



COSMO – Stochastic Mine Planning Laboratory **Mining Engineering**

TRAVELLING TECHNICAL DAY PROGRAM

December 5th, 2025

In person: Delta Hotel: Parkdale Room

75 Lower Simcoe St, Toronto, ON M5J 3A6

9:00	<i>Roussos Dimitrakopoulos - Welcome and Update on New Developments</i>
9:15-9:45	A Constraint Programming Model for Robust Short-Term Planning in Underground Mines <i>Michel Gamache - Polytechnique Montréal</i>
9:45 – 10:15	Integrating Planning Horizons and Capital Investments with Multi-Level Stochastic Optimization and Reinforcement Learning <i>Liam Findlay</i>
10:15 – 10:45	A Joint Approach to the Implementation of Fleet Management Systems with Stochastic Short- Term Production Scheduling in Open Pit Mines <i>Lee Zamalloa</i>
10:45 – 11:15	End-to-end Learning for Mining Complexes Optimization <i>Lidiia Shchichko</i>
11:15 – 11:30	<i>Break - Followed by Industry Applications of Simultaneous Stochastic Optimization</i>
11:30 – 12:00	Application of Stochastic Planning and Uncertainty Management in a Base Metals Operational Environment <i>Mario De Freitas Silva – Vale Base Metals</i>
12:00 – 12:30	Applying the Simultaneous Stochastic Optimization Approach for the Evaluation of an Iron Ore Mining Project <i>João Pedro de Carvalho – Vale SA</i>
12:30 – 13:00	Simultaneous Stochastic LOM Optimization at a Low-Grade Iron Ore Mining Complex <i>Laura Carelos Andrade and Benny Cohen - KPI</i>
13:00 – 14:00	<i>Lunch</i>
14:00– 14:30	Simultaneous Stochastic Optimization: Integrating Waste Encapsulation, Progressive Reclamation, and Haulage Management <i>Victor Guimaraes</i>
14:30 – 15:00	High-Order Simulation of Categorical Geology Domains and Continuous Gold Variables - A Case Study of Awonsu Gold Deposit <i>Fred Appiah</i>
15:00 – 15:30	A Generative Approach for Stochastic Simulation Based on Restricted Boltzmann Machine <i>Yanyan Mu</i>
15:30– 15:45	<i>Break</i>
15:45 – 16:15	Joint Fleet Management and Stochastic Mine Planning with Carbon Footprint Reduction <i>Victor Balboa Espinoza</i>
16:15 – 16:45	Advancing the Large-Scale Joint Stochastic Optimization of Stope Design and Long-Term Production Scheduling for Underground Mines using GRASP <i>Angus MacRae</i>
16:45 – 17:15	Simultaneous Stochastic Optimization of Mining Complexes: Balancing Investments in Renewable Energy Systems and Local Community Development <i>Ibrahim Cetin</i>
17:15	<i>Closing Remarks: Research in the Year Ahead</i>

Virtual: Microsoft Team Meeting