



# Stockholm Optimization Days 2022

June 16-17, 2022

## P R O G R A M

Division of Optimization and Systems Theory  
Department of Mathematics  
KTH Royal Institute of Technology  
Stockholm, Sweden  
<http://www.kth.se/math/optsys/>

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## Conference Site

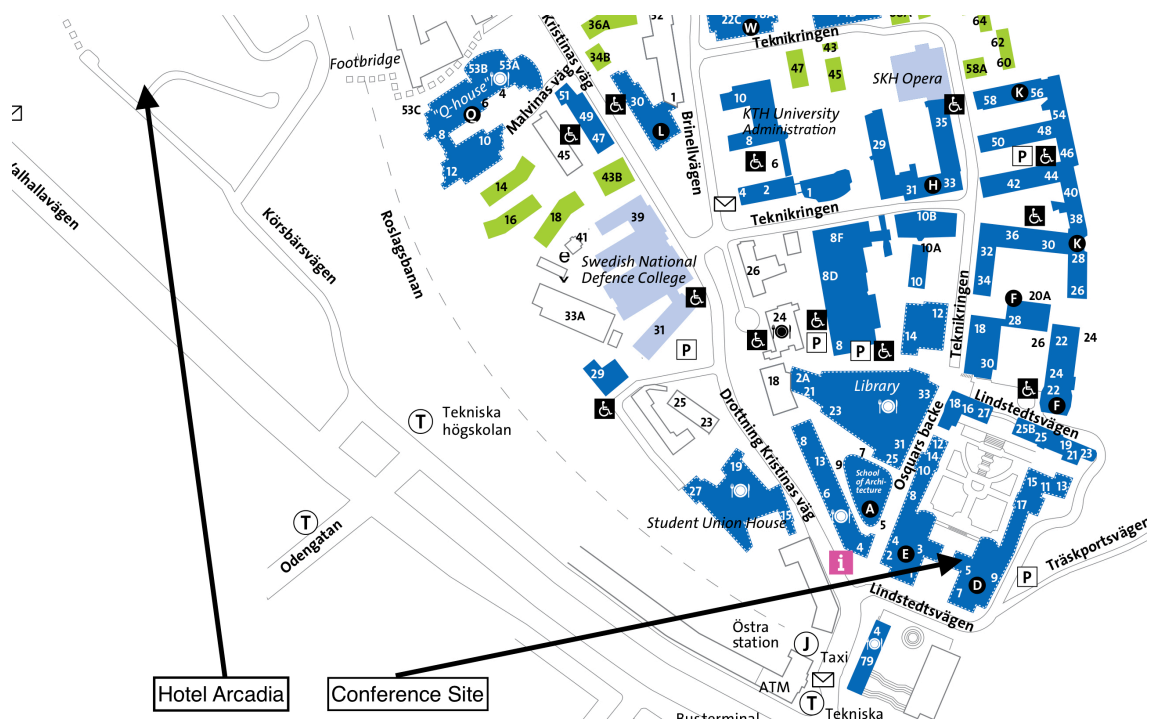
The conference will be held at KTH Royal Institute of Technology, which is situated in the north-east end of the inner city of Stockholm. It is easy to reach it by subway—take line 24 towards Mörby Centrum and get off at station Tekniska Högskolan. From the subway platform, follow the signs to Tekniska Högskolan. Once you reach KTH, signs will show you the way to the conference site. The street address is Lindstedtsvägen 5, rooms D1 (plenary talks), D2 (session A) and D3 (session B).

## Registration

In the morning of the first day we have set aside time to administrative details between 8.00 and 8.45. We kindly ask all attendees to register at this time at the “registration desk” in order to receive program and name tag.

