

Information Theory II

Spring Semester 2023

Prof. Dr. A. Lapidoth / Prof. Dr. S. Moser

Signal and Information
Processing Laboratory

Institut für Signal- und
Informationsverarbeitung



Information about the Course

<http://www.isi.ee.ethz.ch/teaching/courses/it2.html>

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Lectures Thursday, 2.15 – 4.00 pm in **ETZ E 9**

Tutorials Thursday, 4.15 – 6.00 pm in **ETZ E 9**

Prerequisites

- Solid foundation in probability and calculus
- Pleasure with mathematics
- English (lectures and tutorials are in English)
- Information Theory I

Lecture Notes Thomas M. Cover and Joy A. Thomas: *Elements of Information Theory*, 2nd Edition, John Wiley & Sons, 2006.

Tutorials The assistant provides hints and answers questions for the weekly homework exercises. Exercises may be handed in one week after the assignment (no Testat).

Exam The exam is oral (30 min, in English).

Supplementary Literature

- Stefan M. Moser: *Information Theory (Lecture Notes)*, 6th edition, 2018. Available at <https://moser-isi.ethz.ch/scripts.html>.
- Stefan M. Moser: *Advanced Topics in Information Theory (Lecture Notes)*, 5th edition, 2022. Available at <https://moser-isi.ethz.ch/scripts.html>.
- Abbas El Gamal and Young-Han Kim: *Network Information Theory*, Cambridge University Press, 2011.
- Gerhard Kramer: *Topics in Multi-User Information Theory*, Foundations and Trends in Communications and Information Theory, vol. 4, no. 4–5, pp. 265–444.