

Alan Osorio Mora

Curriculum Vitae

Research Interests

Operations Research, Logistics, Stochastic Programming, Algorithms, Vehicle Routing, Facility Location.

Education

- 2020–2024 **Ph.D. in Biomedical, Electrical and System Engineering—Operations Research**, *Università di Bologna*, Italy
Thesis: *Vehicle routing and location routing problems with minimum latency: Algorithms and models.*
- 2016–2019 **Masters in Industrial Engineering**, *Universidad Del Bío-Bío*, Chile
Thesis: *Hub Location Problem models applied to freight transport.*
- 2012–2018 **B.Sc. in Industrial Engineering**, *Universidad Del Bío-Bío*, Chile.

Research Experience

- 2024–Present **Postdoctoral Researcher**, *Fachbereich Wirtschaftswissenschaften (Faculty of Business and Economics), RPTU Kaiserslautern-Landau*, Germany
Logistics (and Operations Research) under Prof. Timo Gschwind.
- 2020–2024 **Ph.D. Researcher**, *DEI, Università di Bologna*, Italy
Latency routing problems with Prof. Daniele Vigo and Prof. Paolo Toth.
- 2023 **Visiting Researcher**, *Departamento de Estatística e Investigação Operacional, Universidade de Lisboa*, Portugal
Location-routing under uncertainty with Prof. Francisco Saldanha da Gama.
- 2020 **Visiting Researcher**, *Departamento de Ingeniería Civil e Industrial, Pontificia Universidad Javeriana de Cali*, Colombia
Vehicle routing problems with multiple depots with Prof. John Willmer Escobar.
- 2016–2019 **Research Assistant**, *Departamento de Ingeniería Industrial, Universidad del Bío-Bío*, Chile
Logistics with Prof. Rodrigo Linfati, Economics with Prof. Francisco Nuñez.

Publications

- [1] **Osorio-Mora, A.**, Alvarez-Miranda, E., & Saldanha-da-Gama, F. (2026). The latency location-or-routing problem. *Transportation Research Part E: Logistics and Transportation Review*, 105280
- [2] **Osorio-Mora, A.**, & Gschwind, T. (2026). Exact methods for the cumulative capacitated vehicle routing problem with time windows. *Networks*.
- [3] **Osorio-Mora, A.**, Saldanha-da-Gama, F., & Toth, P. (2025). A risk-averse latency location-routing problem with stochastic travel times. *European Journal of Operational Research*, 321(3), 837-850.

- [4] **Osorio-Mora, A.**, Escobar, J. W., & Toth, P. (2023). An iterated local search algorithm for latency vehicle routing problems with multiple depots. *Computers & Operations Research*, 158, 106293.
- [5] **Osorio-Mora, A.**, Rey, C., Toth, P., & Vigo, D. (2023). Effective metaheuristics for the latency location routing problem. *International Transactions in Operational Research*, 30(6), 3801-3832.
- [6] **Osorio-Mora, A.**, Soto-Bustos, M., Gatica, G., Palominos, P., & Linfati, R. (2021). The multi-depot cumulative vehicle routing problem with mandatory visit times and minimum delayed latency. *IEEE Access*, 9, 27210-27225.
- [7] **Osorio-Mora, A.**, Núñez-Cerda, F., Gatica, G., & Linfati, R. (2020). Multimodal capacitated hub location problems with multi-commodities: an application in freight transport. *Journal of Advanced Transportation*, 2020(1), 2431763.

Preprints/Under review

- [1] **Osorio-Mora, A.**, Campuzano, G., Lalla-Ruiz, E., & Gschwind, T. (2025). The Cumulative Location Routing Problem: Algorithms and Models.
- [2] Rey, C., **Osorio-Mora, A.**, & Toth, P. (2026). A two-stage stochastic quadratic multiple knapsack problem with risk-aversion.
- [3] Campuzano, G., **Osorio-Mora, A.**, Lalla-Ruiz, E., Mes, M., & Toth, P. (2026). The Variable-Speed Drone-Assisted Asymmetric Traveling Repairman Problem with Time Windows.

Teaching Experience

- 2024–present **Academic Staff**, *RPTU Kaiserslautern-Landau*, Germany
Courses: Logistics Planning under Uncertainty; Facility Location and Network Design; Masters Seminar; Masters Thesis.
- 2020 **Visiting Lecturer**, *Departamento de Ingeniería Civil e Industrial, Pontificia Universidad Javeriana de Cali*, Colombia
Course: Optimization and Transportation Systems.
- 2019 **Lecturer**, *Departamento de Ingeniería Industrial, Universidad del Bío-Bío*, Chile
Courses: Information Structure and Design; Project Management; Economic Engineering.
- 2015–2018 **Teaching Assistant**, *Departamento de Ingeniería Industrial, Universidad del Bío-Bío*, Chile
Courses: Operations Research; Project Management; Microeconomics.

Selected Talks

- 2026 Osorio-Mora, A., & Gschwind, T. An exact algorithm for the cumulative capacitated vehicle routing problem with time windows, *24th Conference of the International Federation of Operational Research Societies IFORS 2026*. Vienna, Austria.
- 2025 Osorio-Mora, A., Alvarez-Miranda, E., & Saldanha-da-Gama, F. The latency location-or-routing problem, *34th European conference on Operational Research EURO 2025*. Leeds, UK.
- 2025 Osorio-Mora, A., Campuzano, G., Lalla-Ruiz, E., & Gschwind, T. A Matheuristic algorithm for the Cumulative Location Routing Problem, *EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog)*. Trento, Italy.

- 2022 Osorio-Mora, A., Escobar, JW., & Toth, P., A two-phase metaheuristic for solving the multi-depot k-traveling repairman problem, *32th European conference on Operational Research EURO 2022. Espoo, Finland*.
- 2022 Osorio-Mora, A., Rey, C., Toth, P., & Vigo, D., Hybrid metaheuristics for the latency location routing problem, European Chapter on Combinatorial Optimization ECCO XXXV.

Grants/Scholarships/Other information

- 2024-present Board member of *EURO Young*.
- 2020-2024 *Scholarship: Becas Chile Doctorado Internacional-ANID*. Grant number 2020-72210275.
- 2020 *Scholarship: Beca Alianza del Pacífico* (Research/Teaching funding).

Skills

- Optimization CPLEX, Gurobi, C⁺⁺, AMPL.
- Languages English, Spanish, Italian.

References

Paolo Toth, *Professor Emeritus, DEI, Università di Bologna, Italy*
paolo.toth@unibo.it

Francisco Saldanha da gama, *Chair in Supply Chain Management, Sheffield University Management School, U.K.*
francisco.saldanha-da-gama@sheffield.ac.uk

Timo Gschwind, *Chair of Logistics, RPTU Kaiserslautern-Landau, Germany*
gschwind@rptu.de