

Intermediate OpenMP

Username: tra0xx
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Requesting Resources qsub resources:

```
$ qsub -I -l nodes=1:ppn=32:xe,walltime=01:30:00
```

Example 1: Learning conditional loop parallelism

Compile:

```
$ cc parallel_for.c -o parallel_for
```

Run:

```
$ export OMP_NUM_THREADS=4 && ./parallel_for
```

Output: Please try different number for number of iterations and limit when the parallel should run in parallel.

Example 3: Race Coundition

Compile:

```
$ cc race_condition.c -o race_condition
```

Run:

```
$ export OMP_NUM_THREADS=4 && ./race_condition
```

Output:

```
There is something wrong with this example fix it
Thread 2 : My value of tid (thread id) is 2
Thread 0 : My value of tid (thread id) is 0
Thread 1 : My value of tid (thread id) is 1
Thread 3 : My value of tid (thread id) is 3
```

Did you figure out what's wrong?

Hint: do a # comparison

Example 4: Variable initialization

Compile:

```
$ cc initialization.c -o initialization
```

Run:

```
$ export OMP_NUM_THREADS=4 && ./initialization
```

Example 5: Pi Numerical integration

Compile:

```
$ cc initialization.c -o initialization
```

Run:

```
$ export OMP_NUM_THREADS=4 && ./initialization
```