Mathematical Statistics I

Chapter 5: Limit theorems

Jesse Wheeler

Outline

Convergence Concepts

Introduction

- This material comes primarily from Rice (2007, Chapter 4).

- We will cover the ideas of expected value, variance, as well has higher-order moments.

- This includes topics such as conditional expectation, which is one of the fundamental ideas behind many branches of statistics and machine learning.

- For instance, most regression / prediction algorithms are built with the idea of minimizing some conditional expectation.

References and Acknowledgements

Rice JA (2007). *Mathematical statistics and data analysis*, volume 371. 3 edition. Thomson/Brooks/Cole Belmont, CA.