Lectures

- Parallel Computers, Current Machine Examples
- Message-Passing Computing, MPI Intro
- Parallel computing on GPUs
- Embarrassingly Parallel Computations
- Partitioning and Divide-and-Conquer Strategies, parallel sort, pbsort code (zip)
- Think parallel...
- Pipelined Computations
- Synchronous Computations
- Load Balancing and Termination Detection
- Parallel programming with Shared Memory
  - Multicore Programming
    - OpenMP
    - Cilk, part 1
    - Cilk, part 2 (dyn.progr.)
    - Cilk, part 3
    - links
- Parallel programming with Distributed Memory
  - Distributed memory parallel machines
  - Massively parallel processor arrays
  - Massively parallel hypercubes

Supercomputing 2009 Proceedings
- Coarse grained parallel programming
- CGM algorithms: Comp. Geom., graph algo, (list rank.), CGMlib
- Projects: Data Cube, Comp. Bio., PIPE

- Distributed Shared Memory Systems and Programming
- Sorting Algorithms
- Numerical Algorithms
- Image Processing