PhD School on Machine Learning and Optimization

CWI Amsterdam, 2-4 September 2025

Dear PhD students, postdocs, and junior researchers,

We are pleased to invite you to the **International PhD School on Machine Learning and Optimization**, organized as part of the CWI Research Semester Programme on Learning Enhanced Optimization. This three-day event will take place from 2 to 4 September 2025 at CWI, Science Park 125, Amsterdam, The Netherlands.

# About the PhD School

As computation increasingly moves into real-time, data-driven, and uncertain settings, classic algorithmic paradigms are being reimagined through the lenses of learning theory, incentive design, and machine-learned predictions. This PhD School delves into the theoretical and algorithmic foundations of integrating such novel techniques into algorithm design. The school combines lectures with collaborative group works.

It is tailored for PhD students in theoretical computer science, algorithms, machine learning, operations research and related fields. Advanced Master’s students and early-career researchers or postdocs with a strong theoretical background are also warmly encouraged to participate.

# Lecturers & Topics

Each day features two in-depth lectures by renowned researchers, followed by collaborative group work and discussions. The schedule is as follows:

Day 1: Tuesday, 2 September

**Anupam Gupta (New York University)**

Topic: Learning for Online Algorithms: The Multiplicative Weights Method

Day 2: Wednesday, 3 September

**Michal Feldman (Tel Aviv University)**

Topic: Algorithmic Contract Design

Day 3: Thursday, 4 September

**Ola Svensson (EPFL)**

Topic: Algorithms with Predictions for Faster Execution and Better Decisions

# How to Register

Registration is now open! Please make sure to secure your spot by registering at

<https://cwi-business-society.weticket.io/registration-for-international-phd-school-machine-learning-and-optimization>

To facilitate catering during the event, a registration fee of 60 Euro per participant is required; this fee covers lunches and refreshments for the duration of the school. Please note that registration will be processed on a first-come, first-served basis and will close once full capacity is reached.

**The registration deadline is August 24, 2025.**

# More information

For more information about the PhD School, please visit the official event page:

<https://www.cwi.nl/en/events/cwi-research-semester-programmes/phd-school-machine-learning-and-optimization/>

Should you have any questions, feel free to contact us at events@cwi.nl.

We look forward to your participation in this exciting event!

Best regards,

Guido Schäfer

(on behalf of the PhD School organizers)