## mod. B E_ik anti-optimal

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A72 | 46 | 10,80 | 8519 | 8410 | 8418 | 8472 | -109 | -101 | -47 | -1,27% | -1,18% | -0,55% |
| 1 | membench_rw_r_1M | A72 | 111 | 814,05 | 273 | 192 | 199 | 209 | -81 | -74 | -64 | -29,60% | -27,03% | -23,36% |
| 2 | tinyrenderer | A72 | 130 | 173,00 | 1503 | 1430 | 1424 | 1455 | -73 | -79 | -48 | -4,85% | -5,25% | -3,19% |
| 3 | sha | A72 | 99 | 0,17 | 1164706 | 1154676 | 1155898 | 1163267 | -10030 | -8808 | -1439 | -0,86% | -0,76% | -0,12% |
| 4 | wd_sort | A72 | 81 | 178,36 | 908 | 887 | 887 | 893 | -21 | -21 | -15 | -2,34% | -2,34% | -1,68% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3191 | 2710 | 3333 | 424 | -57 | 566 | 15,33% | -2,05% | 20,46% |
| 6 | wd_sort | A72 | 70 | 178,36 | 785 | 768 | 766 | 773 | -17 | -19 | -12 | -2,16% | -2,41% | -1,52% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4384876 | 4352858 | 4430004 | 113690 | 81672 | 158818 | 2,66% | 1,91% | 3,72% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1119985 | 1115255 | 1127570 | -22872 | -27602 | -15287 | -2,00% | -2,42% | -1,34% |
| 9 | test3 | A72 | 105 | 34,85 | 6025 | 6391 | 6231 | 5786 | 366 | 206 | -239 | 6,07% | 3,41% | -3,97% |
| 10 | membench_rw_r_1M | A72 | 130 | 814,05 | 319 | 165 | 170 | 173 | -154 | -149 | -146 | -48,34% | -46,77% | -45,83% |
| 11 | fft | A72 | 50 | 0,11 | 892857 | 862454 | 862039 | 871823 | -30403 | -30818 | -21034 | -3,41% | -3,45% | -2,36% |
| 12 | membench_rw_r_1M | A72 | 77 | 814,05 | 189 | 66 | 66 | 70 | -123 | -123 | -119 | -65,11% | -65,11% | -63,00% |
| 13 | dijkstra | A72 | 48 | 10,80 | 8889 | 8859 | 8849 | 8862 | -30 | -40 | -27 | -0,34% | -0,45% | -0,30% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1431952 | 1438628 | 1434506 | -15107 | -8431 | -12553 | -1,04% | -0,58% | -0,87% |
| 15 | fft | A72 | 66 | 0,11 | 1178571 | 1163989 | 1167579 | 1166735 | -14582 | -10992 | -11836 | -1,24% | -0,93% | -1,00% |
| 16 | membench_rw_r_1M | A72 | 59 | 814,05 | 145 | 111 | 116 | 127 | -34 | -29 | -18 | -23,42% | -19,97% | -12,39% |
| 17 | wd_fft | A72 | 74 | 0,06 | 2508475 | 2414307 | 2454450 | 2494320 | -94168 | -54025 | -14155 | -3,75% | -2,15% | -0,56% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14579 | 14585 | 14577 | 93 | 99 | 91 | 0,64% | 0,68% | 0,63% |
| 19 | sha | A72 | 62 | 0,17 | 729412 | 729011 | 727896 | 728369 | -401 | -1516 | -1043 | -0,05% | -0,21% | -0,14% |
| 20 | fft | A72 | 96 | 0,11 | 1714286 | 1635171 | 1698260 | 1700717 | -79115 | -16026 | -13569 | -4,62% | -0,93% | -0,79% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1482485 | 1479706 | 1475788 | 132 | -2647 | -6565 | 0,01% | -0,18% | -0,44% |

