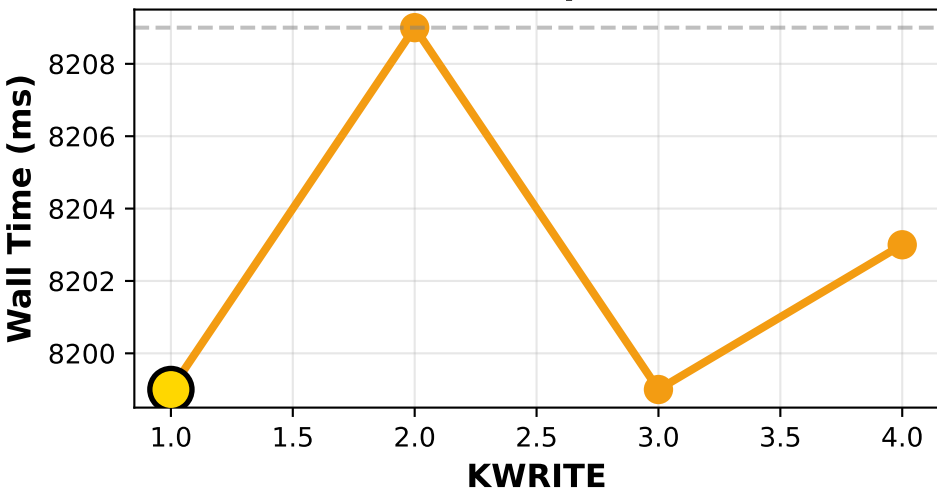
KMAX Sweep: Load Balance



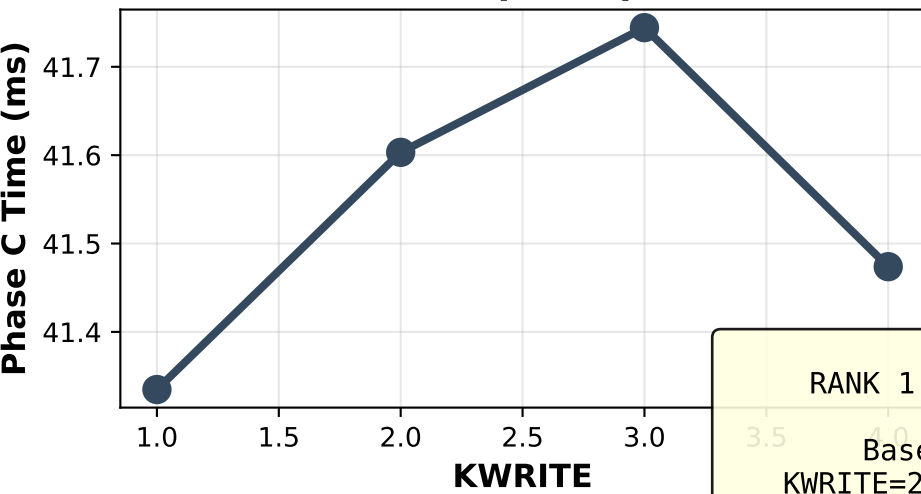
KMAX Sweep: Phase Breakdown



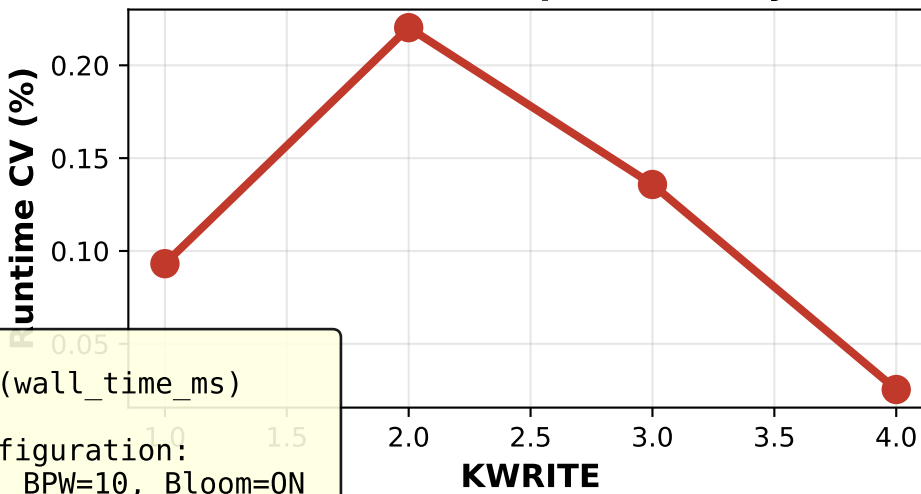
KWRITE Sweep: Runtime



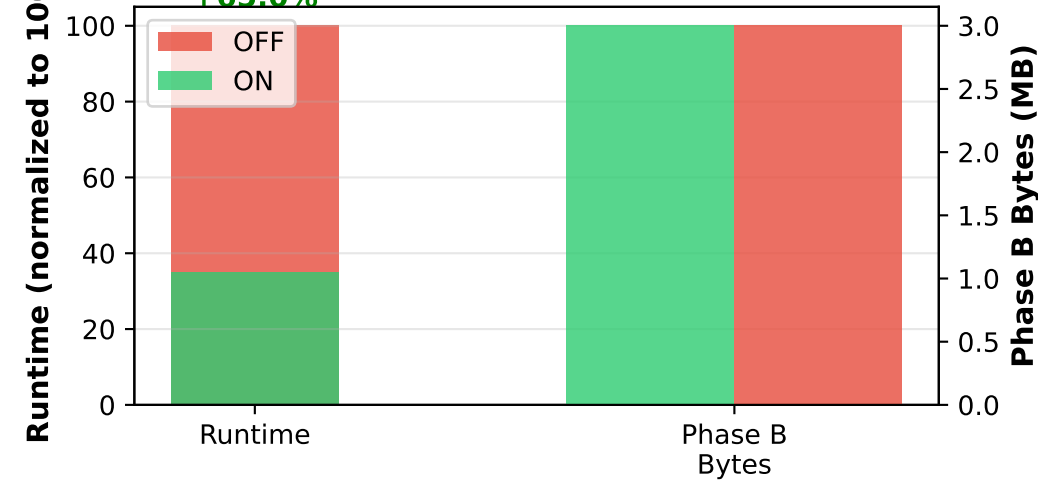
KWRITE Sweep: Output Phase



KWRITE Sweep: Variability



Bloom Filter Impact



RANK 1 SUMMARY (wall_time_ms)

Baseline Configuration:
KWRITE=2, KMAX=4, BPW=10, Bloom=ON
Time: 8209 ms
CV: 0.22%

Best Configurations:
BPW sweep: 10 → 8209 ms (0.0% faster)
KMAX sweep: 6 → 8188 ms
KWRITE sweep: 1 → 8199 ms

Phase Breakdown (baseline):

Phase A: 7308 ms (89.0%)
Phase B: 157 ms (1.9%)
Phase C: 42 ms (0.5%)

Communication:

Total Messages: 51224298
Total Bytes: 1.19e+07
Load Balance: 1.00

Memory:

Peak RSS: 0 MB

R=1: BPW × KMAX Interaction (KWRITE=2, Bloom ON)

