

# ICBO 2026 - Talks by Day

Author(s) and title for each scheduled talk, grouped by day

## Day 1

### SESSION 1: BO with Multi-Follower (4 Talks)

Author(s)	Title
Hori, Atsushi; Okuno, Takayuki; Fukuda, Ellen H.	Utilization of the Regularized Nikaido-Isoda Function for Multi-Leader-Follower Games Beyond Followers' Convexity
Svensson, Anton; Salas, David	Existence of solutions for deterministic bilevel games under a general Bayesian approach
Ebrahimi, Mohammadjavad; Shanbhag, Uday V.; Yousefian, Farzad	On the Resolution of Stochastic MPECs over Networks: Distributed Implicit Zeroth-Order Gradient Tracking Methods
Flocco, Dominic; Gabriel, Steve; Schiewe, Philine	A Nested Benders Decomposition Framework for Multi-Follower Bilevel Optimization

### SESSION 2: Tri-level Optimization (4 Talks)

Author(s)	Title
Chen, Shuyi; Zhu, Shixiang; Sioshansi, Ramteen	Large-Scale Resilience Planning for Wildfire-Prone Electricity-System via Adaptive Robust Optimization
Gu, Wei; Chen, Shuyi; Zhu, Shixiang; Sioshansi, Ramteen	Multistage Adaptive Robust Optimization for Irreversible Long-term Resilience Planning
Titus, William; Lunday, Brian; Robbins, Matthew; Hopkinson, Kenneth	The Network Fortification Problem for Evacuation Operations
Choi, Yeonjun; Zeng, Bo; Lee, Kangbok	Exact Algorithms for Robust Container Pre-Marshalling and Relocation under Retrieval-Priority Uncertainty

### SESSION 3: Electricity+BO (4 Talks)

Author(s)	Title
Chen, Yize	Learning-Augmented Stackelberg Games for Scalable Demand Response in Electricity Markets
Cai, Chengyi; Zhang, Peter; Zhu, Woody	Two-Stage Stochastic Optimization for Reliable and Grid-Compatible Expansion of AI Data Centers
Bulaich Mehamdi, Abdellah; van Ackooij, Wim; Brotcorne, Luce; Gaubert, Stéphane; Jacquet, Quentin	Electricity Pricing: A Bilevel Programming Approach for Time-of-Use Pricing and Flexible Consumers
Rojo, Luis; Anjos, Miguel F.; Brotcorne, Luce; Gendreau, Michel	The Charging Facility Location-and-Operation Problem

### SESSION 4: BO Solver+Instances (3 Talks)

Author(s)	Title
Thürauf, Johannes; Kleinert, Thomas; Ljubić, Ivana; Ralphs, Ted; Schmidt, Martin	BOBILib: Bilevel Optimization (Benchmark) Instance Library
Ashraf, Mahmoud; Lamperski, Jourdain; Prokopyev, Oleg	Generalizing single-level relaxations for bilevel linear programs
Bolusani, Suresh; Battista, Federico; Ralphs, Ted	GUMBO: A Software Framework for Generalized Benders' Decomposition of Mixed-Integer Bilevel and Two-Stage Stochastic Optimization

**SESSION 5: Non-linear BO (4 Talks)**

Author(s)	Title
Song, Zitao; Padmanabhan, Swati; Zhang, Zhe	Goldstein Piecewise Smooth Exploration for Linearly Constrained Bilevel Optimization
DEY, SOUMITRA	A New Class of Convex Functions and Characterizations
Sharifi, Sina; Yazdandoost Hamedani, Erfan; Fazlyab, Mahyar	Sequential QCQP for Bilevel Optimization with Line Search
Ju, Jiachen; Zeng, Bo; Zeng, Shangzhi; Zhang, Jin	Solving A Discrete Bilevel Healthcare Facility Location Problem via Submodular Maximization and Branch-and-Cut

**SESSION 6: BO Location Problems (4 Talks)**

Author(s)	Title
Whitehead, Nathan	Network Interdiction of Disaster Response for Rapid Distribution and Maximal Covering of Demands
Saleem, Owais; Suchan, Tim; Schulz, Volker; Welker, Kathrin	OPTIMAL CONTINUOUS-DOMAIN SENSOR PLACEMENT FOR VIBRATION-BASED PARAMETER IDENTIFICATION
Salazar Gonzalez, Juan Jose	A bilevel approach for a fair multi-source capacitated facility location problem
Soto-Vergel, Angelo; Walteros, Jose; Ramirez-Rios, Diana; Borrero, Juan	A Bilevel Stochastic Optimization Framework for Strategic Deployment of Survivor Geolocation Systems and Rescue Teams in Post-Disaster Operation

**SESSION 7: Uncertainty+BO I (3 Talks)**

Author(s)	Title
Soufiani, Elham; Pirnia, Mehrdad	Strategic Regional Aviation Electrification under Uncertainty: A Bilevel Optimization Approach
Cotrina, John; Flores, Gonzalo; Salas, David; Svensson, Anton	Stability of expectation with decision-dependent uncertainty over moving sets
Vasquez, Sebastian; Bodur, Merve; Pagnoncelli, Bernardo	Bridging Stochastic and Bilevel Optimization: A Unified Framework for Hierarchical Decisions under Uncertainty

