



**14th International Conference on Logistics and Maritime
Systems**
Jointly organized with
**EUROMar Conference on Maritime Optimization and
Logistics**

Universitat Pompeu Fabra, Barcelona
July 7-10, 2026

CONFERENCE PROGRAM

Version June 9, 2026

For talks indicated with an asterisk (*), you can check a Springer LNCS paper available during the conference, whereas for the other talks, you can check the Book of Abstracts

Conference schedule at a glance

Tuesday, July 7, 2026			
09:00-17:00	Pre-conference		
17:00-18:00	Registration		
18:00-20:00	Welcome reception		
Wednesday, July 8, 2026			
08:30-09:30	Registration		
09:30-10:00	Welcome session		
10:00-11:30	Intermodal & Hinterland Logistics	Container Storage, Stacking & Yard Operations	Smart Ports & Digital Platforms
10:00-11:30	Secure, Sustainable, and Resilient Maritime Supply Chains Special Session		
11:30-12:00	Coffee break & group photo		
12:00-13:30	Industry Session	Berth Allocation & Port Planning	Maritime Shipping Network & Linear Operations
13:30-14:30	Lunch		
14:30-16:00	Optimization Methods, OR & AI	Urban, Last-Mile & Collaborative Logistics	Terminal Operations: Cranes, AGVs & Dispatching
16:00-16:30	Coffee break		
16:30-18:00	Inland, Intermodal & Automated Transport	Sustainable Maritime Logistics & Maritime Analytics	Risk, Security, Resilience & Energy-Aware Operations
Thursday, July 9, 2026			
08:00-09:00	Registration		
09:00-10:00	Keynote: Berit Dangaard Brouer		
10:00-11:30	Special Session EUROMar EWG	Vessel Routing & Speed Optimization	Green Ports & Energy Systems
11:30-12:00	Coffee break		
12:00-13:30	Stowage, Relocation & Container Planning	Autonomous & Smart Terminal Systems	Fleet Planning, Renewal & Pricing
13:30-14:30	Lunch		
14:30-16:00	Green Shipping Corridors, Policy & Governance	Environmental Sustainability & Emissions Forecasting	Emerging Maritime Technologies
16:00-16:30	Coffee break		
16:30-17:30	Keynote: Stefan Voß		
17:30-18:00	Closing Session		
20:00-22:00	Conference dinner		
Friday, July 10, 2026			
09:00-13:00	Technical visit to the Port of Barcelona		

Tuesday, July 7, 2026

09:00-17:00 Pre-conference (Room 40.039)

17:00-18:00 Registration

18:00-20:00 Welcome reception

Wednesday, July 8, 2026

08:30-09:30 Registration

09:30-10:00 Welcome session (Auditorium)

10:00-11:30 Secure, Sustainable, and Resilient Maritime Supply Chains Special Session (Room 20.287)

Chair: Sungjin Kim

Joint Dispatching and Opportunity Charging for AGVs via Hierarchical MARL. Jiyeon Lee, Serena Strazzullo, Ilkyeong Moon

Energy Demand in Inland Waterway Transport under Hydrodynamic Variability on the Rhine*. Maryam Pourbeirami Hir, Floor P. Bakker, Alex Kirichek, Fedor Baart, Mark van Koningsveld

Port Performance and Connectivity Index Modelling for Impact Evaluation of Maritime Shipping Disruptions. Li Shuning

Global Maritime Energy Transition and the Transformation of Port and Logistics Energy Systems. Kang-Ki Lee

