Teste ppd

1. java

1.1 N=M=10, n=m=3, p=4

Secvential: 2 0 0 0 0 0 0 5 0 0 -> 0.7

paralelLinii: 7 3 4 3 2 4 2 4 3 7 -> 3.9

paralelColoane: 1 1 1 1 1 2 1 1 1 1 -> 1.1

1.2.1 N=M=1000, n=m=5, p=1

Secvential: 46 47 34 42 36 41 39 34 47 56 -> 42.2

paralelLinii: 32 31 35 32 40 43 40 29 48 44 -> 37.4

paralelColoane: 40 47 31 47 33 33 25 48 31 28 -> 36.3

1.2.2 N=M=1000, n=m=5, p=2

Secvential: 41 46 42 31 32 41 26 37 42 48 -> 38.6

paralelLinii: 19 22 22 24 20 23 24 28 17 17 -> 21.6

paralelColoane: 17 30 17 25 25 17 16 19 24 32 -> 22.2

1.2.3 N=M=1000, n=m=5, p=4

Secvential: 43 41 35 39 37 47 43 42 32 33 -> 39.2

paralelLinii: 7 22 10 24 16 15 2 2 27 14 -> 13.9

paralelColoane: 19 8 17 16 16 18 18 16 3 7 -> 13.8

1.2.4 N=M=1000, n=m=5, p=8

Secvential: 43 38 47 47 36 44 37 32 43 47 -> 41.4

paralelLinii: 17 26 17 19 15 16 11 16 21 17 -> 17.5

paralelColoane: 6 16 18 20 23 19 20 16 17 18 -> 17.3

1.2.5 N=M=1000, n=m=5, p=16

Secvential: 43 50 47 42 44 48 28 42 36 51 -> 43.1

paralelLinii: 11 16 16 18 15 21 11 18 15 16 -> 15.7

paralelColoane: 32 20 16 21 16 19 18 10 15 25 -> 19.2

1.3.1 N=10, M=10000, n=m=5, p=1

Secvential: 12 9 12 6 10 2 26 11 3 9 -> 10

paralelLinii: 7 0 0 0 7 8 6 8 7 19 ->6.2

paralelColoane: 2 11 16 11 6 8 6 5 7 6 -> 7.8

1.3.2 N=10, M=10000, n=m=5, p=2

Secvential: 10 2 8 16 10 13 10 0 9 8 -> 8.6

paralelLinii: 16 6 5 0 7 4 8 14 0 2 -> 6.2

paralelColoane: 4 1 3 2 4 8 5 5 0 4 -> 3.6

1.3.3 N=10, M=10000, n=m=5, p=4

Secvential: 11 6 14 15 7 5 6 14 13 9 -> 10

paralelLinii: 2 8 3 6 3 5 4 4 13 14 -> 6.2

paralelColoane: 3 3 3 3 2 3 5 3 2 2 -> 2.9

1.3.4 N=10, M=10000, n=m=5, p=8

Secvential: 9 3 3 15 1 14 11 15 16 16 -> 10.3

paralelLinii: 14 2 4 4 7 4 3 8 2 11 -> 5.9

paralelColoane: 2 2 4 5 2 4 2 3 5 3 -> 3.2

1.3.5 N=10, M=10000, n=m=5, p=16

Secvential: 10 4 1 9 6 16 15 9 12 10 -> 9.2

paralelLinii: 3 2 10 2 5 9 3 3 7 7 -> 5.1

paralelColoane: 3 2 2 3 3 2 5 5 3 2 -> 3

1.4.1 N=10000, M=10, n=m=5, p=1

Secvential: 19 7 13 12 8 3 13 7 3 11 -> 9.6

paralelLinii: 7 6 11 10 6 6 6 2 9 8 -> 7.1

paralelColoane: 5 7 6 6 7 1 6 9 3 6 -> 5.6

1.4.2 N=10000, M=10, n=m=5, p=2

Secvential: 13 9 6 11 10 11 11 6 14 9 -> 10

paralelLinii: 5 8 6 6 5 6 1 8 5 3 -> 5.3

paralelColoane: 1 9 1 5 2 5 6 4 5 6 -> 4.4

1.4.3 N=10000, M=10, n=m=5, p=4

Secvential: 6 11 11 7 15 9 13 14 12 1 -> 9.9

paralelLinii: 3 1 3 3 3 3 2 2 1 1 -> 2.2

paralelColoane: 6 4 4 5 5 6 6 2 4 1 -> 4.3

1.4.4 N=10000, M=10, n=m=5, p=8

Secvential: 12 14 16 23 15 14 16 18 14 11 -> 15.3

paralelLinii: 3 4 7 6 3 3 17 7 5 6 -> 6.1

paralelColoane: 2 4 2 4 4 2 4 4 4 3 -> 3.3

