Exercise: Debugging Parallel Codes

1. Log into the Linux cluster supercomputer (sooner.oscer.ou.edu).

2. Confirm that you're in your home directory:
   ```
   pwd
   /home/yourusername
   ```

3. Check that you have a `NCSIPARI2011_exercises` subdirectory inside your home directory:
   ```
   ls
   NCSIPARI2011_exercises
   ```

4. Copy the `Errors` directory into your `NCSIPARI2011_exercises` directory:
   ```
   cp -r ~amweeden/NCSIPARI2011_exercises/Errors ~/NCSIPARI2011_exercises
   ```

5. Go into your `NCSIPARI2011_exercises` subdirectory:
   ```
   cd NCSIPARI2011_exercises
   ```

6. Confirm that you're in your `NCSIPARI2011_exercises` subdirectory:
   ```
   pwd
   /home/yourusername/NCSIPARI2011_exercises/
   ```

7. See what files or subdirectories (if any) are in the current working directory:
   ```
   ls
   ```

8. Go into your `Errors` subdirectory:
   ```
   cd Errors
   ```

9. Confirm that you're in the `NCSIPARI2011_exercises` subdirectory:
   ```
   pwd
   /home/yourusername/NCSIPARI2011_exercises/Errors
   ```

10. See what files or subdirectories (if any) are in the current working directory:
    ```
    ls
    ```

11. Edit the batch script `errors.bsub` to use your username and e-mail address.

12. The files `errors.c` is a (intentionally) buggy hybrid code. Your task in this assignment is to fix as many of the bugs as you can.
    - Use the tips we taught during the debugging lecture.
    - To build the code, use the `make` command (see the `Makefile` for available arguments to `make`).
- To run, use the `bsub < errors.bsub` command.
- Make sure to examine the outputs of the stdout and stderr .txt files to help you debug.