10:00-11:30 Parallel sessions

Intermodal & Hinterland Logistics (Room 40.010) <i>Chair: Fengfeng Xie</i>	Container Storage, Stacking & Yard Operations (Room 40.012) <i>Chair: Sebastián Muñoz-Herrera</i>	Smart Ports & Digital Platforms (Room 40.113) <i>Chair: Chiara Saragani</i>
Shaping Hinterland Modal Shift Under Decentralized LSP Decision-Making: A Two-Stage Planning Model for Port Authorities. B. Orkun Tunay, Pieter L. van den Berg, Rob Zuidwijk	Simulation-Based Analysis of Foldable Container Operations in Inland Container Depot Efficiency. Hikaru Takashima, Koichi Shintani, Ken'ichi Nagaiwa, Etsuko Nishimura	Data platforms in the maritime domain: Challenges and opportunities*. Anisa Rizvanolli, Olaf Rendel
Cross-border logistics strategy in fresh produce supply chain under sea freight disruption and spoilage risks. Fengfeng Xie	Heterogeneity-aware container storage strategies: adaptive feature embedding via KDE-CDF mapping and optimization.* Haoqi Xie, Daniela Ambrosino	Networked Cameras for Real-Time Crowd Monitoring and Short-Horizon Forecasting: A Case Study in Barcelona Port City Waterfront. Chiara Saragani, Josep Anton Sánchez, Jamie Arjona, Pedro Delicado, Javier Garrido, Sergi Saurí
Optimizing Intermodal Transport Networks by means of Quantum Computing. Anisa Rizvanolli, Felix Westerkamp, Solveig Plomer, Daniel Ohl de Mello, Richard Lopp, Oliver Szal, Ayse Kotil, Marcel Schindler, Alessandro Tarantola, Ibraheem O. Adeniran, Carina Kehrt	Power Flexible Scheduling of Quay Cranes and Automated Guided Vehicles in Container Terminals.* S. Mahdi Homayouni	Enhancing Port Efficiency through Data-Driven Estimation of Vessel Departure and Service Time. Chiara Saragani, Xiao Zhe, Matteo Boschian Cuch, Ran Yan, Javier Garrido, Xiuju Fu, Sergi Saurí, Zheng Qin
AI-based delay estimation for freight trains. *Chhandosee Bhattacharya, Anisa Rizvanolli, Maximilian Reimann, Ole John	Rethinking Container Dwell Time Drivers. Sebastián Muñoz-Herrera	

11:30-12:00 Coffee break and group photo

12:00-13:30 Industry session (Room 40.010)

Chair: Sara Hatami

Hexaly: a hybrid optimization solver. *Francesco Gallo, Hexaly*

Port strategy and innovation: A clash of interests? *Carles Rúa, Port of Barcelona*

PortCastelló: Innovation and energy transition strategy in a medium-sized industrial port. *Bernat Ibanyez Oliver, Port of Castello*

12:00-13:30 Parallel sessions

Berth Allocation & Port Planning (Room 40.012) Chair: Kok Choon Tan	Maritime Shipping Network & Linear Operations (Room 40.113) Chair: Celia Jiménez-Piqueras
A Bi-Level Simulation-Optimisation Strategy for Solving the Berth Allocation Problem in Non-Container Ports*. <i>Joseph Collins, Alexandru-Ciprian Zavoianu</i> Collaborative Optimization of Berth Allocation and Stockyard Selection in Coal Terminals: An Adaptive Hybrid Metaheuristic Approach under Weather Uncertainty*. <i>Yiheng Zhou, Qianli Ma, Zhihao Zhu, Baiyu Ma</i> Bi-Level Simulation-Optimisation Strategies for Solving the Berth Allocation Problem in Non-Container Ports. <i>Joseph Collins, Alexandru-Ciprian Zavoianu</i> Vessel Scheduling in a Multi-Berth Port with a One-Way Channel. <i>Keramat Hasani, Kok Choon Tan, Puay Guan Goh</i>	Analyzing Liner Competition and Policy Interventions to Mitigate Excess Emissions in Maritime Shipping. <i>Afshin Mansouri, Ozlem Ergun</i> Real-Time Container Slot Allocation in Liner Shipping. <i>Maxime Merle, Nabil Absi, Dominique Feillet</i> Container management in the Norwegian aluminium industry: A multi-commodity network flow approach.* <i>Lukas Georg Österlin Dalhaug, Tobias Schwabe Jortveit, Didrik Næss, Peter Schütz</i> Modeling and Benchmarking the Empty Container Repositioning Problem in Global Shipping Networks. <i>Celia Jiménez-Piqueras, Dario Pacino</i>

