

**CSC 7220: Parallel Computing II: Algorithms and  
Applications**  
**ECE 7610: Advanced Parallel and Distributed Systems**  
**Homework 4**  
**Winter 2023**

**Assigned on:** Monday March 20, 2023

**Due on:** Monday March 27, 2023, 2:30pm

**Description:** Write an MPI program that implements the hypercube bitonic sort algorithm (see pages 392-393). The program should be tested using a sequence of 64 integers (from 1 to 64, initially not sorted) and 8 processes. The number of elements assigned to each process is 8.  
The program must be executed on the Wayne State Grid system.  
You should record the output of your programs in a file called `output.txt` using the `script output.txt` command.

**Submission:** You should submit via Canvas (HW3 module) a zip file containing the source of the program and `output.txt`.