

Outline of the report

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Reference

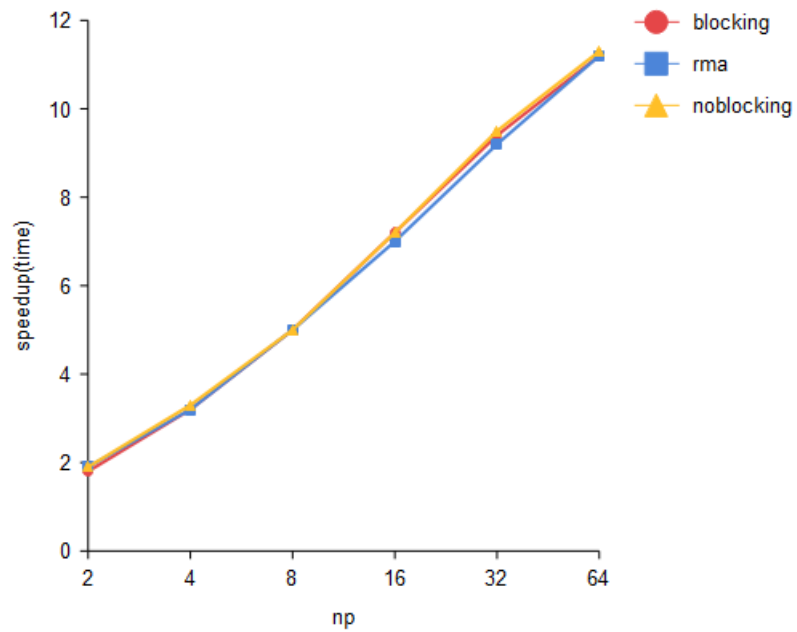
Serial

| | | |
|-----------|----------|----------|
| grid size | 1600*400 | 1200*300 |
| time(s) | 4250.633 | 1773.141 |

MPI

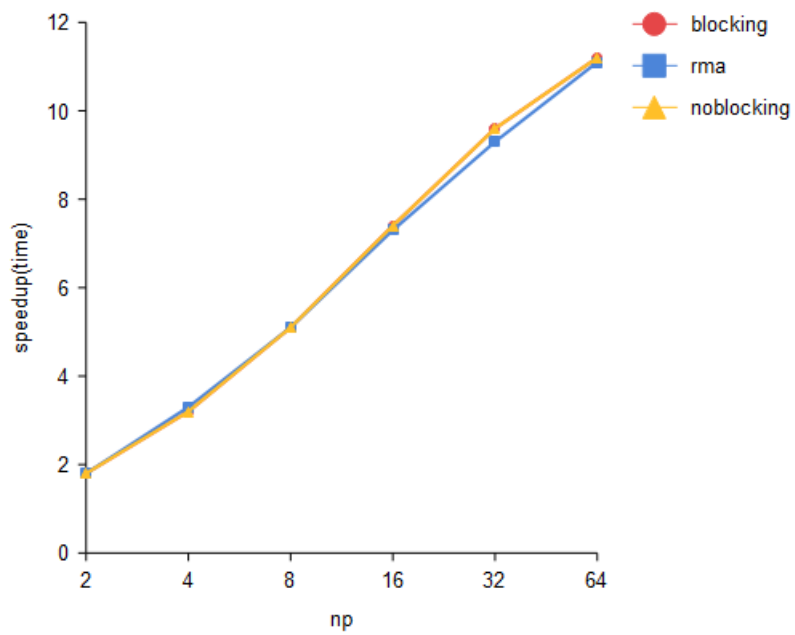
| | | | | |
|----------------------|--------------|----------|----------|------------|
| grid size = 1600*400 | np \ time(s) | blocking | rma | noblocking |
| | 2 | 2350.1 | 2287.194 | 2287.077 |
| | 4 | 1310.905 | 1321.401 | 1296.423 |
| | 8 | 843.483 | 846.664 | 843.649 |
| | 16 | 586.354 | 603.762 | 588.463 |
| | 32 | 451.438 | 462.334 | 448.229 |
| | 64 | 379.448 | 380.123 | 376.866 |

| | | | | |
|----------------------|--------------------|----------|------|------------|
| grid size = 1600*400 | np \ speedup(time) | blocking | rma | noblocking |
| | 2 | 1.8 | 1.9 | 1.9 |
| | 4 | 3.2 | 3.2 | 3.3 |
| | 8 | 5.0 | 5.0 | 5.0 |
| | 16 | 7.2 | 7.0 | 7.2 |
| | 32 | 9.4 | 9.2 | 9.5 |
| | 64 | 11.2 | 11.2 | 11.3 |