## no B anti-optimal + LTF

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A72 | 46 | 10,80 | 8519 | 8474 | 8485 | 8504 | -45 | -34 | -15 | -0,52% | -0,39% | -0,17% |
| 1 | membench_rw_r_1M | A72 | 111 | 814,05 | 273 | 195 | 195 | 212 | -78 | -78 | -61 | -28,50% | -28,50% | -22,26% |
| 2 | tinyrenderer | A72 | 130 | 173,00 | 1503 | 1438 | 1438 | 1455 | -65 | -65 | -48 | -4,32% | -4,32% | -3,19% |
| 3 | sha | A72 | 99 | 0,17 | 1164706 | 1160270 | 1157455 | 1165052 | -4436 | -7251 | 346 | -0,38% | -0,62% | 0,03% |
| 4 | wd_sort | A72 | 81 | 178,36 | 908 | 894 | 898 | 900 | -14 | -10 | -8 | -1,57% | -1,13% | -0,91% |
| 5 | test3 | A72 | 49 | 34,85 | 2812 | 2896 | 2599 | 3039 | 84 | -213 | 227 | 2,99% | -7,57% | 8,08% |
| 6 | wd_sort | A72 | 70 | 178,36 | 785 | 768 | 769 | 768 | -17 | -16 | -17 | -2,16% | -2,03% | -2,16% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4354970 | 4331336 | 4345178 | 83784 | 60150 | 73992 | 1,96% | 1,41% | 1,73% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1117306 | 1121275 | 1121089 | -25551 | -21582 | -21768 | -2,24% | -1,89% | -1,90% |
| 9 | test3 | A72 | 105 | 34,85 | 6025 | 5539 | 6231 | 6139 | -486 | 206 | 114 | -8,07% | 3,41% | 1,88% |
| 10 | membench_rw_r_1M | A72 | 130 | 814,05 | 319 | 153 | 161 | 172 | -166 | -158 | -147 | -52,10% | -49,59% | -46,15% |
| 11 | fft | A72 | 50 | 0,11 | 892857 | 878340 | 875121 | 879972 | -14517 | -17736 | -12885 | -1,63% | -1,99% | -1,44% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 52 | 51 | 42 | -136 | -137 | -146 | -72,41% | -72,94% | -77,72% |
| 13 | dijkstra | A72 | 48 | 10,80 | 8889 | 8835 | 8827 | 8846 | -54 | -62 | -43 | -0,61% | -0,70% | -0,48% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1414697 | 1417055 | 1434104 | -32362 | -30004 | -12955 | -2,24% | -2,07% | -0,90% |
| 15 | fft | A72 | 66 | 0,11 | 1178571 | 1159048 | 1156781 | 1159581 | -19523 | -21790 | -18990 | -1,66% | -1,85% | -1,61% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 17 | 17 | 17 | -128 | -128 | -128 | -88,28% | -88,28% | -88,28% |
| 17 | wd_fft | A72 | 74 | 0,06 | 2508475 | 2531181 | 2564657 | 2564463 | 22706 | 56182 | 55988 | 0,91% | 2,24% | 2,23% |
| 18 | dijkstra | A72 | 79 | 10,80 | 14630 | 14460 | 14486 | 14514 | -170 | -144 | -116 | -1,16% | -0,98% | -0,79% |
| 19 | sha | A72 | 62 | 0,17 | 729412 | 723953 | 726891 | 727839 | -5459 | -2521 | -1573 | -0,75% | -0,35% | -0,22% |
| 20 | fft | A72 | 96 | 0,11 | 1714286 | 1611541 | 1681583 | 1687895 | -102745 | -32703 | -26391 | -5,99% | -1,91% | -1,54% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1469253 | 1473751 | 1480037 | -13100 | -8602 | -2316 | -0,88% | -0,58% | -0,16% |

