

Optimization Workshop 2024

Universidad de los Andes

Monday, December 9th

Time	Event	Location
7:30 - 7:50 AM	Check-in	Building B - Room 202
7:50 - 8:00 AM	Opening	
8:00 - 10:00 AM	Mateo Díaz: Introduction to Continuous Optimization	
	MINICOURSE	
10:00 - 10:30 AM	Coffee Break	
10:30 - 12:30	Justin Goodson: Stochastic Dynamic Programming	
	MINICOURSE	
12:30 - 2:00PM	Lunch Break	
2:00 - 4:00 PM	José Walteros: Introduction to Integer Optimization	
	MINICOURSE	
4:00 - 4:30 PM	Coffee Break	Building B - Room 202
4:30 AM - 5:30 PM	Panel: Applying to Grad School and Life in Academia	

Tuesday, December 10th

Time	Event	Location
8:00 - 8:30 AM	Check-in	Building B - Room 202
8:30 - 9:00 AM	Welcome Remarks	
9:00 - 10:00 AM	Claudia Sagastizábal: Industrial Mathematics in Action: Full Wave Inversion	
	KEYNOTE	
10:00 - 10:30 AM	Coffee Break	
10:30 - 11:10 AM	Computational Optimization at Google	
	Daniel Duque	
11:10 - 11:50 AM	The Role of Level-Set Geometry on the Performance of PDHG for Conic Convex Optimization	
	Robert Freund	
11:50 AM - 1:30 PM	Lunch Break	
1:30 - 2:10 PM	Data-driven bilevel optimization for inverse problems	Building SD 7th Floor
	Juan Carlos De los Reyes	
2:10 - 2:50 PM	Decision Diagram based approaches for discrete bilevel programming	
	Leonardo Lozano	
2:50 - 3:20 PM	Coffee Break	
3:20 - 4:00 PM	A Parametric Approach for Solving Convex Quadratic Optimization with Indicators Over Trees	Building SD 7th Floor
	Salar Fattahi	
4:00 - 6:00 PM	Posters / Cocktail	

Wednesday, December 11th

Time	Event	Location
8:30 - 9:00 AM	Check-in	Building B - Room 202
9:00 - 10:00 AM	Stephen Wright: Revisiting Inexact Fixed-Point Iterations for Min-Max Problems: Stochasticity and Structured Nonconvexity	
10:00 - 10:30 AM	Coffee Break	
10:30 - 11:10 AM	TBD	
11:10 - 11:50 AM	Proximal Splitting Methods Through the Lenses of Moreau-type Envelopes	
11:50 AM - 1:30 PM	Lunch Break	
1:30 - 2:10 PM	Rounding the Lovász Theta Function with a Value Function Approximation	
2:10 - 2:50 PM	Non-SOS Polynomial Optimization via a Lifting procedure	
2:50 - 3:20 PM	Coffee Break	
3:20 - 4:00 PM	Partially Adaptive Multistage Stochastic Programming with Formulations, Algorithms, and Applications	
4:00 - 4:40 PM	A tractable algorithm, based on optimal transport, for computing adversarial training lower bounds	
4:40 - 6:00 PM	Adjourn	
6:00 - 8:00 PM	Dinner	Origen Bistro

Thursday, December 12th

Time	Event	Location
8:30 - 9:00 AM	Check-in	Building B - Room 202
9:00 - 10:00 AM	Simge Küçükyavuz: Convex Mixed-Integer Optimization for Causal Discovery	
10:00 - 10:30 AM	Coffee Break	
10:30 - 11:10 AM	Contextualizing, Fast and Slow	
11:10 - 11:50 AM	Problem-based clustering and opportunity cost matrices in stochastic programming	
11:50 AM - 1:30 PM	Lunch Break	
1:30 - 2:10 PM	Non-Convex Semi-Infinite Programming: From discretization to local reduction methods	
2:10 - 2:50 PM	Some ideas for convex optimization using quantum computers	
2:50 - 3:20 PM	Coffee Break	
3:20 - 4:00 PM	Other ideas to leveraging quantum computing for discrete optimization	
4:00 - 4:40 PM	Beyond worst-case convergence guarantees: A framework for predicting the behavior of complex iterative algorithms with random data	

Friday, December 13th

Time	Event	Location	
8:30 - 9:00 AM	Check-in	Building B - Room 202	
9:00 - 10:00 AM	Andrés Medaglia: Leveraging shortest-path structures for engineering solutions		KEYNOTE
10:00 - 10:30 AM	Coffee Break		
10:30 - 11:10 AM	Outlier Robustness via Partial Optimal Transport		Soroosh Shafiee
11:10 - 11:50 AM	Adversarial robustness for stochastic programs through decision-dependent ambiguity sets		Mauricio Junca
11:50 AM - 1:30 PM	Lunch Break		
1:30 - 2:10 PM	Projection onto Cones Generated by Epigraphs of Perspective Functions		Luis Briceño Arias
2:10 - 2:50 PM	TBD		Andres Gomez
2:50 - 3:10 PM	Closing remarks		
3:10 - 3:40 PM	Good Bye Coffee		