

Optimization 40999**AY 2026/27****Instructor: Andrea Celli**

This course covers the theoretical foundations and modern algorithmic techniques in convex optimization and online convex optimization.

Program:

1. Basics of convex geometry
2. Separation
3. Duality
4. Ellipsoid algorithm
5. First order methods and lower bounds
6. Acceleration
7. Mirror descent
8. Adaptive gradient methods
9. Online convex optimization: Follow the regularized leader (FTRL) and optimistic variants