

1 Basic information

Students will form groups and give an oral presentation in the last two teaching weeks (including dead week).

- Worths 20% of the overall course grade
- Group project:
 - group of 4 students (one group has 5)
 - 5 groups in total
 - need a group leader for communication purpose

2 Format

- 35 minutes presentation
- 5 minutes Q&A
- Goal: give a mini-lecture of a topic related to statistical computing or computational statistics
- Not necessary that all teammates speak (some teammates may be responsible for the presentation materials e.g., slides, demonstration code, shiny applications, etc.)
 - Unless significant unbalanced division of labor is reported, the whole group will receive the same score.
 - The same grouping will be used to for final project. Therefore, you have the freedom to assign slight unbalanced division of labor in the presentation, and make up for it in the final project. But it is expected that every teammate takes part in both the presentation and the final project.
- the detailed presentation schedule will be announced, after group formation.

3 Topics

Each group require a unique topic. You can come up with a topic and discuss with me. Otherwise, you can choose from the following:

- Object-oriented system in R
- Parallel computing in R (and bigmemory package)
- EGO: Efficient Global Optimization of Expensive Black-Box Functions
- Particle Swarm Optimization
- Minimum Description Length Principle (and related computations)
- Reversible Jump MCMC
- Bag of Little Bootstrap
- (Cellular Automata)
- More about Rcpp (Rcpp sugar, RcppEigen, RcppArmadillo, etc.)

4 Timeline

- By March 7: Submission of group member list (by the group leader)
- By March 23: Confirmation of the topic (by the group leader)
- April 20, 25 and 27 (in-class): Presentation