13:30-14:30 Lunch

14:30-16:00 Parallel sessions

Optimization Methods, OR & AI (Room 40.010) Chair: Josepha Michiko	Urban, Last-Mile & Collaborative Logistics (Room 40.012) Chair: Yu Wang	Terminal Operations: Cranes, AVGs & Dispatching (Room 40.113) Chair: Minsu Woo
A review of bilevel optimization in maritime and port logistics. <i>José-Fernando Camacho-Vallejo, Rosa G. González-Ramírez</i> A Tutorial on Reinforcement Learning for Maritime Logistics.* <i>Fabian Akkerman, Eduardo Lalla-Ruiz, Martijn Mes</i> Consistency of Fine-Tuned SLM Rankings Across Synthetic and Classical JSSP Instances. <i>Tio Dharmawan, Irvan Zidny, Tae-Sun Yu, Sungchul Choi</i> Retrieval-Augmented Code Adaptation for Automated Optimization Problem Solving: A Framework for Logistics and Operation Research. <i>Josepha Michiko Leo, Noah Lee, Yehoon Jang, Tae-Sun Yu, Sungchul Choi</i>	A Route Pooling Framework for the Mixed-Fleet Vehicle Routing Problem with Customer Preferences. <i>Justin Wittig, Christian Bierwirth</i> Enabling Joint Delivery in Crowdshipping through Variable Transfer Points. <i>Michel Jahns, Christian Bierwirth</i> Shared-Load Container Drayage with Battery Swapping.* <i>Marco Ochoa-Barnuevo, Fabian Akkerman, Eduardo Lalla-Ruiz, Frederik Schulte</i> Robust Optimization for Siting and Sizing of Electric Truck Charging Stations at Ports under Uncertain Demands. <i>Yu Wang, Huiying Lu, Chengji Liang, Yanjie Zhou, Houjun Lu</i>	Interpretable DDQN Rule Selection for Truck-Crane Dispatching in a High-Fidelity Port Simulation*. <i>Yihan Liu, Rauno Heikkilä</i> Assignment of Orders in Horizontal Transport at Sea-port Container Terminals.* <i>Simon Ilenburg, Florian Moehle, Svenja Witte, Hermann Loedding, Carlos Jahn.</i> Integrated Quay Crane and Automated Guided Vehicle Scheduling with Charging Decisions. <i>Yating Duan, Hongxiang Ren, Filipe Rodrigues</i> Neural Column Generation for Quay Crane Scheduling*. <i>Minsu Woo, Hyeonjeong Kim, Hoyoung Kim, Yanjie Zhou, Sung Won Cho</i>

16:00-16:30 Coffee break

16:30-18:00 Parallel sessions

Inland, Intermodal & Automated Transport (Room 40.010) <i>Chair: Xuan Qiu</i>	Sustainable Maritime Logistics & Maritime Analytics (Room 40.012) <i>Chair: Lisette Volu</i>	Risk, Security, Resilience & Energy-Aware Operations (Room 40.113) <i>Chair: Peter Bradl</i>
Mathematical formulations for the multi-station drone scheduling problem in shore-to-ship deliver*. <i>Jian Hu, Yantong Li</i> A new heuristic approach for a special case of Train Unloading Planning Problem. <i>Khawar Bashir</i> A Unmanned Aerial Vehicle Routing Problem with full coverage constraints. <i>Yantong Li, Qi Yang, Shanshan Zhou, Shuai Zhang</i> Tug-and-Barge Shuttle Service Pricing and Scheduling in Inland Waterway System. <i>Xuan Qiu, Gangyan Xu</i>	Selecting Alternative Fuel Transition Pathways in Green Shipping Corridors: A Multi-Stakeholder Multi-Objective Optimization Approach. <i>Sadaf Farboodi, Afshin Mansouri, Michael Bruhn Barfod</i> How does carbon Pricing Reallocate Emissions in Global Shipping?* <i>Pu Xinyue, Lin Xi, Jingyang Du, Bai Xiwen</i> Defining and Detecting Waiting Time in Maritime Traffic: An AIS Approach.* <i>Jonas Hedegaard, Julia Pahl</i> Delineation and Performance Analysis of Port Nautical Infrastructure Using Vessel AIS Data.* <i>Lisette Völu, Nadia Pourmohammad-Zia, Floor P. Bakker, Alex Kirichek, Mark van Koningsveld</i>	Integrated Scheduling of AGVs and Yard Cranes Considering Charging Decisions. <i>Yating Duan, Filipe Rodrigues, Hongxiang Ren</i> A Reproducible Rule-Based Pipeline for Detecting AIS Gaming and Contextualizing Maritime Incidents. <i>Xiongfei Lai, Syahirah Muyassarah Binte Aziz, Justin Hastings, Puay Guan Goh</i> A Benders Decomposition Approach for Acoustic-Constrained Maritime Patrol Scheduling*. <i>Nirvane Hmid, Mohammad Asghari, Hamid Afshari</i> Modelling the role of vessels in crisis management. <i>Melanie Reuter-Oppermann, Peter Bradl, Roland Fischer</i>

Thursday, July 9, 2026

08:00-09:00 Registration

09:00-10:00 Plenary talk (Room 40.S02)

