OUDIN Ludovic
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Education

2001 – 2004	Ph.D., INRAE AgroParisTech. Evapotranspiration processes in hydrological models
2000 – 2001	MSc in Physical Geography (Univ Paris 4 – E.N.S. Saint-Cloud, Paris)
1998 – 2000	Engineer School in Hydraulics (Ense3-INP Grenoble)

Employment

Since 2005:	Lecturer – Sorbonne University
2004 – 2005:	Post-doc fellow, INRAE: Flood forecasting in the Seine River

Distinctions

2014	STAtistical HYdrology Best Paper Award 2014 for the paper Oudin et al. (2010), WRR, doi:10.1029/2009WR008887.
2006	Best PhD Award from CNFGG (French section of IUGG), France
2006	Ph.D. Award from French Hydrotechnical Society

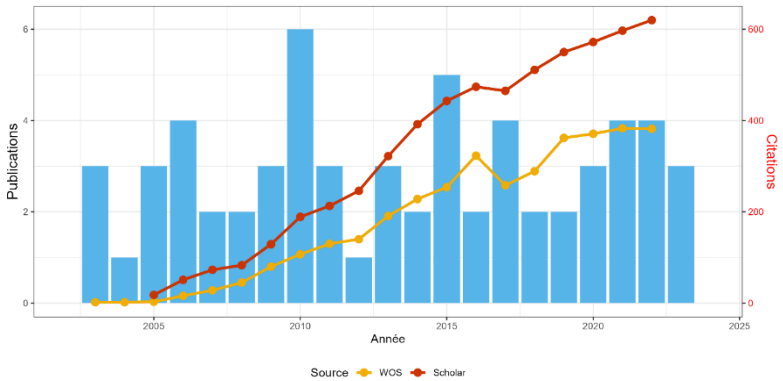
Scientific responsibilities

Since 2022	Responsible for the Water Cycle theme of the EUR IPSL (50 researchers spread over 10 laboratories in the Ile-de-France region)
Since 2021	Member of the SNO Observil scientific council on urban environments
2020	Chairman/member of the HCERES committee of INRAE's UR ETNA / Institut des Géosciences de l'Environnement laboratory
2020	Member of the scientific committee of the INSU prospective workshop on urban environments
2013 – 2016	Associate editor of Hydrology and Earth System Sciences (Impact Factor = 5.8)

Research assistantships - evaluation

Since 2013	17 Ph.D. Thesis juries, more than 100 articles reviews
Since 2010	10 Ph.D. Thesis supervision

Bibliometric view



Selection of granted research projects

2023 INTERVILLE project (LEFE, 25 k€). Better understanding through land surface models of city-climate-hydrology interactions, and in particular the links between high-impact events (heatwaves, floods) and urbanization.

2022 RECRUH project (CNRS/INSU LEFE-EC2CO BioHefect, 20k€). This project aims to reconstruct major historical floods in Europe since 1856, using pressure field reanalyses produced by NOAA and hydrological modeling.

2018 OLICLIM project (Emergences SU, 75k€). I was responsible for milestone 3 of the project dealing with hydrological modeling of the upper Guadalquivir under climate change. This project enabled me to set up collaborations with geographer colleagues who were also interested in olive growers' perceptions of climate change.

2017 TRHYBU project (CNRS- EC2CO/BioHefect, 18 k€). This project involved teams from INRAE Antony and Lyon, as well as GéoAzur. It enabled me to initiate work in urban hydrology, which is now the central theme of my activities.

2009 REXHYSS project (GICC - Ministère de l'Environnement MTES 350 k€). I was responsible for milestone 4 on the impact of climate change on flooding in the Somme basin and made a major contribution to milestone 2 on assessing the impact of climate change on river flow in the Seine basin. This project was one of the first to use a multi-model approach to assess the hydrological impact of climate change.

5 selected publications over the last 5 years: (total 60 peer-reviewed, h=28 – ISI)

Lalonde, M., Oudin, L., Bastin, S., 2023. Urban effects on precipitation: Do the diversity of research strategies and urban characteristics preclude general conclusions? Urban Clim. 51, 101605. https://doi.org/10.1016/j.uclim.2023.101605

Li, C., Sun, G., Caldwell, P.V., Cohen, E., Fang, Y., Zhang, Y., Oudin, L., Sanchez, G.M., Meentemeyer, R.K., 2020. Impacts of Urbanization on Watershed Water Balances Across the Conterminous United States. Water Resour. Res. 56, e2019WR026574. https://doi.org/10.1029/2019WR026574

Oudin, L., Salavati, B., Furusho-Percot, C., Ribstein, P., Saadi, M., 2018. Hydrological impacts of urbanization at the catchment scale. J. Hydrol. 559, 774–786. https://doi.org/10.1016/j.jhydrol.2018.02.064

Saadi, M., Oudin, L., Ribstein, P., 2021. Physically consistent conceptual rainfall–runoff model for urbanized catchments. J. Hydrol. 599, 126394. https://doi.org/10.1016/j.jhydrol.2021.126394

Saadi, M., Oudin, L., Ribstein, P., 2020. Beyond Imperviousness: The Role of Antecedent Wetness in Runoff Generation in Urbanized Catchments. Water Resour. Res. 56, e2020WR028060. https://doi.org/10.1029/2020WR028060

Teaching activities and responsibilities

Since 2008 Head of the MSc degree Hydrology-Hydrogeology specialization (40 students each year, 20 in each level).

Since 2006 Responsible for the Hydraulics teaching Unit (3 ECTS, Master degree).

Since 2008 Responsible for the Hydrology teaching Unit (3 ECTS, Master degree).

Since 2006 Responsible for the Hydraulics and Water Treatment teaching Unit (3 ECTS, license degree).

2005-2020 Head of the Hydrology teaching Unit (3 ECTS, license degree).