Concentration of measure in probability and high-dimensional statistical learning

**Context:** large-scale / high-dimensional **machine learning**

ex: digit recognition, image classification

**Content:** the notion of **concentration of measure** and its applications

- **Deviations inequalities** for averages of independent variables
  - analysis of random graphs
  - random projections for dimension reduction

- **Concentration of high-dimensional random functions**
  - guarantees for randomized algorithms
  - generalization guarantees for statistical learning
  - efficient algorithms to learn from large training collections

A joint course between CS & maths

First course: this afternoon, 13:30, Amphi A