## Organizing Committee

Jan Kronqvist (head)  
Per Enqvist  
Anders Forsgren



## Schedule, Thursday June 16, 2022

8.45– 9.00	Opening Remarks	
9.00– 9.30	<b>Ambros Gleixner*</b> <i>Verified inequalities for exact mixed integer optimization over the rational numbers</i>	
9.30–10.00	<b>Ann-Brith Strömberg*</b> <i>Lagrangian dual methods for the evaluation of multi-object tracking algorithms formulated as a sequentially connected 2D assignment model</i>	
10.00–10.30	C o f f e e B r e a k	
	<b>Session A</b>	<b>Session B</b>
10.30–10.55	<b>Julian Hall</b> <i>The HiGHS solver</i>	<b>Alberto De Marchi</b> <i>Constrained Structured Optimization and Augmented Lagrangian Proximal Methods</i>
10.55–11.20	<b>Leo Warnow</b> <i>Approximating the nondominated set of multi-objective mixed-integer optimization problems by hybrid patch decomposition</i>	<b>Christian Biefel</b> <i>Affinely Adjustable Robust Linear Complementarity Problems</i>
11.20–11.45	<b>Lucas Létocart</b> <i>Matrix generation and mining for diamonds for binary quadratically constrained quadratic problems</i>	<b>Arijit De</b> <i>Optimization Model for Environmental Conscious Salmon Supply Chain Network</i>
11.45–12.10	<b>Erling D. Andersen</b> <i>New features in Mosek version 10</i>	<b>Caroline Granfeldt</b> <i>Long-term investment optimization models for large-scale integration of wind and solar power in Europe</i>
12.10–13.30	L u n c h B r e a k	
13.30–14.00	<b>Claudia D’Ambrosio*</b> <i>Tactical Deconfliction in Urban Air Mobility via Mathematical Optimization</i>	
14.00–14.30	<b>Elna Rönnberg*</b> <i>Integer programming column generation: Accelerating branch-and-price using a novel pricing scheme for finding high-quality solutions in set covering, packing, and partitioning problems</i>	
14.30–15.15	Industry session	
15.15–16.30	Poster session	

\*Invited speaker.

## Schedule, Friday June 17, 2022

9.00– 9.30	<b>Joey Huchette*</b> <i>Neural Network Verification As Piecewise Linear Optimization</i>	
9.30–10.00	<b>Pontus Giselsson*</b> <i>Tight Lyapunov function existence analysis for first-order methods</i>	
10.00–10.30	C o f f e e B r e a k	
	<b>Session A</b>	<b>Session B</b>
10.30–10.55	<b>Nils-Hassan Quttineh</b> <i>Approximating the Pareto frontier for a challenging real-world bi-objective covering problem</i>	<b>Melanie Weber</b> <i>Constrained optimization on manifolds</i>
10.55–11.20	<b>Calvin Tsay</b> <i>OMLT: Optimization and Machine Learning Toolkit</i>	<b>Kaj Holmberg</b> <i>Optimizing mandate allocation after democratic elections</i>
11.20–11.45	<b>Peter Maxwell</b> <i>An aggressive path-following strategy for parametric mathematical programs with complementarity constraints (PMPCCs).</i>	<b>Andreas Lundell</b> <i>The SHOT MINLP solver</i>
11.45–12.10	<b>Emil Karlsson</b> <i>A Partial Assignment Acceleration Technique for Logic-Based Benders Decomposition</i>	<b>Tobias Achterberg</b> <i>Nonconvex MIQCP in Gurobi</i>
12.10–13.30	L u n c h B r e a k	
13.30–14.00	<b>Robert Weismantel*</b> <i>LP and IP over time</i>	
14.00–14.30	<b>Thiago Serra*</b> <i>The Combinatorial Brain Surgeon: Pruning Weights That Cancel One Another in Neural Networks</i>	
14.30–15.00	C o f f e e B r e a k	
15.00–15.15	Awards	
15.15–15.45	<b>Stephen Boyd*</b> <i>Embedded Code Generation with CVXPY</i>	
15.45–16.00	Concluding Remarks	

\*Invited speaker.