1.4.5 N=10000, M=10, n=m=5, p=16

Secvential: 4 18 17 7 16 6 5 2 12 2 -> 8.9

paralelLinii: 5 3 5 6 6 3 3 3 2 7 -> 4.3

paralelColoane: 4 4 2 4 2 3 3 2 3 2 -> 2.9

2. C++ static

2.1 N=M=10, n=m=3, p=4

Secvential: 0.043 0.037 0.0363 0.0336 0.0354 0.0399 0.0364 0.0443 0.0364 0.037 -> 0.03457

paralelLinii: 5.1842 4.1306 4.2773 4.5682 4.5944 4.5144 3.9408 4.3612 4.4831 4.9588 -> 4.5013

paralelColoane: 1.7181 1.6371 1.4553 1.9392 1.9205 1.7105 1.6039 1.8127 1.758 1.8364 -> 1.73917

2.2.1 N=M=1000, n=m=5, p=1

Secvential: 419.759 411.137 440.671 408.601 415.359 422.278 442.93 407.422 413.177 412.459 -> 419.3793

paralelLinii: 418.96 423.326 456.178 416.625 413.579 414.798 420.873 423.757 424.354 431.861 -> 424.4311

paralelColoane: 419.348 418.096 422.159 418.988 426.266 427.358 431.32 421.918 441.89 429.807 -> 425.715

2.2.2 N=M=1000, n=m=5, p=2

Secvential: 425.315 415.454 418.233 414.235 473.788 406.576 406.694 414.447 415.509 410.802 -> 417.9053

paralelLinii: 217.143 218.887 224.838 219.101 232.137 217.075 218.687 217.678 218.633 218.617 -> 220.6964

paralelColoane: 223.337 225.196 216.578 220.148 246.23 227.839 232.03 212.439 215.426 213.697 -> 221.973

2.2.3 N=M=1000, n=m=5, p=4

Secvential: 430.609 407.558 414.641 410.147 411.348 410.108 419.138 411.06 419.09 409.179 -> 415.3878

paralelLinii: 127.541 111.789 112.561 114.687 133.882 113.282 121.095 113.487 125.6 115.131 -> 119.4256

paralelColoane: 118.828 114.69 132.258 111.847 114.012 122.667 126.81 111.004 113.325 112.101 -> 118.7622

2.2.4 N=M=1000, n=m=5, p=8

Secvential: 433.693 418.189 417.095 417.112 418.453 419.085 411.253 418.611 414.95 407.574 -> 416.2024

paralelLinii: 90.0556 86.5052 79.6374 78.7503 80.038 75.4494 76.9833 73.3726 81.5098 84.3516 -> 80.0649

paralelColoane: 79.5984 88.4951 77.1425 81.907 78.3054 82.9059 87.0692 77.8221 81.8769 84.8344 -> 82.3959

2.2.5 N=M=1000, n=m=5, p=16

Secvential: 419.652 419.869 416.18 421.138 407.889 408.769 417.779 428.602 416.998 411.271 -> 416.2348

paralelLinii: 71.2237 72.1008 69.2412 71.7046 66.9715 66.0196 69.2555 67.4556 69.1393 66.2737 -> 68.5173

paralelColoane: 66.6513 66.8907 70.5476 69.9958 68.61 66.4356 67.5969 68.279 67.1652 67.3857 -> 67.5933

2.3.1 N=10, M=10000, n=m=5, p=1

Secvential: 43.6488 43.6839 43.6839 42.0256 49.2064 42.4036 42.5015 48.911 42.7463 48.8627 -> 45.1166

paralelLinii: 56.4794 58.6003 58.6003 48.2946 50.3444 47.188 55.4035 51.8907 47.8581 53.7715 -> 53.4733

paralelColoane: 75.8672 49.1706 49.1706 49.4197 62.6943 45.6527 44.628 57.9936 50.6773 52.3671 -> 54.8979

