

# CURRICULUM VITAE

**João P. Leitão** (Adjunct Professor / Senior scientist, Group leader)

ETH Zurich: Swiss Federal Institute of Technology in Zurich  
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## MAIN RESEARCH INTERESTS

Urban flood modelling and risk management; Urban drainage and water cycle, namely urban hydrology and urban water reuse; Urban microclimate; Geographic Information Systems (GIS), focus on methodology development for urban hydrology analysis

## EDUCATION / ACADEMIC TITLES

- 2023 **Agregação (Habilitation) in Civil Engineering** at Instituto Superior Técnico, University of Lisbon, Portugal. Seminar: *Flood data sources and data-driven flood prediction: insights on novel tools*
- 2006 - 2009 **PhD in Civil and Environmental Engineering** at Imperial College London, University of London, UK
- 2001 - 2004 **MSc in Geographic Information Systems** at Instituto Superior Técnico, Technical University of Lisbon, Portugal
- 1996 - 2001 **Licenciatura (5-year undergraduate degree) in Environmental Engineering** at Technical University of Lisbon, Portugal

## PROFESSIONAL AND TEACHING EXPERIENCE (last five years)

- Since 2018 **Senior scientist** (Group leader). Infrastructures Group, Department of Urban Water Management, Eawag: Swiss Federal Institute of Aquatic Science and Technology, Switzerland
- 2014 - 2018 **Scientist** (Group leader on tenure-track). Infrastructures Group, Department of Urban Water Management, Eawag: Swiss Federal Institute of Aquatic Science and Technology, Switzerland
- 2024 – to date **Adjunct (Associate) Professor**. Department of Civil, Environmental and Geomatic Engineering, ETH Zurich, Switzerland (Responsible for the 102-0248-00L: *Infrastructure Systems in Urban Water Management* course; co-coordinator of the 102-0004-00L: *Einführung Umweltingenieurwissenschaften*; 16 h lectures on *Flood Risk Assessment* in the 102-0250-00L: *Urban Drainage Planning and Modelling* course; 4 h lecture on *Climate-adapted water management: dealing with surface runoff and using blue-green infrastructure* in the Certificate of Advanced Studies on Natural Hazard - Risk Management)
- 2019 – 2024 **Lecturer**. Department of Civil, Environmental and Geomatic Engineering, ETH Zurich,

Switzerland (Coordination of the 102-0248-00L: *Infrastructure Systems in Urban Water Management* course)

#### GRANTS AND AWARDS (last five years)

- 2023 **Top cited Article 2021-2022** (doi: 10.1111/jfr3.12684). *Journal of Flood Risk Management*  
2022 **Top cited Article 2020-2021** (doi: 10.1111/jfr3.12684). *Journal of Flood Risk Management*  
2019 **Best Paper** (doi: 10.5194/isprs-annals-IV-2-W5-5-2019). ISPRS Geospatial Week 2019  
2019 **Top downloaded Paper** (doi: 10.1111/tgis.12304). *Transactions in GIS*

#### STUDENTS (CO-)SUPERVISION AND POSTDOCTORAL RESEARCHERS MENTORING

- 4 PostDoctoral researchers**  
**10 PhD students** (5 on-going and 5 finished)  
**2 Research Assistant**  
**> 30 Master students**

#### MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ORGANIZATIONS

- Water Research; Water Research X; Urban Water Journal* (Associate editor)  
International Working Group on Data and Models of the IWA and IAHR JCUD (Chair)  
IWA: International Water Association (Eawag nominated representative)  
Portuguese Engineers Association (Senior member/ Expert in urban water engineering)

#### RECENT (SELECTED) PUBLICATIONS IN INTERNATIONAL SCIENTIFIC JOURNALS

(full list at: <https://scholar.google.ch/citations?user=5jrwMT4AAAAJ&hl=en>)

Salliou, N., Urech, P., **Leitão, J.P.**, Fappiano, F., Grêt-Regamey, A. (in press). Managing urban water requires creative and evidence-based design. *Nature Water*. doi: 10.1038/s44221-025-00486-9

Gobatti, L., Bach, P.M., Maurer, M., **Leitão, J.P.** (2025). Impact of soil moisture content on urban tree evaporative cooling and human thermal comfort. *npj Urban Sustainability*, 5, 26. doi: 10.1038/s42949-025-00220-0

Chen, J., Bach, P.M., **Leitão, J.P.** (2025). A pavement watering model in the TARGET microclimate model to enable city-wide planning of heat mitigation measures. *Sustainable Cities and Society*. doi: 10.1016/j.scs.2025.106313

Farfán-Durán, J.F., Montalvo, C., Cea, L., **Leitão, J.P.** (2025). Integrating net rainfall calculation in Deep Learning-based surrogate modelling frameworks for urban flood prediction. *Journal of Hydrology*, 661(C), 133632. doi: 10.1016/j.jhydrol.2025.133632

Guo, Z., **Leitão, J.P.** (2025). Creating flood safe urban landscape designs using differentiable surrogate flood models. *Blue-Green Systems*. doi: 10.2166/bgs.2025.042

Joshi, P., Naves, J., Anta, J., Maurer, M., **Leitão, J.P.** (2025). Dataset on the impacts of sand and leaf litter on the hydrological performance of green roofs as surrogate for infiltration-based blue-green infrastructure (BGI). *Data in Brief*, 59, 111337. doi: 10.1016/j.dib.2025.111337

#### AD-HOC REVIEWER FOR SCIENTIFIC JOURNALS

*Environmental Modelling and Software, Journal of Hydrology, Journal of Ecological Informatics, Journal of Water Supply: Research and Technology – AQUA, Natural Hazards, Sustainability, Urban Water Journal, Water, Water Research, Water Science and Technology, Water Science and Technology: water supply*

#### AD-HOC REVIEWER FOR SCIENTIFIC PROPOSALS

For four International research science foundations

September 2025