



Institut de Matemàtica

# Optimization: Practicals 1-6

Fall Semester 2022

MSc in Fundamental Principles of Data Science 2022-23

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# List of Practicals

- 1. Relevant Concepts for Numerical Optimization: An Introductory Review.**
- 2. Principles of Gradient Descent.**
- 3. Robust Linear Regression.**
- 4. Constrained Optimization: Equality Constraints.**
- 5. Constrained Optimization: Equality and Inequality Constraints.**
- 6. Stochastic Gradient Descent for SVM.**

# General Remarks

- Optimization Practicals: on Mondays 14-16h.
- Office Hours: Mon 12-14h, Prof. Ignasi Cos, Office P2 33.
- Each practical has to be submitted on time. No delays tolerated.
- Each practical contributes equally to the final mark: 1/6.

# Fall 2022 Calendar for Optimization

Week / Weekday	Monday	Tuesday	Wednesday	Thursday	Friday
12-18 Sept. Week 1	Introduction	Regular Lecture			
19-25 Sept. Week 2	Lab Session 1	Regular Lecture			
26 Sept -02 Oct. Week 3	<b>Holiday</b>	Regular Lecture			
3-9 Oct. Week 4	Lab Session 1	Regular Lecture	Deadline Delivery P1		
10-16 Oct. Week 5	Lab Session 2	Regular Lecture	<b>Holiday</b>		
17-23 Oct. Week 6	Lab Session 2	Regular Lecture			
24-30 Oct. Week 7	Lab Session 3	Regular Lecture	Deadline Delivery P2		
31 Oct-06 Nov. Week 8	Lab Session 3	Regular Lecture			
07-13 Nov. Week 9	Lab Session 4	Regular Lecture	Deadline Delivey P3		
14-20 Nov. Week 10	Lab Session 4	Regular Lecture			
21-27 Nov. Week 11	Lab Session 5	Regular Lecture	Deadline Delivery P4		
28Nov -04 Dec. Week 12	Lab Session 5	Regular Lecture			
05-11 Dec. Week 13	<b>Holiday</b>	<b>Holiday</b>		<b>Holiday</b>	
12-18 Dec. Week 14	Lab Session 6	Regular Lecture			
19-26Dec. Week 15	Lab Session 6	Regular Lecture	Deadline Delivery P5 & P6	<b>Holiday</b>	