**no B anti-optimal**

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A72 | 46 | 10,80 | 8519 | 8402 | 8351 | 8498 | -117 | -168 | -21 | -1,37% | -1,97% | -0,24% |
| 1 | membench_rw_r_1M | A72 | 111 | 814,05 | 273 | 184 | 190 | 209 | -89 | -83 | -64 | -32,53% | -30,33% | -23,36% |
| 2 | tinyrenderer | A72 | 130 | 173,00 | 1503 | 1425 | 1433 | 1454 | -78 | -70 | -49 | -5,18% | -4,65% | -3,25% |
| 3 | sha | A72 | 99 | 0,17 | 1164706 | 1154769 | 1155583 | 1163314 | -9937 | -9123 | -1392 | -0,85% | -0,78% | -0,12% |
| 4 | wd_sort | A72 | 81 | 178,36 | 908 | 898 | 890 | 904 | -10 | -18 | -4 | -1,13% | -2,01% | -0,47% |
| 5 | test3 | A72 | 49 | 34,85 | 2812 | 3075 | 2673 | 2447 | 263 | -139 | -365 | 9,36% | -4,94% | -12,98% |
| 6 | wd_sort | A72 | 70 | 178,36 | 785 | 761 | 760 | 772 | -24 | -25 | -13 | -3,05% | -3,18% | -1,65% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4309828 | 4407933 | 4257518 | 38642 | 136747 | -13668 | 0,90% | 3,20% | -0,32% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1108604 | 1104212 | 1125570 | -34253 | -38645 | -17287 | -3,00% | -3,38% | -1,51% |
| 9 | test3 | A72 | 105 | 34,85 | 6025 | 6270 | 6362 | 6642 | 245 | 337 | 617 | 4,06% | 5,58% | 10,23% |
| 10 | membench_rw_r_1M | A72 | 130 | 814,05 | 319 | 169 | 170 | 177 | -150 | -149 | -142 | -47,09% | -46,77% | -44,58% |
| 11 | fft | A72 | 50 | 0,11 | 892857 | 883918 | 885644 | 888458 | -8939 | -7213 | -4399 | -1,00% | -0,81% | -0,49% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 154 | 161 | 145 | -34 | -27 | -43 | -18,30% | -14,58% | -23,07% |
| 13 | dijkstra | A72 | 48 | 10,80 | 8889 | 8848 | 8854 | 8875 | -41 | -35 | -14 | -0,46% | -0,39% | -0,16% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1434706 | 1435944 | 1434589 | -12353 | -11115 | -12470 | -0,85% | -0,77% | -0,86% |
| 15 | fft | A72 | 66 | 0,11 | 1178571 | 1155752 | 1169019 | 1167158 | -22819 | -9552 | -11413 | -1,94% | -0,81% | -0,97% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 103 | 117 | 94 | -42 | -28 | -51 | -28,96% | -19,31% | -35,17% |
| 17 | wd_fft | A72 | 74 | 0,06 | 2508475 | 2565833 | 2551654 | 2544904 | 57358 | 43179 | 36429 | 2,29% | 1,72% | 1,45% |
| 18 | dijkstra | A72 | 79 | 10,80 | 14630 | 14608 | 14566 | 14585 | -22 | -64 | -45 | -0,15% | -0,43% | -0,31% |
| 19 | sha | A72 | 62 | 0,17 | 729412 | 728183 | 729036 | 726999 | -1229 | -376 | -2413 | -0,17% | -0,05% | -0,33% |
| 20 | fft | A72 | 96 | 0,11 | 1714286 | 1698044 | 1703330 | 1696329 | -16242 | -10956 | -17957 | -0,95% | -0,64% | -1,05% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1468596 | 1479569 | 1483125 | -13757 | -2784 | 772 | -0,93% | -0,19% | 0,05% |

## mod. B E_ik optimal + LTF

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8430 | 8420 | 8363 | -11 | -21 | -78 | -0,13% | -0,25% | -0,92% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 51 | 52 | 50 | -222 | -221 | -223 | -81,32% | -80,96% | -81,69% |
| 2 | tinyrenderer | A53 | 225 | 333,00 | 1351 | 1364 | 1368 | 1353 | 13 | 17 | 2 | 0,94% | 1,23% | 0,12% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1159610 | 1158650 | 1156841 | 5425 | 4465 | 2656 | 0,47% | 0,39% | 0,23% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 871 | 880 | 876 | -28 | -19 | -23 | -3,17% | -2,17% | -2,61% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3312 | 3035 | 3311 | 545 | 268 | 544 | 19,71% | 9,69% | 19,67% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 767 | 755 | 761 | -16 | -28 | -22 | -1,99% | -3,52% | -2,75% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4301673 | 4262488 | 4217916 | 30487 | -8698 | -53270 | 0,71% | -0,20% | -1,25% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1085004 | 1080521 | 1092049 | -57853 | -62336 | -50808 | -5,06% | -5,45% | -4,45% |
| 9 | test3 | A53 | 216 | 72,29 | 5976 | 7262 | 7248 | 5594 | 1286 | 1272 | -382 | 21,51% | 21,28% | -6,40% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 89 | 93 | 82 | -230 | -226 | -237 | -72,10% | -70,84% | -74,29% |
| 11 | fft | A53 | 146 | 0,33 | 876877 | 878643 | 875963 | 877775 | 1766 | -914 | 898 | 0,20% | -0,10% | 0,10% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 48 | 49 | 47 | -140 | -139 | -141 | -74,53% | -74,00% | -75,07% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8763 | 8699 | 8745 | -20 | -84 | -38 | -0,23% | -0,96% | -0,43% |
| 14 | sha | A53 | 326 | 0,45 | 1436123 | 1443597 | 1441877 | 1442093 | 7474 | 5754 | 5970 | 0,52% | 0,40% | 0,42% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1175110 | 1174179 | 1167810 | 9945 | 9014 | 2645 | 0,85% | 0,77% | 0,23% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 18 | 18 | 18 | -127 | -127 | -127 | -87,59% | -87,59% | -87,59% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2284860 | 2307747 | 2286165 | -202535 | -179648 | -201230 | -8,14% | -7,22% | -8,09% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14502 | 14498 | 14411 | 16 | 12 | -75 | 0,11% | 0,08% | -0,52% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 721834 | 721906 | 718240 | 3772 | 3844 | 178 | 0,53% | 0,54% | 0,02% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1713921 | 1709331 | 1709731 | 14221 | 9631 | 10031 | 0,84% | 0,57% | 0,59% |
| 21 | sha | A53 | 334 | 0,45 | 1471366 | 1475686 | 1477371 | 1466153 | 4320 | 6005 | -5213 | 0,29% | 0,41% | -0,35% |

