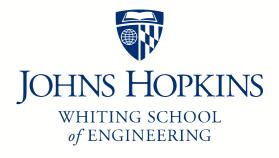
Johns Hopkins Engineering 625.464 Computational Statistics

A Few Comments on R
Part 1
Module 1 Lecture 1B



What is R?

R is a powerful software for interacting with data. Is also a programming language.

Documentation can be found at www.r-project.org or by searching "R software".

- ·A (very) Short Introduction to R - Torfs - Brauer
 - · A Quink Into to R - wilkenson

General Comments on R

· R is case sensitive · variable namer should only contain A-Z, a-Z, D-9 · does not print variable assignments · commands sep by; or a newstine and grouped by braces [3] · R-15 interpretive 1# 40 comment Recall commands using and vifa command Loesn't end, tappears on next line

R as a calculator

$$2+3-7$$
 $2+3/4$
 $59r + (100)$
 100

Simple objects in R

Simple arrays
$$((1,2,3))$$

$$1:10$$

$$10:1$$

$$1:10+11:20$$

$$f_{n}=C(1,9,8,...$$

$$(10:1)^{2}$$

$$Assigning variables$$

$$Q = 1:10$$

Simple functions in R

Matrices

Hamilton
$$A = \text{matrix} \left(C(1,3,5,2,4,6), \text{nrow} = 2 \right)$$

$$aa = C(1:10,1:10)$$

$$bigaa = \text{array} \left(aa, \text{dim} = C(4,5) \right)$$

$$A \left[1, 7 \right] < \text{row}$$

$$A \left[2, 17 \right]$$

$$A \left[1, 7 \right] < \text{row}$$

$$A \left[2, 17 \right]$$

$$A \left[1, 7 \right] < \text{row}$$

$$A \left[2, 17 \right]$$

$$A \left[2, 17 \right]$$

$$A \left[3, 27 \right] < \text{row}$$