2.3.2 N=10, M=10000, n=m=5, p=2

Secvential: 46.4604 44.1275 43.7419 47.0885 47.5312 47.3333 44.5594 42.8055 47.5453 44.1103 -> 45.2163

paralelLinii: 40.2499 38.9777 39.0066 32.6449 28.9763 35.5016 32.6207 32.9884 32.3975 32.794 -> 34.6156

paralelColoane: 42.2012 29.5948 24.0432 36.9522 36.4485 27.8921 28.8724 31.7781 36.4506 33.2916 -> 33.8527

2.3.3 N=10, M=10000, n=m=5, p=4

Secvential: 47.4822 42.0249 41.9483 48.8744 51.3379 42.7472 42.2707 45.4175 43.5695 42.7469 -> 44.8354

paralelLinii: 27.0486 25.1697 22.4566 21.724 20.8911 26.9196 28.7755 32.1033 22.506 31.1249 -> 25.9739

paralelColoane: 21.4052 15.883 21.4009 21.7581 18.6994 26.4164 15.4029 19.3383 17.9159 13.4253 -> 18.7144

2.3.4 N=10, M=10000, n=m=5, p=8

Secvential: 48.0711 42.3531 43.0274 45.4046 42.3645 42.5541 47.7896 49.0842 44.1582 43.7161 -> 44.6429

paralelLinii: 17.9467 25.5464 24.9338 19.1031 21.6552 22.4155 18.5216 23.5555 28.6766 25.5492 -> 22.4906

paralelColoane: 20.2326 16.0506 12.8499 16.4172 19.3088 14.2796 17.4186 17.0467 17.1916 13.2227 -> 16.9921

2.3.5 N=10, M=10000, n=m=5, p=16

Secvential: 44.0586 42.2654 41.939 43.8911 46.3281 42.7218 46.0225 48.373 42.9639 42.328 -> 44.0614

paralelLinii: 23.2768 17.9978 23.0835 27.1261 30.5766 20.8608 31.208 33.0617 35.3195 29.9531 -> 27.9455

paralelColoane: 23.4322 27.4269 19.7407 21.0153 22.6936 22.3292 18.5825 23.5238 21.9231 19.5298 -> 22.9614

2.4.1 N=10000, M=10, n=m=5, p=1

Secvential: 81.0229 61.7764 54.0612 58.8027 56.4224 54.5215 55.3254 64.5036 56.7966 56.168 -> 60.6185

paralelLinii: 84.0916 63.1098 117.868 65.3476 63.1801 61.4127 68.0038 68.2866 70.1397 63.9279 -> 73.9368

paralelColoane: 81.6867 127.325 138.781 64.8725 80.182 61.4334 63.4302 64.0773 61.1436 56.806 -> 79.0752

2.4.2 N=10000, M=10, n=m=5, p=2

Secvential: 63.7438 55.4375 55.244 59.9529 54.9148 59.3526 54.1639 65.427 58.4993 57.769 -> 58.1547

paralelLinii: 33.2968 36.7755 77.0795 35.8036 36.6444 42.3844 34.4832 41.2361 41.0972 50.3242 -> 43.3929

paralelColoane: 49.512 39.2554 48.5204 38.9971 47.6108 42.7876 39.1864 45.1985 47.2694 41.7078 - > 44.8044

2.4.3 N=10000, M=10, n=m=5, p=4

Secvential: 56.789 55.1173 61.2833 54.9569 60.1371 59.0553 62.3697 56.4077 54.6035 56.7832 -> 57.1955

paralelLinii: 30.2023 25.2931 24.3748 21.4887 24.132 26.8613 23.2644 24.6061 50.362 31.6127 -> 28.8184

paralelColoane: 36.2531 29.721 31.1425 29.5711 30.7373 26.9069 31.0021 29.6249 25.9756 73.4285 -> 32.0464

2.4.4 N=10000, M=10, n=m=5, p=8

Secvential: 63.4073 56.8679 54.4473 56.6916 55.0276 59.7744 57.2271 56.0573 54.6293 59.5597 -> 59.11404

paralelLinii: 20.5125 28.4366 38.8493 21.8085 23.0344 25.6035 27.9598 19.5964 19.0632 24.1936 -> 24.80468

paralelColoane: 68.1045 34.1303 92.5489 27.5402 22.9138 27.3018 28.3987 26.6615 44.3689 29.8984 -> 36.1256

2.4.5 N=10000, M=10, n=m=5, p=16

Secvential: 64.0846 58.7925 55.3342 54.6685 54.6515 53.7126 60.1353 59.0476 55.2536 56.6589 ->59.14193

paralelLinii: 27.0169 25.7113 35.846 25.839 23.8112 21.7525 38.0192 22.463 25.582 34.3682 -> 27.04393

paralelColoane: 46.3277 38.6921 46.7398 37.6216 37.8434 38.3508 39.291 33.174 33.5425 32.8435 -> 39.44264

3. C++ dinamic

3.1 N=M=10, n=m=3, p=4

Secvential: 0.023 0.0332 0.0232 0.0253 0.033 0.033 0.021 0.0508 0.0336 0.0258 -> 0.02809

paralelLinii: 4.528 4.1371 4.4032 4.3615 5.0129 3.7139 4.1697 4.2058 3.87 3.8336 -> 4.22257

paralelColoane: 1.9466 1.5677 2.2699 2.4403 2.5794 1.5473 1.5846 2.118 1.9906 1.727 -> 2.03814

3.2.1 N=M=1000, n=m=5, p=1

Secvential: 423.623 416.257 419.853 418.202 420.564 430.744 420.584 417.095 415.136 420.344 -> 423.7502

paralelLinii: 436.683 429.106 438.445 433.288 427.728 421.209 423.785 423.952 429.452 426.777 -> 431.6525

paralelColoane: 424.015 428.358 430.966 427.328 430.533 434.413 428.433 426.916 428.272 446.701 -> 432.1045

3.2.2 N=M=1000, n=m=5, p=2

Secvential: 416.63 456.276 426.56 491.383 418.4 413.579 425.241 416.472 429.334 423.247 -> 430.8532

paralelLinii: 220.828 218.165 217.303 230.228 221.386 220.85 218.921 217.049 237.117 219.938 ->222.1824

paralelColoane: 216.348 237.818 219.223 225.463 217.496 222.65 230.761 215.727 219.656 222.871 -> 220.8415

3.2.3 N=M=1000, n=m=5, p=4

Secvential: 422.102 431.477 426.803 423.511 412.566 421.308 414.223 459.919 412.005 422.693 -> 428.6607

paralelLinii: 115.769 116.442 117.099 116.529 128.625 116.688 116.27 114.41 113.596 114.417 -> 115.9345

paralelColoane: 120.273 111.93 113.49 112.633 113.772 132.535 113.722 115.204 114.548 114.743 -> 113.285

3.2.4 N=M=1000, n=m=5, p=8

Secvential: 423.566 415.705 416.556 417.971 418.885 419.052 423.122 414.185 413.441 460.683 -> 428.3066

paralelLinii: 77.9237 68.3109 91.2186 77.0286 90.2136 89.8797 101.145 87.0763 91.3644 84.146 -> 86.73688

paralelColoane: 88.1655 86.4252 81.821 79.2388 85.0097 75.1775 78.7475 73.9815 84.9557 82.6184 -> 80.51278

3.2.5 N=M=1000, n=m=5, p=16

Secvential: 412.97 420.407 414.215 423.198 414.426 417.919 414.604 413.777 417.098 431.332 -> 419.8946

paralelLinii: 71.6564 68.4876 71.5087 70.9353 71.8556 68.23 66.946 66.9129 70.8068 64.9358 -> 69.72681

paralelColoane: 68.5675 80.0104 64.2007 66.6454 68.9068 67.2944 70.6995 67.7445 83.2019 69.9897 -> 70.79503

3.3.1 N=10, M=10000, n=m=5, p=1

Secvential: 53.3614 44.5946 42.0969 47.9228 42.5981 44.8197 43.8467 43.7821 43.0269 45.7306 -> 46.089

paralelLinii: 60.2228 48.722 47.5502 51.759 48.7432 56.2046 59.3595 58.4186 59.1465 56.6246 -> 54.63874

paralelColoane: 54.4328 65.0916 55.0315 54.2714 49.1856 68.2237 47.4054 49.6599 52.4696 59.8334 -> 53.50139

3.3.2 N=10, M=10000, n=m=5, p=2

Secvential: 90.1632 92.4296 80.3717 80.6467 77.6531 105.082 89.9701 95.7866 92.3673 87.632 -> 89.25213

paralelLinii: 45.9899 63.2741 50.8682 81.6171 58.7586 68.9788 58.3613 63.9534 68.4349 64.6319 -> 59.40702

paralelColoane: 60.1449 58.1163 56.4925 63.9982 48.4736 53.18 60.5093 51.3526 71.6005 54.864 -> 57.71329

3.3.3 N=10, M=10000, n=m=5, p=4

Secvential: 108.508 109.121 75.5738 79.9806 103.466 77.7618 95.4406 92.8479 79.8146 75.7068 -> 89.81711

paralelLinii: 35.3498 42.3276 48.5721 46.3784 55.0301 49.4198 45.7751 43.5156 39.6461 44.1283 -> 45.55238

paralelColoane: 29.1984 33.2407 35.3356 35.6948 28.3947 38.4824 28.4249 37.8699 30.9144 38.0997 -> 33.56648

3.3.4 N=10, M=10000, n=m=5, p=8

Secvential: 87.2269 101.303 71.0293 102.703 77.6708 91.5565 99.1024 74.4892 87.3815 82.3799 -> 87.48326

paralelLinii: 31.3202 45.4399 34.311 38.8473 45.2281 47.5527 34.4034 43.5904 38.5733 38.469 -> 39.67353

paralelColoane: 26.5111 23.5262 22.4057 23.911 22.9452 24.3426 25.1486 23.9627 30.0628 27.3013 -> 26.01162

3.3.5 N=10, M=10000, n=m=5, p=16

Secvential: 73.0883 83.2571 94.817 130.357 84.1088 76.2337 78.9763 70.1727 99.0796 88.6799 -> 88.89814

paralelLinii: 37.6432 41.2494 48.0852 59.3141 44.5058 53.1505 53.9413 38.364 61.3651 41.2848 ->47.82534

paralelColoane: 27.9649 28.7259 34.6205 33.5097 49.7525 35.2393 30.8377 40.294 31.3048 31.8798 -> 36.31281

3.4.1 N=10000, M=10, n=m=5, p=1

Secvential: 103.393 108.061 100.994 80.7282 92.1156 124.002 74.0473 113.818 172.535 118.724 -> 108.86181

paralelLinii: 79.4442 118.987 130.186 108.301 90.5316 96.0773 111.303 101.198 122.09 91.3803 -> 104.94714

paralelColoane: 82.2264 100.116 80.6578 102.716 94.7135 95.1944 92.8366 86.8548 88.0855 80.9842 -> 90.41952

3.4.2 N=10000, M=10, n=m=5, p=2

Secvential: 85.6027 112.898 120.396 107.862 99.0623 121.738 103.094 81.9791 124.621 178.505 -> 103.57981

paralelLinii: 66.762 70.6447 66.1045 73.5398 53.0214 64.0744 73.5132 86.0676 60.0208 109.55 ->70.49784

paralelColoane: 58.1435 43.5991 47.075 59.9466 59.6345 46.4222 51.2836 57.9011 60.5737 50.2278 ->53.48071

3.4.3 N=10000, M=10, n=m=5, p=4

Secvential: 83.6527 129.615 111.212 142.364 132.229 90.8104 133.094 121.255 95.4455 121.172 -> 108.19446

paralelLinii: 42.1857 43.8027 43.9279 45.8036 46.0192 37.8689 43.8387 43.7187 43.2114 40.714 -> 42.95711

paralelColoane: 39.3933 42.2063 36.9528 35.3806 42.6659 42.1976 39.7348 42.4022 40.2114 37.4346 -> 43.83855

3.4.4 N=10000, M=10, n=m=5, p=8

Secvential: 93.1057 115.522 209.203 166.399 102.94 87.8363 129.363 199.917 90.2707 107.003 -> 109.1355

paralelLinii: 68.9559 30.3296 30.6771 29.9688 79.568 43.5391 49.6499 31.7432 55.5525 51.4756 -> 45.14097

paralelColoane: 30.8397 32.7488 29.0315 42.2288 33.0775 45.6398 29.3403 32.5401 32.9095 29.8475 -> 35.82545

3.4.5 N=10000, M=10, n=m=5, p=16

Secvential: 91.5141 125.962 121.813 91.7384 86.247 88.3686 159.776 105.585 110.974 97.1944 -> 108.92045

paralelLinii: 40.406 41.2433 58.5714 64.5786 40.3506 35.4426 32.4701 53.8653 52.2954 54.5888 -> 47.48421

paralelColoane: 27.2391 31.3643 40.3206 38.0428 33.7319 26.8514 37.9441 38.5729 37.9547 35.9294 -> 34.70412