

Lab7

运行截图

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hanami@Hanami:~/hpc_practice/lab7-mpi$ mpicc mpi_gemm.c -o mpi_gemm
hanami@Hanami:~/hpc_practice/lab7-mpi$ mpirun -n 2 ./mpi_gemm
矩阵A的值为:
0.383 0.886 0.777 0.915
0.793 0.335 0.386 0.492
0.649 0.421 0.362 0.027
0.690 0.059 0.763 0.926
0.540 0.426 0.172 0.736
0.211 0.368 0.567 0.429
0.782 0.530 0.862 0.123
0.067 0.135 0.929 0.802
矩阵B的值为:
0.022 0.058 0.069 0.167 0.393 0.456 0.011 0.042 0.229 0.373 0.421 0.919 0.784 0.537 0.198 0.324
0.315 0.370 0.413 0.526 0.091 0.980 0.956 0.873 0.862 0.170 0.996 0.281 0.305 0.925 0.084 0.327
0.336 0.505 0.846 0.729 0.313 0.857 0.124 0.895 0.582 0.545 0.814 0.367 0.434 0.364 0.043 0.750
0.087 0.808 0.276 0.178 0.788 0.584 0.403 0.651 0.754 0.399 0.932 0.060 0.676 0.368 0.739 0.012
矩阵C的值为:
0.628 1.482 1.302 1.259 1.195 2.243 1.316 2.081 1.994 1.082 2.529 0.941 1.526 1.645 0.860 1.008
0.295 0.762 0.655 0.678 0.851 1.308 0.575 0.992 1.066 0.759 1.440 0.994 1.224 1.057 0.565 0.662
0.271 0.398 0.532 0.599 0.428 1.035 0.465 0.736 0.743 0.522 1.012 0.849 0.813 0.880 0.199 0.620
0.371 1.195 0.973 0.867 1.245 1.567 0.532 1.366 1.351 1.053 1.833 0.986 1.516 1.044 0.859 0.826
0.268 0.870 0.562 0.571 0.885 1.241 0.731 1.028 1.146 0.661 1.478 0.723 1.125 1.017 0.694 0.452
0.348 0.781 0.765 0.719 0.632 1.193 0.597 1.117 1.019 0.621 1.317 0.531 0.814 0.818 0.414 0.619
0.484 0.776 1.036 1.060 0.722 1.687 0.672 1.347 1.230 0.901 1.673 1.191 1.232 1.269 0.327 1.075
0.426 1.171 1.068 0.902 0.961 1.427 0.568 1.474 1.277 0.874 1.666 0.489 1.039 0.794 0.657 0.772
hanami@Hanami:~/hpc_practice/lab7-mpi$
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遇到的问题及解决方法

MPI运行环境外的printf指令会被执行多次，解决方法是把输出全部写进if(rank==0)的范围内