

7.
 - Telnet the SGI Origin 2000 machine (telnet sonoma.ncsc.org) using the same login name ma580_?, and change password.
 - Use anonymous *ftp ftp.ncsu.edu* to get file openmp1.f90, serialpi_mp.f, and serialpi.f and gettimef.f in the directory */pub/math/zhilin/TEACHING/MA402*.
 - Type `setenv OMP_NUM_THREADS 8`
 - Type `f90 -mp openmp1.f90` and run the program. Record your result.

 - Type `f90 -mp serialpi_mp.f gettimef.f` and run the program. Record your result.

 - Type `f90 serialpi.f gettimef.f` and run the program. Record your result. What is the speed-up for the parallel computation roughly?

8.
 - Telnet the IBM SP2 machine (telnet sps001.ncsc.org, or sps002.ncsc.org, or sps003.ncsc.org) using the same login name ma580_?, and change password ONLY through *telnet spcws.ncsc.org*.
 - Use anonymous *ftp ftp.ncsu.edu* to get all the files, in the directory */pub/math/zhilin/TEACHING/MA402*.
 - Type `mpxlf90 -O4 matvecmo.f1` and run the code with 2, 4, 8, and 16 processors with `poe ./a.out -procs 4 -hfile cpus16`, for example. Record the time. Record the time. **Note:** poe is a program of parallel programming environment which can distribute the resources more efficiently.

 - Repeat for the file `heat2dm.f` and `poll2dm.f`.

9. Finally let us put a job in queue

```
llsubmit envrmpi8
llq
llcancel 46386
```

```
submit a job
check list of jobs
for example.
```

¹It is *mpcc* in C language.