## mod. B predictor

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8372 | 8371 | 8309 | -69 | -70 | -132 | -0,81% | -0,83% | -1,56% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 31 | 31 | 30 | -242 | -242 | -243 | -88,65% | -88,65% | -89,01% |
| 2 | tinyrenderer | A72 | 130 | 173,00 | 1503 | 1525 | 1528 | 1528 | 22 | 25 | 25 | 1,47% | 1,67% | 1,67% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1157419 | 1157623 | 1149111 | 3234 | 3438 | -5074 | 0,28% | 0,30% | -0,44% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 875 | 874 | 874 | -24 | -25 | -25 | -2,72% | -2,83% | -2,83% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3295 | 2757 | 3320 | 528 | -10 | 553 | 19,09% | -0,35% | 19,99% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 753 | 760 | 742 | -30 | -23 | -41 | -3,78% | -2,88% | -5,18% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4361017 | 4362949 | 4359675 | 89831 | 91763 | 88489 | 2,10% | 2,15% | 2,07% |
| 8 | fft | A53 | 188 | 0,33 | 1129129 | 1132360 | 1131555 | 1129638 | 3231 | 2426 | 509 | 0,29% | 0,21% | 0,05% |
| 9 | test3 | A72 | 105 | 34,85 | 6025 | 6580 | 6387 | 4748 | 555 | 362 | -1277 | 9,20% | 6,00% | -21,20% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 73 | 74 | 70 | -246 | -245 | -249 | -77,11% | -76,80% | -78,06% |
| 11 | fft | A53 | 146 | 0,33 | 876877 | 883141 | 882518 | 883449 | 6264 | 5641 | 6572 | 0,71% | 0,64% | 0,75% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 52 | 51 | 43 | -136 | -137 | -145 | -72,41% | -72,94% | -77,19% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8771 | 8770 | 8713 | -12 | -13 | -70 | -0,14% | -0,15% | -0,80% |
| 14 | sha | A53 | 326 | 0,45 | 1436123 | 1442629 | 1443174 | 1441802 | 6506 | 7051 | 5679 | 0,45% | 0,49% | 0,40% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1172283 | 1175004 | 1174388 | 7118 | 9839 | 9223 | 0,61% | 0,84% | 0,79% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 18 | 18 | 18 | -127 | -127 | -127 | -87,59% | -87,59% | -87,59% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2335143 | 2326535 | 2332297 | -152252 | -160860 | -155098 | -6,12% | -6,47% | -6,24% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14517 | 14572 | 14434 | 31 | 86 | -52 | 0,21% | 0,59% | -0,36% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 721953 | 721642 | 721027 | 3891 | 3580 | 2965 | 0,54% | 0,50% | 0,41% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1713897 | 1714772 | 1708910 | 14197 | 15072 | 9210 | 0,84% | 0,89% | 0,54% |
| 21 | sha | A53 | 334 | 0,45 | 1471366 | 1478345 | 1478184 | 1474371 | 6979 | 6818 | 3005 | 0,47% | 0,46% | 0,20% |

