高性能计算实验报告

信息学部 2023311704 王昕远

实验八

1 硬件配置

CPU型号：AMD Ryzen 7 7745HX with Radeon Graphics 物理核数：8 频率：3600MHz

avx avx2 avx512

内存大小：Mem 7973212

2 理论峰值计算

```
--------------------------------------------------------------------------------
||Ax-b||_oo/(eps*(||A||_oo*||x||_oo+||b||_oo)*N)=   2.07165390e-02 ...... PASSED
================================================================================
T/V                N    NB     P     Q               Time                Gflops
--------------------------------------------------------------------------------
WR00R2R2           35    4     1     4               0.00              6.3008e-01
HPL_pdgesv() start time Fri Sep 20 14:54:52 2024

HPL_pdgesv() end time   Fri Sep 20 14:54:52 2024

--------------------------------------------------------------------------------
||Ax-b||_oo/(eps*(||A||_oo*||x||_oo+||b||_oo)*N)=   1.65732312e-02 ...... PASSED
================================================================================
T/V                N    NB     P     Q               Time                Gflops
--------------------------------------------------------------------------------
WR00R2R4           35    4     1     4               0.00              8.9041e-01
HPL_pdgesv() start time Fri Sep 20 14:54:52 2024

HPL_pdgesv() end time   Fri Sep 20 14:54:52 2024

--------------------------------------------------------------------------------
||Ax-b||_oo/(eps*(||A||_oo*||x||_oo+||b||_oo)*N)=   1.65732312e-02 ...... PASSED
================================================================================

Finished    864 tests with the following results:
            864 tests completed and passed residual checks,
              0 tests completed and failed residual checks,
              0 tests skipped because of illegal input values.
--------------------------------------------------------------------------------

End of Tests.
================================================================================
```

3 软件环境

操作系统版本：Ubantu 22.04.3 LTS MPI：version 4.0 BLAS：0.3.20