Information Theory (Summer 2023)

- how to model *information sources* and *channels* mathematically?
- how to optimally *compress* information?
- how to design *error-correcting codes* for noisy channels?
- how to make *predictions* from noisy data?

*Information theory* answers these questions! Originating in Shannon’s groundbreaking work, underpins widely used technologies (LTE, 5G, ZIP, ECC, ...).

**Highlights:** Huffman, Lempel-Ziv, Reed-Solomon, arithmetic coding, ...

**Format:** Lectures, theory and programming exercises, student presentations.