

# Information Theory

Lecture notes

## Introduction

# Organization

Professors:

- ▶ Lectures: Nicolae Cleju
- ▶ Laboratories: Irina Pavel

Grades

- ▶ Final grade = 0.6 Exam + 0.4 Overall semester grade (Lab + Tests)

Time schedule

- ▶ 14 weeks of lectures (3h each)
- ▶ 14 weeks of laboratories (2h each)
- ▶ Office hours: — (best by appointment)

## Exercises & Tests

### Grades:

- ▶ Labs: there will several quizzes in the labs (almost every lab) + activity assessment
- ▶ Exam: exercises (two thirds) & theory questions (one third)

# Course structure

1. Chapter I: Discrete Information Sources
2. Chapter II: Source Coding
3. Chapter III: Discrete Transmission Channels
4. Chapter IV: Error Control Coding

# Bibliography

1. *Elements of Information Theory*, Valeriu Munteanu, Daniela Tarniceriu, Ed. CERMI 2007
  2. *Elements of Information Theory*, Thomas M. Cover, Joy A. Thomas, 2nd Edition, Wiley 2006
  3. *Transmisia si codarea informatiei*, lectures at ETTI (Romanian)
  4. *Information and Coding Theory*, Gareth A. Jones, J. Mary Jones, Springer 2000
- ▶ Lecture notes (draft version) are available on Github  
([github.com/nikcleju/IT\\_Course](https://github.com/nikcleju/IT_Course))
  - ▶ All materials are on Github.