

# CURRICULUM VITAE

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

Eawag: Swiss Federal Institute of Aquatic Science and Technology

Department of Urban Water Management

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## MAIN RESEARCH INTERESTS

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

## EDUCATION

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 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

Since 2019 **Lecturer**. Department of Civil, Environmental and Geomatic Engineering, ETH Zurich, Switzerland (Coordination of the 102-0248-00L: *Infrastructure Systems in Urban Water Management* course)

Since 2017 **Lecturer**. Department of Civil, Environmental and Geomatic Engineering, ETH Zurich, Switzerland (4 h lecture on *Flood Risk Assessment* in the 102-0250-00L: Urban Drainage Planning and Modelling course)

Since 2017 **Guest lecturer**. Department of Integrated Water Systems & Governance, IHE Delft Institute for Water Education, the Netherlands (3 h lecture on *Performance and Risk analysis of urban water systems* in the Urban Water Systems course)

## GRANTS AND AWARDS

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*

2018 **Most Innovative New Technology of the Year**. *UK Water Industry Awards*. As member of the CENTAUR development (project) team

- 2015 **Commended Paper** (doi: 10.1111/jfr3.12010). Journal of Flood Risk Management Outstanding paper Award 2013 (supported by the JBA Trust)
- 2012 **Post-doctoral Fellowship** (3+3 years). FCT: Portuguese Science and Foundation, Portugal (Fundação para a Ciência e a Tecnologia)
- 2011 **Co-author of the paper submitted to the Poul Harremões prize** awarded to Dr. Nuno E. Simões. IWA/IAHR Joint Committee on Urban Drainage
- 2007 **Young Persons' Paper Competition (runner-up)**. UK Section of the International Association of Hydraulic Engineering and Research (IAHR)
- 2006 **PhD Scholarship** (4 years). FCT: Portuguese Science and Technology Foundation, Portugal (Fundação para a Ciência e a Tecnologia)

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

- 1 PostDoctoral researcher**
- 9 PhD students** (5 on-going and 3 finished)
- 2 Research Assistant**
- > 30 Mater students**

#### MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ORGANIZATIONS

- 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 PUBLICATIONS IN INTERNATIONAL SCIENTIFIC JOURNALS

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

- Peleg, N., Ban, N., Gibson, M.J., Chen, A.S., Paschalis, A., Burlando, P., **Leitão, J.P.** (2022). Mapping storm spatial profiles for flood impact assessments. *Advances in Water Resources*, 166, 104258. doi: 10.1016/j.advwatres.2022.104258
- Chaudhary, P., **Leitão, J.P.**, D'Aronco, S., Perraudin, N., Obozinski, G., Perez-Cruz, F., Schindler, K., Wegner, J.D., Russo, S. (2022). Flood Uncertainty Estimation using Deep Ensembles. *Water*, 14, 2980. doi: 10.3390/w14192980
- Guo, Z., Moosavi, V., **Leitão, J.P.** (2022). Data-driven rapid flood prediction mapping with catchment generalizability. *Journal of Hydrology*, 609, 127726. doi: 10.1016/j.jhydrol.2022.127726
- Harpaz, C., Russo, S., **Leitão, J.P.**, Penn, R. (2022). Potential of supervised machine learning algorithms for estimating the impact of water efficient scenarios on solids accumulation in sewers. *Water Research*, 216, 118247. doi: 10.1016/j.watres.2022.118247
- Figuroa, A., Hadengue, B., **Leitão, J.P.**, Rieckermann, J., Blumensaat, F. (2021). A distributed heat transfer model for thermal-hydraulic analyses in sewer networks. *Water Research*, 204, 117649. doi: 10.1016/j.watres.2021.117649

#### 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 three International research science foundations

November 2022