**no B optimal + LTF**

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8442 | 8428 | 8419 | 1 | -13 | -22 | 0,01% | -0,15% | -0,26% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 54 | 53 | 50 | -219 | -220 | -223 | -80,22% | -80,59% | -81,69% |
| 2 | tinyrenderer | A53 | 225 | 333,00 | 1351 | 1369 | 1369 | 1355 | 18 | 18 | 4 | 1,31% | 1,31% | 0,27% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1158865 | 1158552 | 1156072 | 4680 | 4367 | 1887 | 0,41% | 0,38% | 0,16% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 881 | 884 | 876 | -18 | -15 | -23 | -2,05% | -1,72% | -2,61% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3320 | 2886 | 2600 | 553 | 119 | -167 | 19,99% | 4,31% | -6,03% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 766 | 767 | 751 | -17 | -16 | -32 | -2,11% | -1,99% | -4,03% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4275547 | 4294892 | 4339417 | 4361 | 23706 | 68231 | 0,10% | 0,56% | 1,60% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1095581 | 1134660 | 1099339 | -47276 | -8197 | -43518 | -4,14% | -0,72% | -3,81% |
| 9 | test3 | A53 | 216 | 72,29 | 5976 | 6323 | 7264 | 6595 | 347 | 1288 | 619 | 5,80% | 21,55% | 10,35% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 90 | 91 | 78 | -229 | -228 | -241 | -71,79% | -71,47% | -75,55% |
| 11 | fft | A53 | 146 | 0,33 | 876877 | 876711 | 876982 | 871883 | -166 | 105 | -4994 | -0,02% | 0,01% | -0,57% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 55 | 51 | 42 | -133 | -137 | -146 | -70,82% | -72,94% | -77,72% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8775 | 8770 | 8754 | -8 | -13 | -29 | -0,09% | -0,15% | -0,33% |
| 14 | sha | A53 | 326 | 0,45 | 1436123 | 1442887 | 1443678 | 1442288 | 6764 | 7555 | 6165 | 0,47% | 0,53% | 0,43% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1171089 | 1175694 | 1172862 | 5924 | 10529 | 7697 | 0,51% | 0,90% | 0,66% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 18 | 18 | 18 | -127 | -127 | -127 | -87,59% | -87,59% | -87,59% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2301241 | 2311893 | 2268453 | -186154 | -175502 | -218942 | -7,48% | -7,06% | -8,80% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14503 | 14480 | 14397 | 17 | -6 | -89 | 0,12% | -0,04% | -0,62% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 720837 | 720663 | 714970 | 2775 | 2601 | -3092 | 0,39% | 0,36% | -0,43% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1714213 | 1714714 | 1712384 | 14513 | 15014 | 12684 | 0,85% | 0,88% | 0,75% |
| 21 | sha | A53 | 334 | 0,45 | 1471366 | 1476726 | 1478593 | 1466289 | 5360 | 7227 | -5077 | 0,36% | 0,49% | -0,35% |

**no B optimal**

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8429 | 8436 | 8311 | -12 | -5 | -130 | -0,14% | -0,06% | -1,54% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 54 | 55 | 51 | -219 | -218 | -222 | -80,22% | -79,86% | -81,32% |
| 2 | tinyrenderer | A53 | 225 | 333,00 | 1351 | 1370 | 1372 | 1348 | 19 | 21 | -3 | 1,38% | 1,53% | -0,25% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1158614 | 1160017 | 1149059 | 4429 | 5832 | -5126 | 0,38% | 0,51% | -0,44% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 881 | 880 | 878 | -18 | -19 | -21 | -2,05% | -2,17% | -2,39% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3320 | 3304 | 3272 | 553 | 537 | 505 | 19,99% | 19,42% | 18,26% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 765 | 764 | 761 | -18 | -19 | -22 | -2,24% | -2,37% | -2,75% |
| 7 | wd_fft | A72 | 126 | 0,06 | 4271186 | 4204537 | 4418591 | 4323992 | -66649 | 147405 | 52806 | -1,56% | 3,45% | 1,24% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1119778 | 1125388 | 1123845 | -23079 | -17469 | -19012 | -2,02% | -1,53% | -1,66% |
| 9 | test3 | A53 | 216 | 72,29 | 5976 | 6918 | 6918 | 7255 | 942 | 942 | 1279 | 15,76% | 15,76% | 21,40% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 87 | 92 | 83 | -232 | -227 | -236 | -72,73% | -71,16% | -73,98% |
| 11 | fft | A53 | 146 | 0,33 | 876877 | 872649 | 877580 | 879452 | -4228 | 703 | 2575 | -0,48% | 0,08% | 0,29% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 55 | 56 | 51 | -133 | -132 | -137 | -70,82% | -70,29% | -72,94% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8777 | 8781 | 8770 | -6 | -2 | -13 | -0,07% | -0,02% | -0,15% |
| 14 | sha | A53 | 326 | 0,45 | 1436123 | 1442612 | 1443087 | 1441789 | 6489 | 6964 | 5666 | 0,45% | 0,48% | 0,39% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1174812 | 1175821 | 1172579 | 9647 | 10656 | 7414 | 0,83% | 0,91% | 0,64% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 18 | 18 | 18 | -127 | -127 | -127 | -87,59% | -87,59% | -87,59% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2308489 | 2312434 | 2297731 | -178906 | -174961 | -189664 | -7,19% | -7,03% | -7,63% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14468 | 14508 | 14415 | -18 | 22 | -71 | -0,13% | 0,15% | -0,49% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 720797 | 721284 | 720659 | 2735 | 3222 | 2597 | 0,38% | 0,45% | 0,36% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1711288 | 1709671 | 1713203 | 11588 | 9971 | 13503 | 0,68% | 0,59% | 0,79% |
| 21 | sha | A53 | 334 | 0,45 | 1471366 | 1477597 | 1477561 | 1476251 | 6231 | 6195 | 4885 | 0,42% | 0,42% | 0,33% |

