

Maurizio Mazzoleni – Curriculum Vitae

Basic information

Name

Maurizio Mazzoleni

Employment

Current employment

Assistant Professor at the Water and Climate Risk department of the Institute for Environmental Studies (IVM) at Vrije Universiteit Amsterdam, the Netherlands, from October 2021

Previous employments

2020-2021: *Researcher at the Department of Earth Sciences, Program for Air, Water and Landscape Sciences at Uppsala University, Uppsala, Sweden.*

2018-2020: *Postdoc at the Department of Earth Sciences, Program for Air, Water and Landscape Sciences at Uppsala University, Uppsala, Sweden.*

2016-2018: *Junior Lecturer* in Hydroinformatics, Department of Hydroinformatics and Socio-Technical Innovation, *IHE Delft*, Delft, The Netherlands.

2012-2016: *PhD Researcher*, Hydroinformatics, emphasised Crowdsourced observations and Data Assimilation, *Delft University of Technology (TU Delft)*, The Netherlands.

2011-2012: *Research Fellow*, Flood risk management, *University of Brescia*, Italy.

Education and qualifications

Higher education

2016: Doctor of Philosophy, PhD in Hydroinformatics, *TU Delft*, The Netherlands. Dissertation's title: "Improving flood prediction assimilating uncertain crowdsourced data into hydrologic and hydraulic models". PhD achieved in November 2016, less than 5 years prior to the end of this application for Associate Professor at Uppsala University.

2015: Visiting PhD Researcher, Hydroinformatics, *University of Texas at Arlington*, U.S.A.

2011: MSc in Environmental Engineering, *University of Brescia*, Italy. Dissertation title: "Uncertainty in flood hazard mapping induced by piping breach: An application to the Po River".

2010: BSc in Environmental Engineering, *University of Brescia*, Italy. Dissertation title: "Estimation of Flow Duration Curve, Statistical Hydrology".

Teaching qualifications

2022, University Teaching Qualification at *Vrije Universiteit Amsterdam* (5 weeks course).

2021, Academic Teaching Training Course at *Uppsala University* (5 weeks course).

2019, Doctoral Supervisor Training at *Uppsala University* (1 week course).

2017, Pedagogical course on Aligned teaching and learning objectives at *IHE Delft*.

2017, Pedagogical course on Aligned assessment at *IHE Delft*.

2017, Pedagogical course on Active and Collaborative Learning at *IHE Delft*.

2018-2020, University Teaching Qualification, *IHE Delft*.

Research expertise

Research interest in 1) impact-based forecasting of climate extremes and infection diseases; 2) modelling of human-water interplays for societal impacts; 3) analysis of global datasets of hydrological and socio-economic variables to investigate the interplays between extremes and society.

Publication list

62. Engman, F., Kortekaas, E., Brandimarte, L. and **Mazzoleni, M.** (2025). Exploring land cover change after prolonged droughts at the global level. *Scientific Reports*, 15(1), 28520.
61. Vicario, S. A., Hornberger, G. M., **Mazzoleni, M.** and Garcia, M. (2025). Drivers and trends of streamflow droughts in natural and human-impacted basins across the contiguous United States. *Journal of Hydrology*, 655, 132908.
60. Paniello-Castillo, B., Triolo, F., Dryhurst, S., Taylor, O. A., **Mazzoleni, M.**, Khouja, J., ... and Raffetti, E. (2025). Exploring public risk perception of multiple hazards through network analysis. *Cell Reports Sustainability*.
59. Kreibich, H., Sivapalan, M., AghaKouchak, A., Addor, N., Aksoy, H., Arheimer, B., ..., **Mazzoleni, M.**, ... and Blöschl, G. (2025). Panta Rhei: a decade of progress in research on change in hydrology and society. *Hydrological sciences journal*, 70(7), 1210-1236.
58. Roa, O. H., Bachmann, M., Mechler, R., Trogrlic, R. S., Reimann, L., **Mazzoleni, M.**, ... and Mysiak, J. (2025). Challenges and opportunities in climate risk assessment: future directions for assessing complex climate risks. *Environmental Research Letters*.
57. De Graaff, L., Wens, M. L., Hoogesteger, J., **Mazzoleni, M.** and Van Loon, A. F. (2025). Threat appraisal and individual adaptation as drivers for collaborative drought management in the Netherlands. *Agricultural Water Management*, 309, 109341.
56. Sestito, B., Reimann, L., **Mazzoleni, M.**, Botzen, W. J. W. and Aerts, J. C. J. H. (2025). Identifying vulnerability factors associated with heatwave mortality: a spatial statistical analysis across Europe. *Environmental Research Letters*, 20(4), 044025.
55. Rusca, M. and **Mazzoleni, M.** (2025). 14. The interface between hydrological modelling and political ecology. The field guide to mixing social and biophysical methods in environmental research, 247.
54. Rusca, M., Sverdlik, A., Acharya, A., Basel, B., Boyd, E., Comelli, T., Dodman, D., Fraser, A., Harris, D.M., Lindersson, S., **Mazzoleni, M.**, Mbah, M.F., Mitlin, D., Ogra, A., Pelling, M., Raffetti, E., Sultana, F., Thompson, E., Tozzi, A., Zwarteven, M. and Messori, G. (2024). Plural climate storylines to foster just urban futures. *Nature Cities*, 1(11), 732-740.
53. Muller, L. C., Schaafsma, M., **Mazzoleni, M.** and Van Loon, A. F. (2024). