Charly Lersteau

Research Fellow in Operations Research

EXPERIENCE

Research Fellow (2 years)

Huazhong University of Science and Technology Dec 2019 - Dec 2021 China

- Crane scheduling and stacking problems
- Directed by Weiming Shen

Research Fellow (2 years ½)

Liverpool John Moores University Jan 2017 - Jun 2019 United Kingdom

- Optimization of container-handling performance in ports
- Anticipating and mitigating reactionary delays in railway networks
- Directed by Trung Thanh Nguyen

Internship (3 months)

University of Salerno Oct 2014 - Dec 2014 Italy

- Solving target tracking problems with wireless sensor networks using column generation
- Directed by Raffaele Cerulli, Andrea Raiconi

Research visit (5 months)

University of Vienna Feb 2013 - Jun 2013 Austria

- On solving the multi-objective facility location problem with single sourcing and capacity constraints
- Directed by Fabien Tricoire, Xavier Gandibleux, Anthony Przybylski

EDUCATION

PhD Mathematics, Sciences, Information and Communication Technologies

University of Southern Brittany 2013 - 2016 France

- Optimization of wireless sensor networks for tracking mobile targets
- Directed by Marc Sevaux, André Rossi

MSc Computer Science - Optimisation in Operations Research

University of Nantes 2011 - 2013 France

- Erasmus and Master thesis at University of Vienna, Austria (5 months)
- Erasmus study at Université Libre de Bruxelles, Belgium (5 months)
- Ranked 2nd in the class

BSc Computer Science - Mathematics

University of Nantes 2010 - 2011 France

- Ranked 2nd in the class

PUBLICATIONS

- Lersteau, C., Nguyen, T. T., Thanh Le, T., Nguyen, H. N., & Shen, W. (2021). **Solving the problem of stacking goods: mathematical model, heuristics and a case study in container stacking in ports**. IEEE Access, 9(), 25330-25343. URL: https://doi.org/10.1109/ACCESS.2021.3052945
- Delavernhe, F., Lersteau, C., Rossi, A., & Sevaux, M. (2020 , apr). **Robust scheduling for target tracking using wireless sensor networks**. Computers & Operations Research, 116, 104873. URL: https://doi.org/10.1016%2Fj.cor.2019.104873
- Deplano, I., Lersteau, C., & Nguyen, T. T. (2019 , oct). **A mixed-integer linear model for the multiple heterogeneous knapsack problem with realistic container loading constraints and bins' priority.** International Transactions in Operational Research. URL: https://doi.org/10.1111%2Fitor.12740
- Yazdani, D., Omidvar, M. N., Deplano, I., Lersteau, C., Makki, A., Wang, J., & Nguyen, T. T. (2019 , jun). **Real-time seat allocation for minimizing boarding/alighting time and improving quality of service and safety for passengers**. Transportation Research Part C: Emerging Technologies, 103, 158–173. URL: https://doi.org/10.1016%2Fj.trc.2019.03.014
- Lersteau, C., Rossi, A., & Sevaux, M. (2018 , mar). **Minimum energy target tracking with coverage guarantee in wireless sensor networks**. European Journal of Operational Research, 265(3), 882–894. URL: https://doi.org/10.1016%2Fj.ejor.2017.08.045
- Lersteau, C., Rossi, A., & Sevaux, M. (2016 , jul). **Robust scheduling of wireless sensor networks for target tracking under uncertainty**. European Journal of Operational Research, 252(2), 407–417. URL: https://doi.org/10.1016%2Fj.ejor.2016.01.018

CONFERENCES

- Lersteau, C., Sevaux, M., Rossi, A., Cerulli, R., & Raiconi, A. (2016 , May). **Maximization of residual capacities for target tracking in wireless sensor networks.** ISCO 2016, Combinatorial Optimization: 4th International Symposium. Vietri sul Mare, Italy.

CONTACT

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SKILLS

Optimization Advanced ●●●●●

- Mathematical modeling
- Combinatorial optimization
- Multi-objective optimization
- Linear programming
- Column Generation
- Branch-and-Price
- Metaheuristics
- Complexity theory
- Graph theory

Programming Advanced ●●●●●

- C, C++, Python, Typescript
- CPLEX, SCIP, Gurobi
- Pandas, SQL
- HTML, Javascript, CSS

Writing Advanced ●●●●●

- LaTeX, Beamer
- Literature review
- Technical writing

Data science Elementary ●●○○○

- Data parsing and analysis
- Link different data sources

LANGUAGES

French Native speaker ●●●●●

English Fluent ●●●●○

Italian Elementary ●●○○○

Mandarin HSK1 ●○○○○

INTERESTS

- Traveling
- Philosophy
- Salsa dance
- Kung fu (Hung gar)
- Science-fiction, Steampunk