**Random 1**

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A72 | 46 | 10,80 | 8519 | 8461 | 8472 | 8476 | -58 | -47 | -43 | -0,68% | -0,55% | -0,50% |
| 1 | membench_rw_r_1M | A72 | 111 | 814,05 | 273 | 182 | 236 | 221 | -91 | -37 | -52 | -33,26% | -13,46% | -18,96% |
| 2 | tinyrenderer | A72 | 130 | 173,00 | 1503 | 1468 | 1487 | 1483 | -35 | -16 | -20 | -2,32% | -1,06% | -1,32% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1159432 | 1160102 | 1156041 | 5247 | 5917 | 1856 | 0,45% | 0,51% | 0,16% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 887 | 905 | 883 | -12 | 6 | -16 | -1,39% | 0,61% | -1,83% |
| 5 | test3 | A53 | 100 | 72,29 | 2767 | 3114 | 3142 | 3252 | 347 | 375 | 485 | 12,55% | 13,56% | 17,54% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 775 | 780 | 779 | -8 | -3 | -4 | -0,96% | -0,33% | -0,45% |
| 7 | wd_fft | A53 | 253 | 0,12 | 4252101 | 3999818 | 4012415 | 3969517 | -252283 | -239686 | -282584 | -5,93% | -5,64% | -6,65% |
| 8 | fft | A53 | 188 | 0,33 | 1129129 | 1132298 | 1133758 | 1116003 | 3169 | 4629 | -13126 | 0,28% | 0,41% | -1,16% |
| 9 | test3 | A72 | 105 | 34,85 | 6025 | 5181 | 6351 | 6205 | -844 | 326 | 180 | -14,02% | 5,40% | 2,98% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 238 | 261 | 211 | -81 | -58 | -108 | -25,39% | -18,18% | -33,85% |
| 11 | fft | A53 | 146 | 0,33 | 876877 | 881411 | 881750 | 876607 | 4534 | 4873 | -270 | 0,52% | 0,56% | -0,03% |
| 12 | membench_rw_r_1M | A72 | 77 | 814,05 | 189 | 93 | 102 | 102 | -96 | -87 | -87 | -50,84% | -46,08% | -46,08% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8828 | 8839 | 8831 | 45 | 56 | 48 | 0,51% | 0,64% | 0,55% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1436283 | 1447771 | 1445175 | -10776 | 712 | -1884 | -0,74% | 0,05% | -0,13% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1172257 | 1171513 | 1167178 | 7092 | 6348 | 2013 | 0,61% | 0,54% | 0,17% |
| 16 | membench_rw_r_1M | A72 | 59 | 814,05 | 145 | 95 | 117 | 92 | -50 | -28 | -53 | -34,46% | -19,29% | -36,53% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2326577 | 2332702 | 2306943 | -160818 | -154693 | -180452 | -6,47% | -6,22% | -7,25% |
| 18 | dijkstra | A53 | 127 | 17,53 | 14486 | 14564 | 14579 | 14455 | 78 | 93 | -31 | 0,54% | 0,64% | -0,21% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 708415 | 707996 | 703787 | -9647 | -10066 | -14275 | -1,34% | -1,40% | -1,99% |
| 20 | fft | A72 | 96 | 0,11 | 1714286 | 1676172 | 1699877 | 1687552 | -38114 | -14409 | -26734 | -2,22% | -0,84% | -1,56% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1462251 | 1479313 | 1466588 | -20102 | -3040 | -15765 | -1,36% | -0,21% | -1,06% |