Berit Dangaard Brouer The Golden Era of Decision Science: How Generative AI Bridges the Trust Gap <i>Chair: Sara Hatami</i> Decision science has been a foundational force since the Second World War, yet the community has struggled with a persistent branding failure and a black hole of observability. While deterministic white box models provide mathematically superior outcomes in critical global infrastructure, human operators often default to manual templates because they cannot easily interrogate the solution space. Generative AI fundamentally changes this dynamic by providing the vocal cords for our algorithms, allowing users to move from passive recipients of a result to active collaborators in the decision-making process. This shift is particularly transformative when addressing the human-tacit knowledge gap. A primary challenge in optimization is capturing the informal constraints, local desires, and standard operating procedures that humans hold but fail to formalize. By integrating generative interfaces with deterministic optimization, we can finally overcome these legacy obstacles. This synergy enables conversational observability, where users perform what-if scenarios on the fly and receive natural language explanations of complex trade-offs without requiring a decision or data scientist in the loop. The agentic tools available such as Claude Cowork and Codex extend this further into research practice. By learning from real operational data, they can generate statistically grounded synthetic instances that preserve the structural complexity of e.g. live maritime systems. This gives researchers a richer, reproducible testing surface and tightens the feedback loop between algorithmic research and the environments those algorithms serve. The accessibility of generative AI also raises a question the community must answer directly. A competent developer can now build a working scheduling tool in an afternoon, unaware that decades of rigorous research exist. Before they build something worse from scratch, how do we ensure they find our work, trust it, and use it?

10:00-11:30 Parallel sessions

Special Session EUROMar EWG (Room 40.008) <i>Chair: Dario Pacino & Eduardo Lalla</i>	Vessel Routing & Speed Optimization (Room 40.010) <i>Chair: Alessandro Hill</i>	Green Ports & Energy Systems (Room 40.012) <i>Chair: César Cerda Bollman</i>
Meeting of the Euro Working Group in Maritime and Port Logistics	S-EVO: Integrated Voyage–Stowage Optimization with Adaptive Fuel Switching under CII Constraints for PCTC Networks. <i>Jonghae Kim, Haeseong Kim, Seung Heon Oh</i> Vessel Speed Optimization for Maritime Decarbonization: A Reinforcement Learning Approach Under Dynamic Meteorological Conditions. <i>Qian Zhao, Arijit De, Richard Allmendinger</i> Optimized Itinerary Planning for LNG-Powered Cruise Ships. <i>Alessandro Hill</i>	Container Liner Fleet Planning under Fuel EU Maritime: Banking and Borrowing*. <i>Joseph Seong-Hyun Cho, Jasmine Siu Lee Lam</i> Digitalisation of Onshore Power Supply (OPS): A Data-Driven Management Tool for the Port of Barcelona.* <i>Guillem Bonilla Martin, Sara Hatami, Jesus Viscarri, Ana Arevalo</i> Service Configuration Design for Green Bunkering Capture at Transshipment Hubs: Sequencing Queue Management, SIMOPS, and Availability.* <i>Jiwon Lee, Joo-Won Lee</i> Chile as a Green Ammonia Supplier for Maritime Transport: A Cost-Optimized Assessment of Bunkering Infrastructure and Ammonia Demand. <i>César Cerda Bollmann, Frederic Babonneau, Pierre Cariou, Gabriel Fuentes, Tito Homem-de-Mello</i>

