



2020 Otto Jaag Water Protection Prize goes to Matthew Moy de Vitry

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Topics: Organisation & Staff

Matthew Moy de Vitry has been awarded the ETH Zurich Otto Jaag Water Protection Prize for his doctoral thesis “Public surveillance and the future of urban pluvial flood modelling”.

On 21 November 2020, Matthew Moy de Vitry received the ETH Zurich Otto Jaag Water Protection Prize, an award which recognises outstanding doctoral and Master’s theses in the field of water protection and hydrology. In his thesis, entitled “Public surveillance and the future of urban pluvial flood modelling”, Moy de Vitry showed that unconventional and potentially controversial approaches may be required to manage urban flash floods – an issue of increasingly critical importance due to climate change and urbanisation.

Innovative approaches for pressing issues

Matthew Moy de Vitry completed his doctoral research at the Urban Water Management department of Eawag in November 2019. His thesis, supervised by Professor Max Maurer and Dr João Leitão, was concerned with urban flood forecasting. Moy de Vitry noted that often the models used for this purpose are not sufficiently reliable, owing to a lack of the flood monitoring data which is needed for model calibration and validation. He therefore developed a number of innovative approaches involving the utilisation of alternative data sources – such as images and videos from traffic surveillance cameras or social media.

Improving flood risk mitigation

Moy de Vitry's research offers a cost-effective solution for cities seeking to adapt to a changing climate with more intense rainfall. It could thus also help to mitigate the risks of flood events for urban populations and infrastructure. The prize awarded to Matthew Moy de Vitry underlines the importance of urban water management for environmental protection. He is delighted to have received the award and full of praise for the excellent research environment at Eawag with its close connections to ETH and support of dedicated staff, which enabled him to conduct such an extensive, in-depth doctoral research project.

In March 2020, having completed his PhD, Matthew Moy de Vitry began working as a web developer and data scientist at Hades Technologies Ltd, an ETH spin-off that develops data models for automatic detection of defects in sewers, using machine learning.

Otto Jaag Water Protection Prize

Professor Otto Jaag, who was renowned both nationally and internationally as a water protection pioneer, served as the Director of Eawag from 1952 to 1970. The "Otto Jaag Water Protection Prize" fund was established at ETH Zurich in 1980, two years after his death. The prize, awarded annually, is worth CHF 1000.

Publications

Peña-Haro, S.; Lüthi, B.; Carrel, M.; Scheidegger, A.; de Vitry, M. M.; Leitão, J. P. (2019) Es überschwemmt und keiner sieht zu?! Oberflächenabflussmessungen im urbanen Raum mittels Videomaterial von Überwachungskameras, *Aqua & Gas*, 99(5), 44-50, [Institutional Repository](#)
Moy de Vitry, M. (2019) Public surveillance and the future of urban pluvial flood modelling, 143 p, [doi:10.3929/ethz-b-000397587](https://doi.org/10.3929/ethz-b-000397587), [Institutional Repository](#)

Video

[Watch the video on Youtube](#)

Cover picture: ETH Zurich, Giulia Marthaler

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<https://www.eawag.ch/en/info/portal/news/news-archive/archive-detail/2020-otto-jaag-water-protection-prize-goes-to-matthew-moy-de-vitry>