## Random 2

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8434 | 8429 | 8398 | -7 | -12 | -43 | -0,08% | -0,14% | -0,51% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 222 | 202 | 200 | -51 | -71 | -73 | -18,70% | -26,03% | -26,76% |
| 2 | tinyrenderer | A53 | 225 | 333,00 | 1351 | 1364 | 1354 | 1352 | 13 | 3 | 1 | 0,94% | 0,20% | 0,05% |
| 3 | sha | A53 | 262 | 0,45 | 1154185 | 1159798 | 1158224 | 1157931 | 5613 | 4039 | 3746 | 0,49% | 0,35% | 0,32% |
| 4 | wd_sort | A53 | 100 | 222,35 | 899 | 871 | 866 | 878 | -28 | -33 | -21 | -3,17% | -3,72% | -2,39% |
| 5 | test3 | A72 | 49 | 34,85 | 2812 | 2737 | 2888 | 2171 | -75 | 76 | -641 | -2,66% | 2,71% | -22,79% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 753 | 759 | 758 | -30 | -24 | -25 | -3,78% | -3,01% | -3,14% |
| 7 | wd_fft | A53 | 253 | 0,12 | 4252101 | 3990651 | 3980097 | 3975965 | -261450 | -272004 | -276136 | -6,15% | -6,40% | -6,49% |
| 8 | fft | A72 | 64 | 0,11 | 1142857 | 1105878 | 1122561 | 1121104 | -36979 | -20296 | -21753 | -3,24% | -1,78% | -1,90% |
| 9 | test3 | A53 | 216 | 72,29 | 5976 | 7250 | 6817 | 6801 | 1274 | 841 | 825 | 21,31% | 14,07% | 13,80% |
| 10 | membench_rw_r_1M | A72 | 130 | 814,05 | 319 | 199 | 231 | 284 | -120 | -88 | -35 | -37,69% | -27,67% | -11,08% |
| 11 | fft | A72 | 50 | 0,11 | 892857 | 860529 | 870812 | 870177 | -32328 | -22045 | -22680 | -3,62% | -2,47% | -2,54% |
| 12 | membench_rw_r_1M | A53 | 78 | 827,63 | 188 | 21 | 21 | 21 | -167 | -167 | -167 | -88,86% | -88,86% | -88,86% |
| 13 | dijkstra | A72 | 48 | 10,80 | 8889 | 8687 | 8686 | 8541 | -202 | -203 | -348 | -2,27% | -2,28% | -3,91% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1437603 | 1443269 | 1446208 | -9456 | -3790 | -851 | -0,65% | -0,26% | -0,06% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1169703 | 1156674 | 1152741 | 4538 | -8491 | -12424 | 0,39% | -0,73% | -1,07% |
| 16 | membench_rw_r_1M | A53 | 60 | 827,63 | 145 | 16 | 15 | 15 | -129 | -130 | -130 | -88,96% | -89,65% | -89,65% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2342897 | 2312967 | 2304410 | -144498 | -174428 | -182985 | -5,81% | -7,01% | -7,36% |
| 18 | dijkstra | A72 | 79 | 10,80 | 14630 | 14338 | 14490 | 14484 | -292 | -140 | -146 | -1,99% | -0,95% | -1,00% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 716020 | 712004 | 709584 | -2042 | -6058 | -8478 | -0,28% | -0,84% | -1,18% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1709422 | 1707519 | 1713041 | 9722 | 7819 | 13341 | 0,57% | 0,46% | 0,78% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1439791 | 1461377 | 1466725 | -42562 | -20976 | -15628 | -2,87% | -1,42% | -1,05% |