11:30-12:00 Coffee break

12:00-13:30 Parallel sessions

Stowage, Relocation & Container Planning (Room 40.008) <i>Chair: Tiziano Bacci</i>	Autonomous & Smart Terminal Systems (Room 40.010) <i>Chair: Weili Wang</i>	Fleet Planning, Renewal & Pricing (Room 40.012) <i>Chair: Michell Queiroz</i>
A Neural Combinatorial approach to the RoRo stowage planning problem. <i>Oliver Rise Thomsen, Dario Pacino</i> A Deep Reinforcement Learning-Driven ALNS Matheuristic for the RoRo Stowage Planning Problem. <i>Dario Pacino, Rasmus Høgh Gregersen, Kalle Leander Johansen</i> Proposal of a Strategic Berth Template Scheduling Model with Access Channel Constraints and Tidal Windows. <i>Julian Gonzalez Velasco, Jun Jose Bravo Bastidas, Juan Pablo Orejuela Cabrera, Carlos Alberto Rojas Trejos</i> An Exact MIP-Based Approach with Preprocessing for the Container Relocation Problem under Uncertainty. <i>Tiziano Bacci, Sara Mattia, Paolo Ventura</i>	Identifying Complexity Boundaries for Multi-Crane Scheduling with Preemption under Interference Constraints. <i>EunHyeok Ko, Taehee Kim, Dowon Kim, Tae-Sun Yu</i> Multi-Resolution Graph-Based Optimal Scheduling Methodology for Multi-Crane Systems. <i>이가경, Taehee Kim, Dowon Kim, Tae-Sun Yu</i> A Window-Level Scaling Framework for Image-Based Anomaly Detection in AGV Trajectories. <i>Junhyuk Seo, Jungcho Choo, Minseop Kim, Hanbyeol Park, Seonghan Kim, Hyerim Bae</i> Integrated scheduling and routing of autonomous trucks and human-driven trucks in mixed-traffic container terminals. <i>Weili Wang, Jiahui Hu, Yu Wang, Jiankun Hu</i>	Multistage Stochastic Strategic Tramp Fleet Renewal and Retrofit Problem with emission reduction. <i>Alberto Tamburini, David Pisinger</i> Fleet Routing for Hybrid Electric Aquaculture Service Vessels for Low-emission Operations. <i>Martin Augestad, Kjetil Fagerholt, Hans Tobias Slette</i> Matheuristic for a rich feeder network design problem. <i>Anandhu Dileep, Rahul Nath, Ahmad Hemmati, Mohammad Moshref-Javadi, Kjetil Fagerholt</i> Multi-Period Pricing for RoRo Short Sea Shipping Against Road Competition: A Stochastic Stackelberg Game Approach. <i>Michell Queiroz, Dario Pacino, Seyed Parsa Parvasi</i>

13:30-14:30 Lunch

14:30-16:00 Parallel sessions

Green Shipping Corridors, Policy & Governance (Room 40.008) <i>Chair: Erna Engebretsen</i>	Environmental Sustainability & Emissions Forecasting (Room 40.010) <i>Chair: Nathalie Sanghikian</i>	Emerging Maritime Technologies (Room 40.012) <i>Chair: Pim van Leeuwen</i>
Co-creating a Blue Economy Observatory of a Port-City: Case Study of Barcelona. <i>Arnau Sedeño Gómez, Javier Garrido, Miquel Canals, Genís Majoral, Sergi Saurí</i> Port Authorities as Drivers of Hinterland Intermodality: Evidence from Mediterranean Ports. <i>Matteo Boschian Cuch, Enric Pons, Sergi Saurí</i> AI Ethics and Regulatory Readiness in Smart Logistics: A Comparative Study of South Korea's AI Basic Act and Germany's European Union AI Act Context. <i>Dohee Kim, Alexander Kriebitz, Sunghyun Sim, Kyung-Hun Shin</i> Implications of Fuel EU Maritime Regulations for shipping logistics based on Norwegian national freight model <i>Erna Engebretsen, Mehdi Sharifyazdi</i>	Data-Driven Fuel Consumption Analysis for Maintenance Operations in Offshore Wind Farms. <i>Komeyl Baghizadeh Polami, Julia Pahl, Paulo Cesar Ribas</i> Optimizing Liner Shipping Networks with Electric Vessels. <i>Dario Palasgo, Richard Lusby, Jesper Larsen</i> Interpretable Multiple Pathway Attention Network for Pollutant Emission Forecasting. <i>Jaeun Kwon, Kyunghun Lee, Hyerim Bae</i> A Heuristic Approach for the Maritime Inventory Routing Problem under Uncertainty with Decarbonization Analysis. <i>Nathalie Sanghikian, Rafael Meirelles, Anand Subramanian, Rafael Martinelli</i>	A Reinforcement Learning Approach for the Dynamic Berth Allocation Problem.* <i>Carlos March Moya, Frederik Schulte, Kevin Tierney, Neil Yorke-Smith</i> Optimisation-Based Planning for Large-Scale Deployment of Autonomous Underwater Vehicles. <i>Mehdi El Krari, Jonathan Smith, Maria Fox</i> Inference of Port Infrastructure Investments from AIS Data: Using Vessel Characteristics for Understanding the Global Port Network Capabilities. <i>Irem Bilen</i> Assessing the value of information in vessel arrival planning at multiple ports. <i>Pim van Leeuwen, Rommert Dekker</i>

16:00-16:30 Coffee break

16:30-17:30 Plenary talk (Room 40.S02)

