

```
li@localhost:~/hpc_practice_report/lab7-mpi$ mpirun -n 4 ./hellow
Hello world from process 0 of 4
Hello world from process 1 of 4
Hello world from process 2 of 4
Hello world from process 3 of 4
```

```
li@localhost:~/hpc_practice_report/lab7-mpi$ ./GEMMM
```

矩阵 A:

1.900078e-02	8.548636e-02	-3.314322e-01	2.440604e-02	-6.461445e-01	-7.460251e-01	5.706861e-01	-6.391164e-02
-3.681220e-01	3.359572e-01	-8.358069e-01	1.730207e-01	-7.762620e-01	-9.918196e-01	-1.155304e-01	-6.060053e-01
4.034051e-01	-6.577163e-01	-4.593707e-01	4.775171e-01	7.053617e-01	-9.989944e-01	-4.241922e-01	-1.056461e-01
-2.655067e-01	6.615583e-01	-8.514753e-01	7.433776e-01	6.223437e-01	-6.140962e-01	7.067059e-01	4.568796e-01
7.526247e-01	7.238108e-01	3.524515e-01	1.559346e-01	9.097746e-01	1.735603e-01	5.194394e-02	9.321860e-01
-2.580107e-01	5.384423e-01	6.203171e-01	9.294072e-01	8.085664e-01	-2.500817e-01	4.568334e-01	5.136816e-01
5.050480e-02	-8.948411e-01	-7.157754e-02	-3.329414e-01	-7.221695e-01	-9.464281e-01	-4.673714e-01	-6.788623e-02
-1.443309e-01	9.334593e-01	1.383701e-01	-2.143441e-01	3.723747e-01	-7.046941e-02	5.669680e-01	7.379329e-01

矩阵 B:

-7.319215e-01	8.165651e-01	-4.029224e-02	8.852518e-01	5.361704e-01	-2.435351e-01	-5.578819e-01	-3.161686e-01
6.921052e-01	5.488294e-01	-9.377434e-01	-2.239507e-01	5.038825e-01	-1.625671e-01	5.086909e-02	-8.637625e-02
-9.638247e-01	-2.678706e-01	2.168604e-01	8.610245e-01	-8.182718e-01	-7.231037e-01	-1.094956e-02	1.762435e-01
8.817096e-01	8.885760e-01	5.845223e-01	8.227684e-01	7.079334e-01	-2.383066e-01	7.650440e-01	1.702999e-01
3.401642e-01	7.696433e-01	-6.350064e-01	-3.245633e-01	-6.507111e-01	-4.004399e-01	5.476602e-01	-8.601459e-01
5.999431e-01	-1.096578e-01	5.024259e-02	6.562465e-02	-9.604593e-01	-9.579758e-01	-8.819950e-01	6.378629e-01
-7.135664e-01	-6.739431e-01	7.975177e-01	4.041545e-01	-1.618930e-01	-5.223948e-01	-7.603972e-01	-1.936786e-01
2.209206e-01	-1.503654e-01	-3.824202e-01	9.420213e-01	-4.072602e-01	-9.257813e-01	9.560251e-02	1.709661e-01

矩阵 C:

-7.024896e-01	-6.175928e-01	7.138585e-01	6.358140e-02	1.412361e+00	9.497799e-01	-1.198863e-01	-1.091875e-01
5.495472e-01	-5.828320e-02	2.023827e-01	-1.409116e+00	2.501541e+00	2.480544e+00	8.435441e-01	-7.664718e-02
3.326340e-02	1.469986e+00	-1.598574e-02	-6.368557e-02	1.211029e+00	1.221015e+00	1.691703e+00	-1.250213e+00
1.568243e+00	1.036256e+00	-3.969601e-01	-3.099131e-02	1.298360e+00	-5.740629e-02	1.148578e+00	-9.824464e-01
3.303513e-01	1.561958e+00	-1.425547e+00	1.551175e+00	-5.565088e-01	-2.013690e+00	1.271709e-01	-7.343229e-01
6.956050e-01	1.009126e+00	-1.748625e-01	1.339494e+00	-2.857657e-01	-1.493150e+00	1.240700e+00	-5.529886e-01
-1.375815e+00	-8.533851e-01	6.912177e-01	-1.710137e-01	8.812949e-01	1.767113e+00	4.605126e-01	8.840338e-02
2.721833e-01	-3.181251e-02	-1.034846e+00	4.047739e-01	-4.389421e-01	-1.226528e+00	-1.319781e-01	-3.960062e-01

```
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```

矩阵 A:

-1.000000e+00	-2.707955e-01	5.350056e-02	8.634630e-01
-9.980292e-01	-8.173388e-01	-9.113315e-02	1.361192e-01
-9.167380e-01	-8.154047e-01	-5.336431e-01	1.121887e-01
-6.467147e-01	-2.556555e-02	6.625836e-01	-8.983362e-01

矩阵 B:

5.341023e-01	7.519617e-01	6.208589e-01	-8.464509e-01
-9.621704e-01	6.311373e-02	-6.231595e-01	6.305478e-01
-4.952805e-01	8.405219e-01	7.726289e-01	9.697820e-01
-4.036057e-01	3.086230e-02	1.412280e-01	-7.632966e-01

矩阵 C:

-6.485473e-01	-6.974358e-01	-2.888289e-01	6.850690e-02
2.435675e-01	-8.744635e-01	-1.614911e-01	1.371329e-01
5.139494e-01	-1.185891e+00	-4.575017e-01	-3.413287e-01
-2.864045e-01	4.127308e-02	-5.261487e-04	1.859551e+00