**SESSION 8: Learning+BO I (3 Talks)**

Author(s)	Title
Zhou, Wenbin; Orfanoudaki, Agni; Zhu, Shixiang	Conformalized Decision Risk Assessment
Wu, Guanting; Zhang, Peter	Learning from Experts under Decision Coupling: An Application to Robust Disaster Response
Holani, Anurag; Gupta, Rishabh; Zhang, Qi	An inverse mixed-integer optimization framework for learning interpretable models of expert decision-making

**SESSION 9: Equilibrium in BO (3 Talks)**

Author(s)	Title
Gautam, Pankaj	Forward-backward-forward dynamics for bilevel equilibrium problem
Lin, Yen-Cherng	Set Equilibrium Problems with Bilevel Structures
Zhu, Quanyan	Bilevel Cooperative Dynamics and Punctuated Equilibrium: From Tactical Consensus to Strategic Coalition Formation

## Day 2

### SESSION 10: Bilevel MIP (4 Talks)

Author(s)	Title
Machado Pacheco, Bruno; Carvalho, Margarida; Yu, Kim	Valid Inequalities for Binary Bilevel Problems with Lower-Level Graph Reformulations
Feleke, Flagot; Kassa, Semu	Exact Solution Approach for Bi-level Mixed Integer Linear Fractional Programming Problems and its application in Sustainable Supply Chain for Agricultural Products
Vasquez, Sebastian; van Hoeve, Willem-Jan; Lozano, Leonardo	Network Flow-based Cuts for Binary Linear Bilevel Optimization
Almeida Silva, Warley; Carvalho, Margarida; Jena, Sanjay Dominik	Stackelberg Dynamic Location Planning under Cumulative Demand

### SESSION 11: Uncertainty+BO II (4 Talks)

Author(s)	Title
Sinha, Ankur	Bilevel Optimization under Uncertainty: Applications in Network Interdiction
Tian, Yiqi; Zeng, Bo	A Computational Study on Distributionally Robust Optimization
Thürauf, Johannes; Lefebvre, Henri	Robust Bilevel Optimization with a Wait-and-See Follower: A Column-and-Constraint Generation Approach
Beck, Yasmine; Ljubić, Ivana; Yan, Wenjin	Robust Combinatorial Optimization with Decision-Dependent Budget Uncertainty

### SESSION 12: BO New Applications (4 Talks)

Author(s)	Title
Yu, Xinyue; Liu, Shaonan; Yih, Yuehwern; Kong, Nan	Government Subsidy Optimization for Redesigning Mutually Disjoint for-Profit Service Networks - A Single-Leader Multi-Follower Bilevel Programming Approach
Zhu, Xiaoyue; Adulyasak, Yossiri; Xia, Wenyi	Joint Pricing and Capacity Investment Problem for Coopetitive Port Authorities
Khalil, Nathalie; Chertovskikh, Roman; Sousa, Luis	Bilevel Optimization for Smart Irrigation Control: A Framework for Enhancing Water-Use Efficiency in Agriculture
Sahu, Rishabh	When Priority Fails: A Bilevel Framework for Resolving Passenger-Freight Conflicts in Indian Railways

### SESSION 13: Uncertainty+BO III (4 Talks)

Author(s)	Title
Hao, Hao; Brennan, Mark; Zhang, Peter	Protecting Senegal's Road Network Against Flood Risk and Policy Uncertainty
Sahu, Vishnu; Zhang, Qi	Robust sequential bilevel programming with unknown follower's objective
Perez Tezoco, Jaime; Borrero, Juan S.; Lozano, Leonardo	A Bilevel Optimization Approach for a Class of Combinatorial Problems with Correlated Disruptions and Probing
Xie, Yu; Ralphs, Ted K; Prokopyev, Oleg	Robustness and Bounded Rationality in Mixed Integer Bilevel Linear Optimization

**SESSION 14: BO in Service Systems (4 Talks)**

Author(s)	Title
Deng, Haoyun; Wei, Peng; Xie, Weijun	Bilevel Risk-Averse Routing and Resource Allocation for Urban Air Mobility
Miao, Yidi; Han, Eojin; Zhang, Peter	Joint Spatial Partitioning and Dispatch via Bilevel Optimization for Last-Mile Delivery
Sapirstein, Abel	MOMS: A Model for Optimizing Maternal Systems of Risk-Appropriate Care
Song, Mingyao	Bi-Level Predict-then-Optimize for Contract Interactions in Livestream Shopping

**SESSION 15: BO and Inverse Optimization (4 Talks)**

Author(s)	Title
Ley, Eva; Merkert, Maximilian	On Integral Inverse Optimization Problems
Nadi, Sina; Lee, Taewoo; Prokopyev, Oleg A.	On the inverse optimal value problem for a class of bilevel linear programs
Seidel, Tobias	Solving inverse robust optimization problems with bilevel-accelerated adaptive discretization methods
Ota, Matheus; Vasquez, Sebastian	A Geometric Perspective on Inverse Combinatorial Optimization via Adjacency