Stefan Voß Agentic generative AI for maritime logistics: From modeling to automated solution design. <i>Chair: Rosa González</i> Agentic and generative artificial intelligence (AI) are becoming increasingly widespread, especially in conversational human-computer interaction systems. Recent advancements in large language models (LLMs) have opened up numerous possibilities for enhancing the productivity in operations research (OR) and maritime logistics (ML). Tasks such as implementing model formulations, retrieving or generating benchmark datasets, and creating solution approaches can potentially be assisted by AI-driven systems. These technologies have the potential to accelerate analytical processes and reduce the workload for OR and ML scholars, students, and practitioners. However, despite their advantages, these systems also present several challenges, such as inconsistent responses, hallucinated information, and limited explainability. This presentation examines the supporting role of agentic and generative AI through different tasks in OR and ML. Both the benefits and limitations of LLM-based agents are examined, and offering a comprehensive understanding of how LLMs can be responsibly integrated into collaborative OR / ML workflows to solve related problems and design the next generation of intelligent tools for maritime logistics.
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13:30-14:00 Closing Session

20:00-22:00 Conference dinner

Friday, July 10, 2026

09:00-13:00 Technical visit: Port of Barcelona

Venue

Ciudadella Campus (Roger de Llúria building)

Ramon Trias Fargas, 25-27
08005 Barcelona

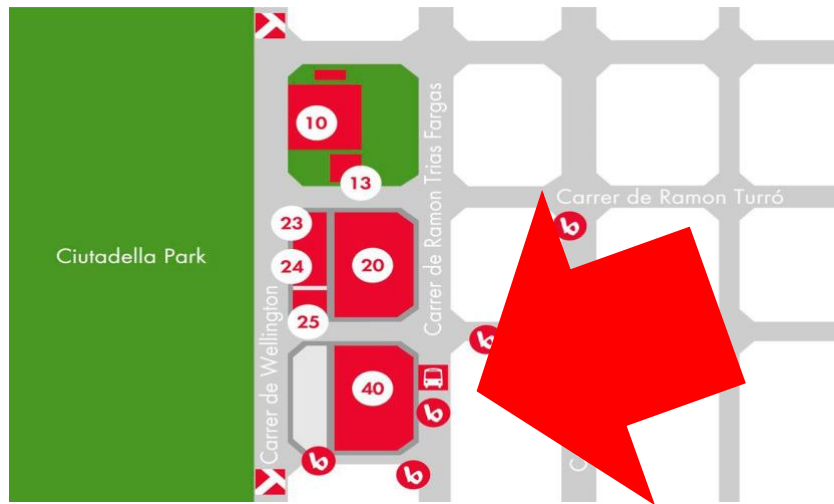
How to get there:

