LINKÖPINGS UNIVERSITET

Probability Theory, Part 1, 8.0 credits

Sannolikhetsteori, del 1, 8.0 hp

Third-cycle education course

MAI0074

Department of Mathematics

Valid from: First half-year 2023

Approved by
Head of Department

Approved

Registration number

Entry requirements

Advanced undergraduate courses in probability theory and analysis. Measure and integration theory helpful, but not necessary.

Contents

Measure-theoretic foundations of probability theory; probability distributions; random variables; expectation; convergence concepts; laws of large numbers; characteristic functions; central limit theorems; conditional expectation and regular conditional distributions.

Educational methods

Lectures.

Examination

Home assignments.

Grading

One-grade scale

Course literature

Durrett, R. (2019). *Probability: theory and examples*, 5th ed. Cambridge University Press.

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