# Project 2: Multithreaded Mergesort

**Problem:** Implement the two multithreaded mergesort algorithms from the textbook: MERGE-SORT’ (pg. 797) and P-MERGE-SORT (pg. 803).

**Specifications:**

* Use benchmarking for different values for *n* (input size) to compare:

1. The two multithreaded algorithms.
2. The two multithreaded algorithms with their corresponding sequential versions (no spawn operations).

* You may use any programming language.
* In Python, you may use the multiprocessing module (<http://docs.python.org/2/library/multiprocessing.html>). When using Python, you should know that in CPython, the **global interpreter lock** is a mutex that prevents multiple native threads from executing Python bytecodes at once. This lock is necessary mainly because CPython's memory management is not thread-safe. Therefore, you better compile your Python code using Jython or IronPython. (read: <https://wiki.python.org/moin/GlobalInterpreterLock>).