Metro: Line 4 Ciutadella-Vila Olímpica

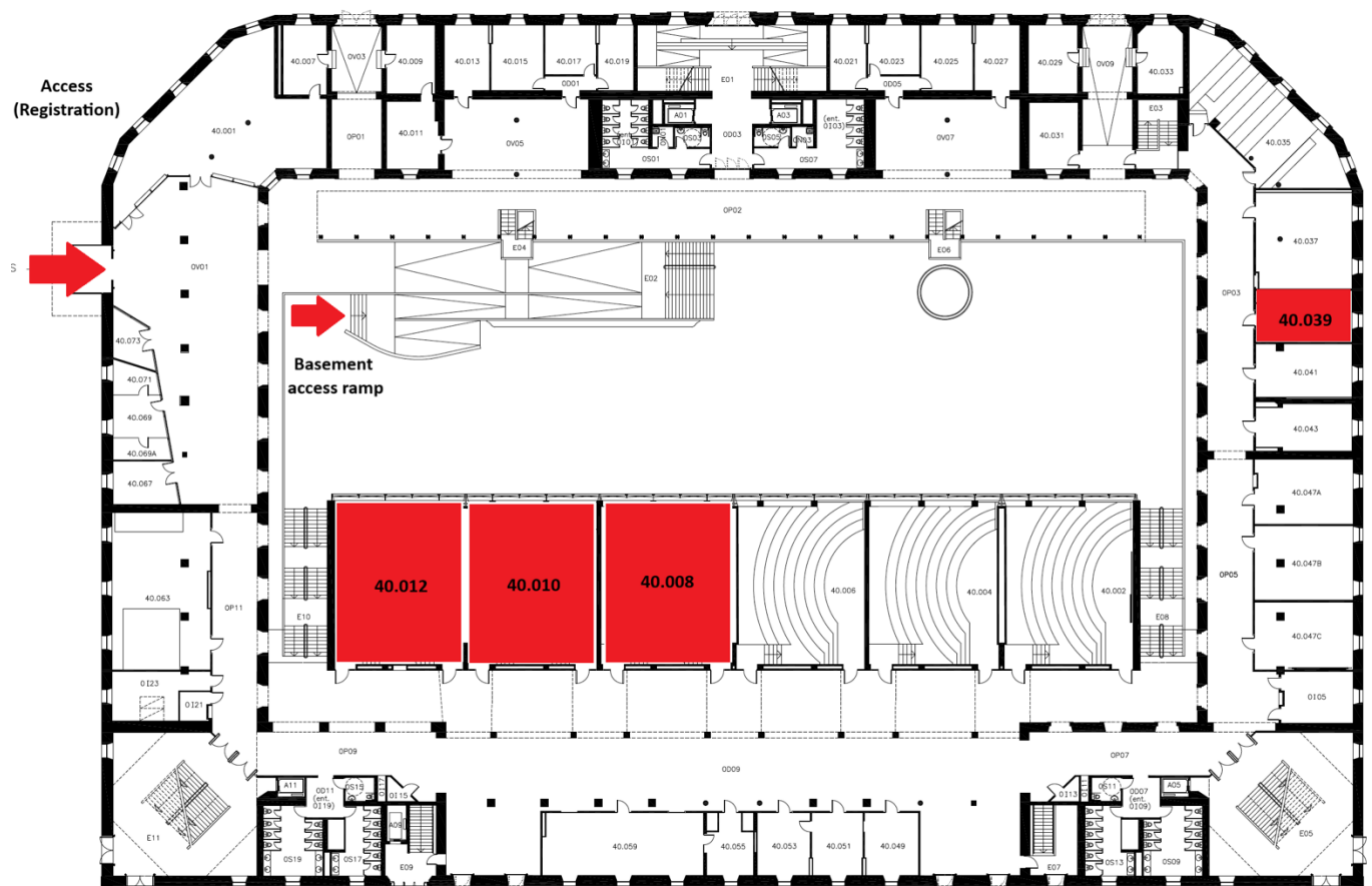
Tram: Line T4 Wellington and Ciutadella-Vila Olímpica