**Random 3**

| MF [s] | t [s] |
|---|---|
| 0,9 | 1800 |

| Task | Benchmark | Proc | p_ik [ms] | Iter. time [ms] | Expected iter. | Actual iter. | | | Iter. diff | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 | Run 1 | Run 2 | Run 3 |
| 0 | dijkstra | A53 | 74 | 17,53 | 8441 | 8458 | 8459 | 8435 | 17 | 18 | -6 | 0,20% | 0,22% | -0,07% |
| 1 | membench_rw_r_1M | A53 | 113 | 827,63 | 273 | 35 | 34 | 34 | -238 | -239 | -239 | -87,18% | -87,55% | -87,55% |
| 2 | tinyrenderer | A53 | 225 | 333,00 | 1351 | 1356 | 1343 | 1345 | 5 | -8 | -6 | 0,34% | -0,62% | -0,47% |
| 3 | sha | A72 | 99 | 0,17 | 1164706 | 1149807 | 1157461 | 1158988 | -14899 | -7245 | -5718 | -1,28% | -0,62% | -0,49% |
| 4 | wd_sort | A72 | 81 | 178,36 | 908 | 888 | 901 | 892 | -20 | -7 | -16 | -2,23% | -0,80% | -1,79% |
| 5 | test3 | A72 | 49 | 34,85 | 2812 | 2808 | 2876 | 2436 | -4 | 64 | -376 | -0,14% | 2,28% | -13,37% |
| 6 | wd_sort | A53 | 87 | 222,35 | 783 | 775 | 778 | 780 | -8 | -5 | -3 | -0,96% | -0,58% | -0,33% |
| 7 | wd_fft | A53 | 253 | 0,12 | 4252101 | 3985872 | 3961148 | 3993686 | -266229 | -290953 | -258415 | -6,26% | -6,84% | -6,08% |
| 8 | fft | A53 | 188 | 0,33 | 1129129 | 1135813 | 1135795 | 1134063 | 6684 | 6666 | 4934 | 0,59% | 0,59% | 0,44% |
| 9 | test3 | A53 | 216 | 72,29 | 5976 | 7242 | 6879 | 7196 | 1266 | 903 | 1220 | 21,18% | 15,11% | 20,41% |
| 10 | membench_rw_r_1M | A53 | 132 | 827,63 | 319 | 66 | 62 | 64 | -253 | -257 | -255 | -79,31% | -80,56% | -79,94% |
| 11 | fft | A72 | 50 | 0,11 | 892857 | 870840 | 875058 | 876137 | -22017 | -17799 | -16720 | -2,47% | -1,99% | -1,87% |
| 12 | membench_rw_r_1M | A72 | 77 | 814,05 | 189 | 61 | 60 | 63 | -128 | -129 | -126 | -67,76% | -68,28% | -66,70% |
| 13 | dijkstra | A53 | 77 | 17,53 | 8783 | 8733 | 8672 | 8623 | -50 | -111 | -160 | -0,57% | -1,26% | -1,82% |
| 14 | sha | A72 | 123 | 0,17 | 1447059 | 1426682 | 1440497 | 1443550 | -20377 | -6562 | -3509 | -1,41% | -0,45% | -0,24% |
| 15 | fft | A53 | 194 | 0,33 | 1165165 | 1171756 | 1171238 | 1167291 | 6591 | 6073 | 2126 | 0,57% | 0,52% | 0,18% |
| 16 | membench_rw_r_1M | A72 | 59 | 814,05 | 145 | 25 | 26 | 26 | -120 | -119 | -119 | -82,75% | -82,06% | -82,06% |
| 17 | wd_fft | A53 | 148 | 0,12 | 2487395 | 2304793 | 2288873 | 2281707 | -182602 | -198522 | -205688 | -7,34% | -7,98% | -8,27% |
| 18 | dijkstra | A72 | 79 | 10,80 | 14630 | 14484 | 14565 | 14320 | -146 | -65 | -310 | -1,00% | -0,44% | -2,12% |
| 19 | sha | A53 | 163 | 0,45 | 718062 | 717383 | 708728 | 708275 | -679 | -9334 | -9787 | -0,09% | -1,30% | -1,36% |
| 20 | fft | A53 | 283 | 0,33 | 1699700 | 1711909 | 1712976 | 1711001 | 12209 | 13276 | 11301 | 0,72% | 0,78% | 0,66% |
| 21 | sha | A72 | 126 | 0,17 | 1482353 | 1464124 | 1473560 | 1477936 | -18229 | -8793 | -4417 | -1,23% | -0,59% | -0,30% |