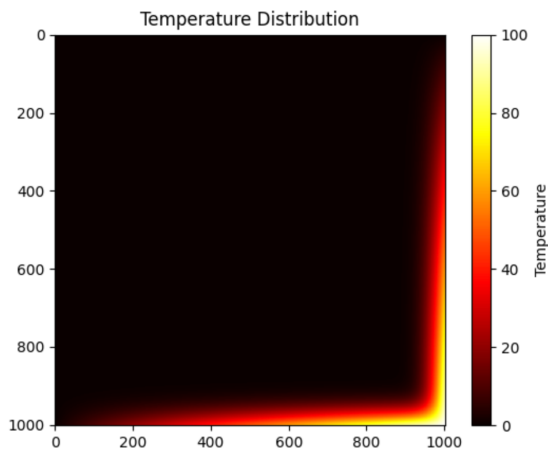


# Laplace Serial Code output:

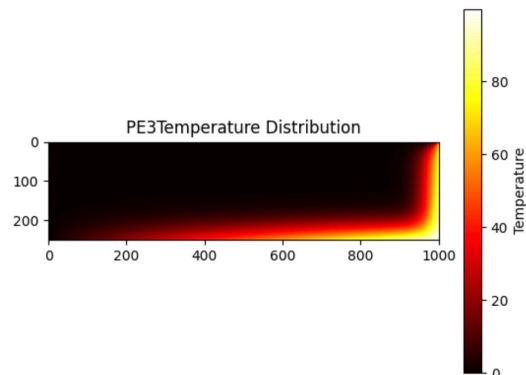
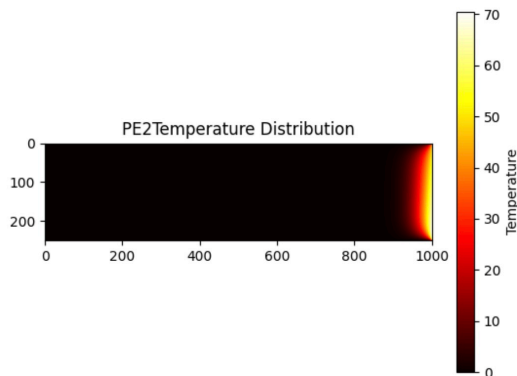
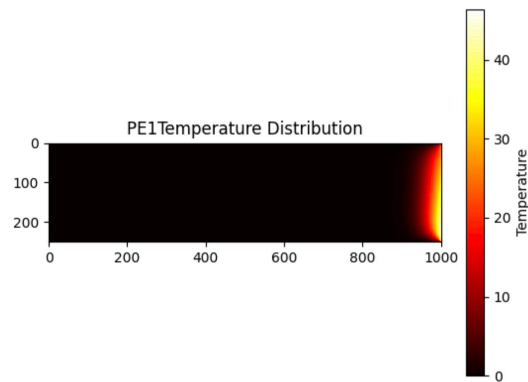
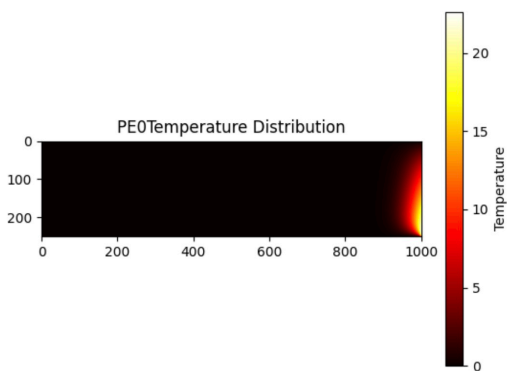
1000 x 1000



## MPI Laplace output:

(Max - TEMP\_ERROR = 0.001)

I printed the part that each PE is responsible for with the ghost cell :



↳ Parallel run Totaltime: VS.

For (Max-TEMP\_ERROR = 0.01)



```
≡ MPI_total_time.txt
1 268.8735649585724
```

For (Max-TEMP\_ERROR = 0.001)



```
≡ MPI_total_time.txt
1 1720.070620059967
```

↳ Serial code total time:

(Max-TEMP\_ERROR = 0.01)

6239.69 seconds

```
3365
Program took 6226.95 seconds to run.
3366
Program took 6228.77 seconds to run.
3367
Program took 6230.59 seconds to run.
3368
Program took 6232.42 seconds to run.
3369
Program took 6234.23 seconds to run.
3370
Program took 6236.05 seconds to run.
3371
Program took 6237.87 seconds to run.
3372
Program took 6239.69 seconds to run.
(mpi4py_env) [awu3@r001 ~]$
```