Bus: H16, V21, 136

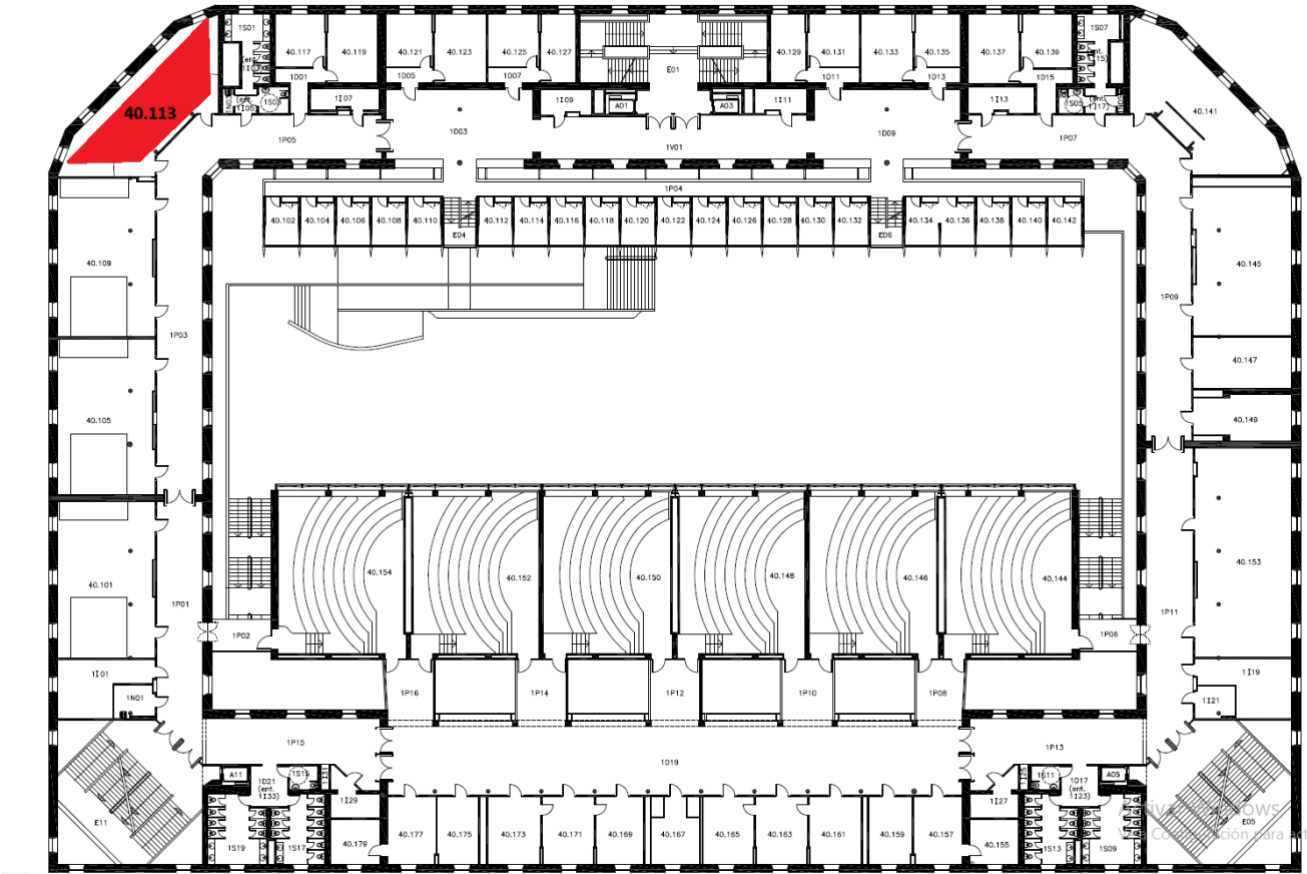




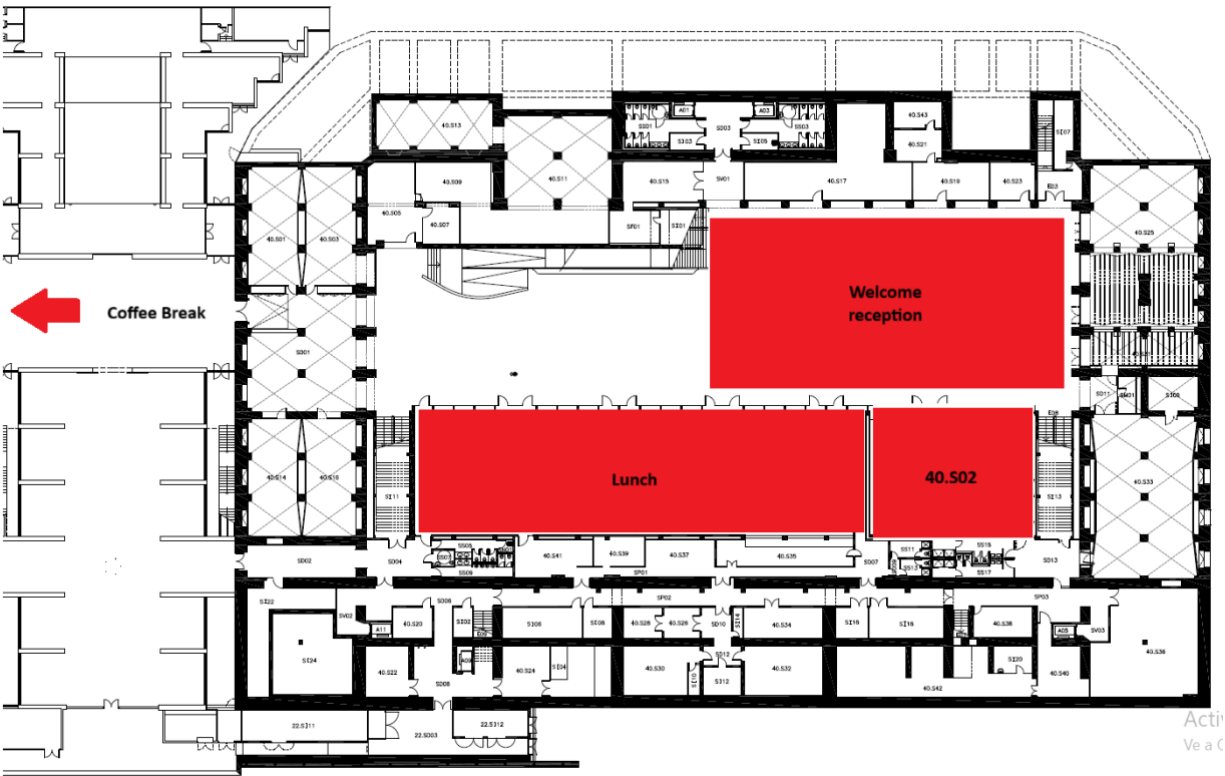
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