Recitation 1: Overview
Requirements for CSE 549

• One in-class presentation on an assigned paper
• Read and discuss (on Piazza and in class) all assigned papers
• Final project (in groups of 2-4): Project proposal, a short presentation, and a written report.
Logistics for Assigned Readings

• We'll assign a paper to read for most Fridays.
• Each week, 2-3 students will present the assigned paper(s).
• On the Tuesday before you present in class, you should practice your presentation to us and incorporate our comments into your presentation.
• All students should read all assigned papers and participate in discussions.
List of Assigned Readings

- R2 (09/05): Work-Stealing Analysis
- R3 (09/12): Introduction to Cache Analysis
- R4 (09/19): Cache-Oblivious Algorithms
- R5 (09/26): Cache-Aware and Cache-Oblivious Sorting
- R6 (10/03): Cache Analysis of Work-Stealing
- R7 (10/10): Introduction to Concurrent Programming
- R8 (10/24): Concurrent Queue
- R9 (10/31): Reducers
- R10 (11/07): Parallel Breath-First Search
Final Project Timeline

• Send us a (private or public) Piazza note about your project ideas by Oct. 07.
• Schedule appointments on / before Oct. 07 if you want to chat in person about project ideas.
• A 2-4 page project proposal is due on Oct. 17. It should contain some preliminary literature review and a precise problem definition.
• Project proposal should contain a "Plan B."
• A 20-min final project presentation in class on Nov. 14 and Nov. 21.
• Final project report due on Dec. 05.
Possible Final Project Ideas

• Comparing concurrent data structures (implementation, experimental evaluation, and possible improvement)
• Cache-aware vs. cache-oblivious algorithms
• Parallelization of a real-world application
• Augment the Cilk Plus or Cilk runtime system to collect performance data, such as cache-misses.
• Design and analyze a new scheduler, for example, scheduling on processors with different speed that allow preemption at certain points.
• Improve upon the implementation of reducer hyperobjects