Introduction to biostatistics and machine learning

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Preface

This "bookdown" book contains teaching and learning materials prepared and used during "Introduction to biostatistics and machine learning" course organised by NBIS, National Bioinformatics Infrastructure Sweden. The course is open for PhD students, postdoctoral researcher and other employees in need of biostatistical skills within Swedish universities. The course is geared towards life scientists wanting to be able to understand and use basic statistical and machine learning methods. It also suits those already applying biostatistical methods but who have never gotten a chance to reflect on or truly grasp the basic statistical concepts, such as the commonly misinterpreted p-value.

More about the course https://nbisweden.github.io/workshop-mlbiostatistics/

Chapter 1

Preliminary Mathematics for Statisticians

Chapter 2

Introduction to R and R Studio

2.1 R

2.2 R Studio

Chapter 3

Probability theory

Chapter 4

Linear regression

4.1 Simple regression

4.2 Multiple regression