

start:

weak speedup 2000:

|     | iter | ls iter | speedup  | time     |
|-----|------|---------|----------|----------|
| 1   | 45   | 90      | 1.000000 | 0.859481 |
| 2:  | 37   | 89      | 0.472807 | 1.817826 |
| 3:  | 43   | 127     | 0.447315 | 1.921423 |
| 4:  | 40   | 132     | 0.406727 | 2.113164 |
| 5:  | 44   | 125     | 0.364616 | 2.357221 |
| 6:  | 58   | 173     | 0.350243 | 2.453954 |
| 7:  | 46   | 146     | 0.191906 | 4.478650 |
| 8:  | 58   | 185     | 0.145208 | 5.918950 |
| 9:  | 54   | 176     | 0.171052 | 5.024663 |
| 10: | 72   | 244     | 0.115591 | 7.435530 |
| 11: | 79   | 267     | 0.112851 | 7.616056 |
| 12: | 76   | 250     | 0.113129 | 7.597348 |

weak speedup 200:

|     | iter | ls iter | speedup  | time     |
|-----|------|---------|----------|----------|
| 1   | 53   | 106     | 1.000000 | 0.127508 |
| 2:  | 45   | 106     | 0.484821 | 0.263000 |
| 3:  | 45   | 124     | 0.385781 | 0.330519 |
| 4:  | 37   | 107     | 0.404373 | 0.315323 |
| 5:  | 46   | 128     | 0.158860 | 0.802643 |
| 6:  | 55   | 156     | 0.165566 | 0.770133 |
| 7:  | 57   | 165     | 0.156898 | 0.812680 |
| 8:  | 72   | 222     | 0.098669 | 1.292274 |
| 9:  | 56   | 179     | 0.119617 | 1.065969 |
| 10: | 73   | 227     | 0.093556 | 1.362899 |
| 11: | 63   | 195     | 0.099766 | 1.278066 |
| 12: | 69   | 217     | 0.089749 | 1.420724 |

weak speedup2 1000:

|     | iter | ls iter | speedup  | time     |
|-----|------|---------|----------|----------|
| 1   | 41   | 91      | 1.000000 | 0.401128 |
| 2:  | 37   | 96      | 0.696832 | 0.575645 |
| 3:  | 46   | 129     | 0.515111 | 0.778721 |
| 4:  | 42   | 144     | 0.213971 | 1.874684 |
| 5:  | 50   | 152     | 0.339513 | 1.181480 |
| 6:  | 50   | 160     | 0.254702 | 1.574891 |
| 7:  | 45   | 153     | 0.192182 | 2.087232 |
| 8:  | 45   | 164     | 0.181110 | 2.214832 |
| 9:  | 82   | 334     | 0.083459 | 4.806271 |
| 10: | 101  | 390     | 0.074519 | 5.382922 |
| 11: | 93   | 374     | 0.074664 | 5.372452 |
| 12: | 101  | 414     | 0.069169 | 5.799240 |

weak speedup3 1000:

|     | iter | ls iter | speedup  | time     |
|-----|------|---------|----------|----------|
| 1   | 41   | 89      | 1.000000 | 0.315166 |
| 2:  | 21   | 51      | 1.082955 | 0.291024 |
| 3:  | 28   | 71      | 0.391642 | 0.804730 |
| 4:  | 31   | 89      | 0.565148 | 0.557670 |
| 5:  | 18   | 55      | 0.888242 | 0.354820 |
| 6:  | 32   | 92      | 0.165987 | 1.898738 |
| 7:  | 31   | 94      | 0.233707 | 1.348553 |
| 8:  | 22   | 66      | 0.179363 | 1.757138 |
| 9:  | 34   | 105     | 0.223035 | 1.413077 |
| 10: | 32   | 96      | 0.208504 | 1.511558 |
| 11: | 31   | 93      | 0.233390 | 1.350385 |
| 12: | 35   | 105     | 0.200371 | 1.572913 |

weak speedup3 20000:

|     | iter | ls iter | speedup  | time      |
|-----|------|---------|----------|-----------|
| 1   | 23   | 59      | 1.000000 | 3.780155  |
| 2:  | 5    | 22      | 1.459086 | 2.590770  |
| 3:  | 6    | 27      | 1.298304 | 2.911611  |
| 4:  | 7    | 30      | 1.216140 | 3.108322  |
| 5:  | 8    | 32      | 1.075323 | 3.515367  |
| 6:  | 19   | 55      | 0.327574 | 11.539833 |
| 7:  | 20   | 58      | 0.308237 | 12.263805 |
| 8:  | 11   | 37      | 0.447060 | 8.455594  |
| 9:  | 16   | 53      | 0.312488 | 12.096976 |
| 10: | 17   | 53      | 0.315706 | 11.973651 |
| 11: | 17   | 52      | 0.313133 | 12.072056 |
| 12: | 17   | 51      | 0.322596 | 11.717937 |

weak speedup3 2000:

|     | iter | ls iter | speedup  | time     |
|-----|------|---------|----------|----------|
| 1   | 27   | 61      | 1.000000 | 0.416227 |
| 2:  | 17   | 47      | 0.852910 | 0.488008 |
| 3:  | 18   | 51      | 0.738508 | 0.563605 |
| 4:  | 21   | 63      | 0.595753 | 0.698657 |
| 5:  | 20   | 54      | 0.302030 | 1.378098 |
| 6:  | 34   | 91      | 0.251068 | 1.657828 |
| 7:  | 33   | 93      | 0.181390 | 2.294653 |
| 8:  | 19   | 57      | 0.301265 | 1.381598 |
| 9:  | 30   | 94      | 0.170663 | 2.438877 |
| 10: | 22   | 68      | 0.235594 | 1.766715 |
| 11: | 14   | 44      | 0.367692 | 1.131999 |
| 12: | 15   | 47      | 0.333008 | 1.249900 |

weak speedup 4000:

|     | iter | ls iter | speedup  | time      |
|-----|------|---------|----------|-----------|
| 1   | 45   | 91      | 1.000000 | 1.946883  |
| 2:  | 40   | 108     | 0.586979 | 3.316787  |
| 3:  | 39   | 119     | 0.514602 | 3.783276  |
| 4:  | 40   | 140     | 0.454130 | 4.287060  |
| 5:  | 3    | 12      | 0.255834 | 7.609954  |
| 6:  | 18   | 59      | 0.264340 | 7.365083  |
| 7:  | 23   | 86      | 0.129575 | 15.025196 |
| 8:  | 26   | 102     | 0.107432 | 18.121987 |
| 9:  | 18   | 67      | 0.104443 | 18.640549 |
| 10: | 4    | 16      | 0.092541 | 21.037991 |
| 11: | 27   | 106     | 0.080042 | 24.323319 |
| 12: | 3    | 13      | 0.130858 | 14.877883 |