

Hands on MPC

- To load MPC do: **module load mpc**
- You can privatize global variables using: **-fmpc-privatize**
- You can be warned about global variables : **-Wmpc**
- To compile use :
 - **mpc_cc** instead of mpicc
 - **mpc_cxx** instead of mpicxx
 - **mpc_f77** instead of mpif77

In fortran replace **program main_program** with
subroutine mpc_user_main

Very simple example program

direct use of the MPI interface

```
#include <mpi.h>
#include <stdio.h>

int main(int argc, char *argv[])
{
    MPI_Init( &argc, &argv );
    int rank;
    MPI_Comm_rank( MPI_COMM_WORLD, &rank );

    printf("Hello MPC %d\n", rank);

    MPI_Finalize();
    return 0;
}
```

mpc_cc ./test.c -o test

Launch method

- 8 Nodes 8 processes 8 x 16 tasks infiniband:
mpcrun -net=ib -N=8 -p=8 -n=128 ./a.out
- 8 processes 16 tasks infiniband:
mpcrun -net=ib -p=8 -n=16 ./a.out
- 8 processes 16 tasks tcp:
mpcrun -p=8 -n=16 ./a.out