

CPSC 521: Parallel Algorithms and Architectures

- All computing is parallel computing
 - ▶ Multi-core CPUs in everything.
 - ▶ Huge linux farms for cloud computing, and big-data, and scientific computing
 - ▶ GPUs for machine learning, scientific computing and even for graphics!
- Parallel Computing is multi-paradigm:
 - ▶ We'll explore message passing, shared-memory, and data parallel.
 - ▶ Fun algorithms: parallel versions of old friends and some new and surprising ways to get the job done.
 - ★ Addition is free – communication is critical
- Applications in everything:
 - ▶ We'll look at machine learning, scientific computing, and other areas.
 - ▶ You get to pick some of the papers we read, especially the application papers.
- CPSC 521 counts for systems breadth.
- Term 2, MW 10:30-12:00, mrg@cs.ubc.ca