

Learning Enhanced Optimization

CWI

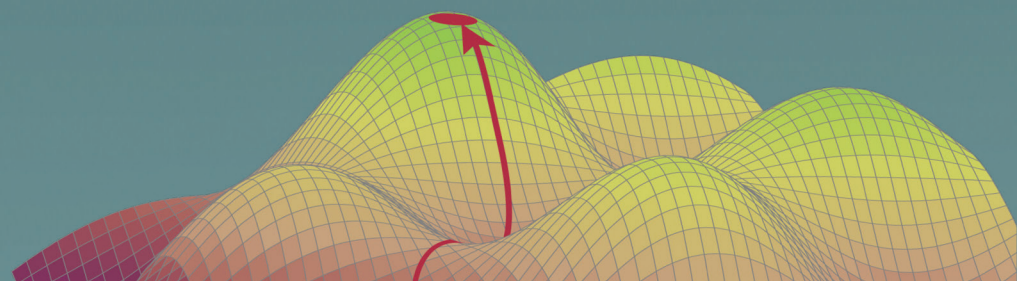
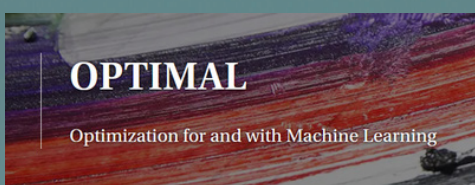
RESEARCH
SEMESTER
PROGRAMME

SATELLITE WORKSHOP 2

LEARNED METHODS FOR OPERATIONS RESEARCH

PROGRAMME - MONDAY 3 NOV 2025

- 09:30–10:00 Registration & Coffee/Tea
- 10:00–10:10 Welcome by Ilker Birbil
- 10:10–11:00 Jannis Kurtz – Deep Learning Enhanced Robust and Bilevel Optimization
- 11:00–11:30 Coffee/Tea
- 11:30–12:00 Ward Romeijnders – Decomposition algorithms for stochastic mixed-integer programs
- 12:00–12:30 Ahmadsreza Marandi – Robust Spare Part Inventory Management
- 12:30–13:30 Group Photo + Lunch
- 13:30–13:45 Christopher Hojny – Verifying Message-Passing Neural Networks Via Topology-Based Bounds Tightening
- 13:45–14:00 Francesco Giliberto – Optimal Information Relaxation Bounds for Multi-Stage Stochastic Optimization
- 14:00–14:15 Daan Otto – Coherent Local Explanations for Mathematical Optimization
- 14:15–15:00 Coffee/Tea
- 15:00–16:00 Dimitris Bertsimas (online) – The R.O.A.D. to precision medicine
- 16:00–17:30 Reception at CWI Forum ('Dutch appetizers and drinks')



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PROGRAMME - TUESDAY 4 NOV 2025

09:50–10:00 Coffee/Tea

10:00–11:00 Andrea Lodi – The differentiable Feasibility Pump

11:00–11:30 Coffee/Tea

11:30–12:00 Joaquim Gromicho – Predicting Willingness to Vaccinate While Optimizing Mobile Clinic Routes in Kenya

12:00–12:15 Steven Kelk - AI and proofs - things are moving quickly

12:15–12:30 Yukihiro Murakami – Open problem: Learning methods for graph burning

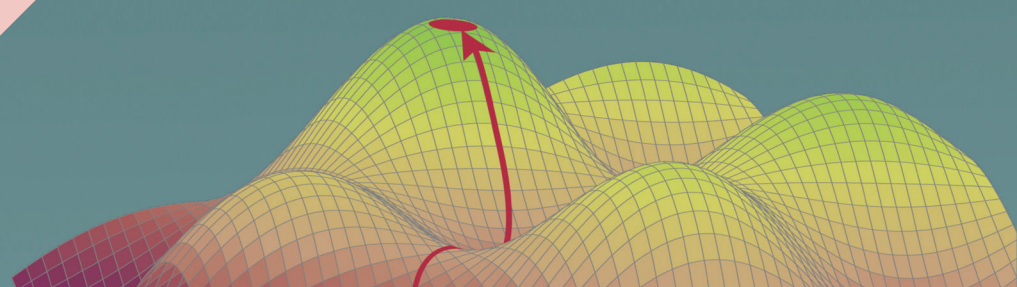
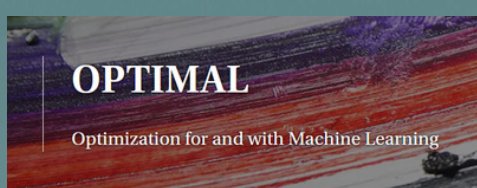
12:30–13:30 Lunch

13:30–15:00 Open problems / discussion / collaboration

15:00–15:30 Coffee/Tea

15:30–16:30 Çağıl Koçyiğit – Integrating Machine Learning and Optimization for Efficient, Fair, and Interpretable Allocation of Scarce Resources

19:00–22:30 Social dinner (De Kop van Oost)



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PROGRAMME - WEDNESDAY 5 NOV 2025

09:50–10:00 Coffee/Tea

10:00–11:00 Francis Bach – Denoising diffusion models without diffusions

11:00–11:30 Coffee/Tea

11:30–12:00 Leo van Iersel – Reconstructing phylogenetic networks by combining cherry picking and machine learning

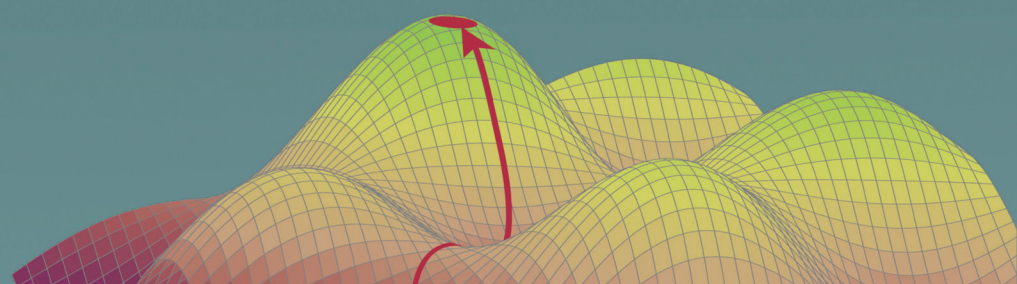
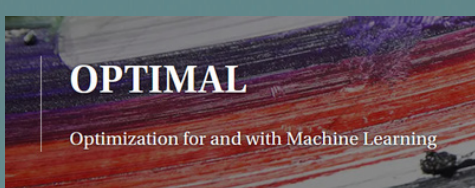
12:00–12:30 Lennart Kauter – On the Approximability of Train Routing and the Min-Max Disjoint Paths Problem

12:30–13:30 Lunch

13:30–15:00 Open problems / discussion / collaboration

15:00–15:30 Coffee/Tea

15:30–16:30 Bart van Parys – Optimal Decisions with Messy Data and Uncertainty



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PROGRAMME - THURSDAY 6 NOV 2025

09:50–10:00 Coffee/Tea

10:00–11:00 Marleen Balvert – Uncovering the genetic causes of diseases using machine learning and optimization

11:00–11:30 Coffee/Tea

11:30–12:00 Ilker Birbil – Towards Explainable Optimization: Current Research and Open Problems

12:00–12:30 Lunch takeaway

