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|--|---|-------------|----------------------|------------------------|--|--|-------------|------------------|--------------------|----------|--------------|----------|--------------|----------|--|
| | | | | | | | | | | | | | | | |
| | Basic Computational Operation Execution Time τ (sec): | | | | | | | | | | | | | | |
| | Test Number | Matrix size | Execution Time (sec) | Theoretical time (sec) | | | Matrix size | Serial algorithm | Parallel algorithm | | | | | | |
| | 1 | 10 | 0.000003 | 0,0000003 | | | | | 2 processors | | 4 processors | | 8 processors | | |
| | 2 | 100 | 0.000067 | 0,0000354 | | | | | Time | Speed up | Time | Speed up | Time | Speed up | |
| | 3 | 1000 | 0.008975 | 0,0035576 | | | 10 | 0,0000030 | 0,0000470 | 0,064 | 0,000073 | 0,041 | 0,000208 | 0,014 | |
| | 4 | 2000 | 0.017838 | 0,0142339 | | | 100 | 0,0000670 | 0,001169 | 0,057 | 0,001399 | 0,048 | 0,000393 | 0,170 | |
| | 5 | 3000 | 0.032226 | 0,0320289 | | | 1000 | 0,0089750 | 0,004291 | 2,092 | 0,004916 | 1,826 | 0,01076 | 0,834 | |
| | 6 | 4000 | 0.056865 | 0,0569426 | | | 2000 | 0,0178380 | 0,014102 | 1,265 | 0,010577 | 1,686 | 0,017789 | 1,003 | |
| | 7 | 5000 | 0.088975 | 0,0889750 | | | 3000 | 0,0322260 | 0,033413 | 0,964 | 0,023057 | 1,398 | 0,028408 | 1,134 | |
| | 8 | 6000 | 0.132019 | 0,1281261 | | | 4000 | 0,0568650 | 0,059111 | 0,962 | 0,042965 | 1,324 | 0,043085 | 1,320 | |
| | 9 | 7000 | 0.182455 | 0,1743960 | | | 5000 | 0,0889750 | 0,087536 | 1,016 | 0,073107 | 1,217 | 0,075477 | 1,179 | |
| | 10 | 8000 | 0.243353 | 0,2277845 | | | 6000 | 0,1320190 | 0,127402 | 1,036 | 0,103609 | 1,274 | 0,137469 | 0,960 | |
| | 11 | 10000 | 0.375862 | 0,3559178 | | | 7000 | 0,1824550 | 0,313027 | 0,583 | 0,126485 | 1,443 | 0,138243 | 1,320 | |
| | 12 | 20000 | 1.927681 | 1,4237068 | | | 8000 | 0,2433530 | 0,370869 | 0,656 | 0,154685 | 1,573 | 0,210505 | 1,156 | |
| | | | | | | | 10000 | 0,3758620 | 0,694074 | 0,542 | 0,498306 | 0,754 | 0,372504 | 1,009 | |
| | (5000): $\tau = T/N$, $N = 49995000$, $T = 0.088975$, $\tau \approx 1.77967797 \times 10^{-9}$ | | | | | | 20000 | 1,9276810 | 13,411404 | 0,144 | 8,680656 | 0,222 | 11,842251 | 0,163 | |