**SESSION 16: BO and AI Systems (3 Talks)**

Author(s)	Title
Dumouchelle, Justin; Julien, Esther; Kurtz, Jannis; Khalil, Elias	Neur2BiLO: Neural Bilevel Optimization
Zhu, Quanyan	Generative LLM Signaling Games: Censorship Evasion, Semantic Blindness, and Awareness Shaping
Garee, Isaac; Giovannelli, Tommaso	A stochastic algorithm for bilevel optimization with a mixed-integer upper-level problem and applications to neural architecture search

**SESSION 17: Learning+BO II (3 Talks)**

Author(s)	Title
Zhao, Tongke; Ghadimi, Saeed; Wolkowicz, Henry	Preconditioned Bilevel Optimization
Elrefaei, Jessica; Hua, Kaixun; Tran, Hoang; Borrero, Juan	Graph4BiLO: Graph-Based Value Function Approximation for Bilevel Optimization
Zhang, Yilang; Li, Bingcong; Giannakis, Georgios B.	Learnable Loss Geometries with Mirror Descent for Scalable and Convergent Meta-Learning

**SESSION 18: BO and Power Systems (3 Talks)**

Author(s)	Title
Nguyen, Dai Nam; Bhuiyan, Tanveer; Zeng, Bo; Chen, Yang	A Stochastic Game-Theoretic Optimization Approach for Managing Coupled Local Electricity and Thermal Markets with Electric Vehicles and Renewable Sources
Andrew, Mastin	A Formulation for Power Flow Interdiction with Bounded Big-M Values
Kazi, Saif; Sundar, Kaarthik	On the Choice of Single-Level Reformulations for Bilevel Optimization in Optimal Power Flow Networks

## Day 3

### SESSION 19: Learning+BO III (4 Talks)

Author(s)	Title
Chen, Lesi	First-Order Bilevel Optimization: Computability, Lower Bounds, and Near-Optimal Algorithms
Chen, Lisha	Optimization over the Pareto set beyond convex objectives
Vo, Dung; Tran, Dat; Khanduri, Prashant	Bilevel Optimization under Non-Convex Non-Smooth Settings
Ji, Kaiyi	Lower Complexity Bounds for Nonconvex-Strongly-Convex Bilevel Optimization with First-Order Oracles

### SESSION 20: Uncertainty+BO IV (4 Talks)

Author(s)	Title
Hao, Hao; Zhang, Peter	Robust Paths: Geometry and Computation
Bienstock, Daniel; Sisson, Blake	Derisking solutions to optimization problems
Beck, Yasmine; Büsing, Christina; Ljubic, Ivana	Exact Methods for Solving k-Delete Recoverable Robust 0-1 Problems Under Budgeted Uncertainty
Liu, Suri; Zhang, Yiling; Basciftci, Beste; Wang, Wen Yuan	Stochastic Bilevel Optimization for the Network Design of Multimodal Transit Systems

### SESSION 21: Interdiction and Min-Max Problems (4 Talks)

Author(s)	Title
Huntington, Rie; Zeng, Bo	Bilevel Mixed-Integer Interdiction of the Shortest Path Problem
Truong, Tran Mai Anh; Lozano, Leonardo; Sefair, Jorge A.	Network Interdiction with General Integer Variables
Dadpour, Amir; Fukasawa, Ricardo; Weninger, Noah	Improved Algorithms for Shortest-Path Network Interdiction
Zhou, Bo; Jiang, Ruiwei; Shen, Siqian	Submodularity and Supermodularity in Min-Cost Flow Interdiction

### SESSION 22: Randomized Method and in BO (3 Talks)

Author(s)	Title
Zemkoho, Alain	True single-level reformulation for pessimistic bilevel optimization
Clemente, Eneko	Dimensionality Reduction in Bilevel Linear Programming
Singh, Vinay	Optimality Conditions for Nondifferentiable Interval-Valued Bilevel Optimization Problems via Tangential Subdifferentials

### SESSION 23: Learning+BO IV (3 Talks)

Author(s)	Title
Arango Marin, Jaime; Bustamante Gutierrez, Lina Clemencia; Sierra Narvaez, Francisco Javier	Advanced time series modeling for forecasting imbalances in maritime transport using bi-level optimization
Bohne, Jason; Rosenberg, David; Kazantsev, Gary; Polak, Pawel	Bregman Geometry for Stochastic Online Bilevel Optimization
Manimangalam, Praveen	A Bilevel Optimization Framework for Self-Configuring Agentic CRM Architectures in Small-Scale Retail Enterprises

**SESSION 24: Structural and Multiobjective Perspectives in BO (3 Talks)**

Author(s)	Title
Sheldon, Andrew; Lunday, Brian; Caballero, William	The Location Set Covering Disruption Problem
Ralphs, Ted; Fallah, Samira; Battista, Federico	The Relationship Between Bilevel Optimization and Multiobjective Optimization
Weninger, Noah; Fukasawa, Ricardo	General framework for relaxing some Stackelberg zero-sum games