

Statistical Software Camp: Introduction to R

August 24, 25, 27, 31 and September 1, 2009

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3:30pm to 5pm

The primary goal of this statistical software camp is to get participants well prepared for the “Q” sequence, in which students will be asked to do exercises/problem sets using R. Participants will learn the basic usage of R for data analysis (e.g. how to read and manipulate data in various file formats; how to compute basic statistics such as mean and variance; how to create various charts and graphs; how to conduct a simple simulation, etc.) as well as some introductory programming in R.

1 Logistics

- Date: August 24, 25, 27, 31 and September 1, 2009
- Time: 3:30pm to 5pm
- Room: 108 Friend Center
- Website: <http://www.princeton.edu/~tyamamot/software09>
- The classroom is equipped with student computers, but you might want to bring your own laptop if you have one.
- Handouts and other class materials will be available by the beginning of each session on the camp website. Solutions to exercises will also be provided.

2 Camp Plan

Day 1 Basic Concepts and Illustration.

Day 2 Matrices, Data Manipulation, Summary Statistics, and Graphs.

Day 3 Bivariate Data Summary and Graphing.

Day 4 Probability and Simulation.

Day 5 R Programming Basics.

3 Useful References

Although there is no required readings for this camp, you might find the following books useful.

- Venables, W.N. and Smith, D.M. 2009. *An Introduction to R*, 2nd ed. (The electronic version of this book is bundled in your standard R installation.)
- Verzani, J. 2006. *Using R for Introductory Statistics*. (A shorter draft version of this monograph is available (for free!) at <http://cran.r-project.org/doc/contrib/Verzani-SimpleR.pdf>)
- Dalgaard, P. 2008. *Introductory Statistics with R*, 2nd ed.
- Venables, W.N. and Ripley, B.D. 2002. *Modern Applied Statistics with S*, 4th ed. (Advanced but useful)

4 Instructor Information

My contact information is:

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If you have any question, please don't hesitate to contact me either via email or just stopping by. I am usually working (or doing something less productive) at my Corwin desk during the daytime.