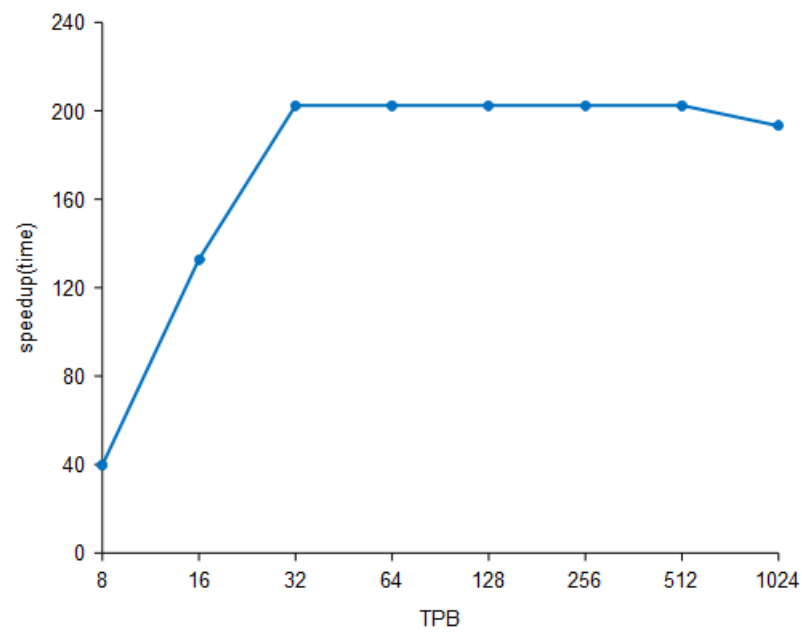
| | | | | |
|----------------------|--------------|----------|---------|------------|
| grid size = 1200*300 | np \ time(s) | blocking | rma | noblocking |
| | 2 | 991.542 | 962.931 | 987.986 |
| | 4 | 547.756 | 539.612 | 549.437 |
| | 8 | 344.838 | 346.727 | 345.201 |
| | 16 | 240.081 | 242.341 | 239.315 |
| | 32 | 185.228 | 190.71 | 185.438 |
| | 64 | 158.259 | 160.123 | 158.843 |

| | | | | |
|----------------------|--------------------|----------|------|------------|
| grid size = 1200*300 | np \ speedup(time) | blocking | rma | noblocking |
| | 2 | 1.8 | 1.8 | 1.8 |
| | 4 | 3.2 | 3.3 | 3.2 |
| | 8 | 5.1 | 5.1 | 5.1 |
| | 16 | 7.4 | 7.3 | 7.4 |
| | 32 | 9.6 | 9.3 | 9.6 |
| | 64 | 11.2 | 11.1 | 11.2 |



CUDA

| | | | | | | | | | | |
|----------------------|---------------|------|------|-------|-------|-------|-------|-------|-------|-------|
| grid size = 1600*400 | TPB | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024 |
| | time(s) | 107 | 107 | 32 | 21 | 21 | 21 | 21 | 21 | 22 |
| grid size = 1600*400 | TPB | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024 |
| | speedup(time) | 39.7 | 39.7 | 132.8 | 202.4 | 202.4 | 202.4 | 202.4 | 202.4 | 193.2 |



| | | | | | | | | | | |
|----------------------|---------------|------|------|------|-------|-----|-----|-----|-------|-------|
| grid size = 1200*300 | TPB | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024 |
| | time(s) | 45 | 45 | 45 | 10 | 9 | 9 | 9 | 10 | 10 |
| grid size = 1200*300 | TPB | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024 |
| | speedup(time) | 39.4 | 39.4 | 39.4 | 177.3 | 197 | 197 | 197 | 177.3 | 177.3 |

