

## Homework 2

Copy the hw2code.tar file to Scholar using ftp, e.g., *ftp scholar.rcac.purdue.edu*.

Log into *scholar.rcac.purdue.edu* and untar it (*tar -xv -f hw2code.tar*) and go into the resulting *hw2code* directory. Compile *omp\_hello.c* and *omp\_hello2.c* and put the output of the compiles into *omp\_hello* and *omp\_hello2*, respectively. Run the programs using the *qsub* command and the *openmp.sub* script.

**What to turn in:** You will get output files called *openmp.sub.oxxxx* and *openmp.sub.exxxx*, where *x* are integer digits. The *.oxxxx* file contains the stdout output from the programs, and the *.exxxx* contains the stderr output. The *.exxxx* file should be empty. Create a directory called *userid* (your Purdue userid, not literally *userid*!) and put the *.exxxx* and *.oxxxx* files into the directory. Create a *.zip* file for the directory and turn this into Blackboard.

### Notes:

To compile with the Intel compiler, once logged into Scholar type

```
module load intel  
icc -qopenmp -std=c99 your_program.c -o your_program
```

You can submit your job using:

```
qsub openmp.sub
```

but it will default to a longer running time than we need, and will end up in a lower priority, slower queue. Using the command

```
qsub -l walltime=00:00:30 openmp.sub
```

will give your job 30 seconds of walltime, which is approximately 30 seconds on all 20 cores of a Scholar node, and will be more than enough time to run this job, and most of our programs.

**Documentation can be found at the course web page at**

<https://engineering.purdue.edu/~smidkiff/ece563/scholar.html>. It has a link to the main scholar documentation page at <https://www.rcac.purdue.edu/knowledge/scholar/all>, which will prove invaluable during the semester.

Even though this is due on Wednesday, if you don't have it working then I'll give you more time. It is essential for future homework and the project that you figure this out.