Final Notes

Topics We Covered

- computer basics

- numerical linear algebra

- optimization

- smoothing

- a little machine learning

- simulation

- MCMC

- a (very) little parallel computing

Some Topics We Did Not Cover

- bootstrap

- graphics and visualization

- data technologies

- numerical integration

- symbolic computation

- data mining

- pattern recognition

- functional data analysis

- Parallel computing for big data

    - Distributed arrays, `pbd` packages.
    - MapReduce, distributed file systems, and Hadoop.
    - Distributed data frames and Spark. Some examples on line.

- Cloud computing

Homework and Projects

Some of the things you got from these:

- practice writing non-trivial programs that work

- appreciation of basic numerical issues

- experience using the computer to explore ideas

- a better understanding of R

- experience in understanding and extending a statistical analysis framework

- practice in conducting simulation experiments

- a deeper understanding of some topic of your choice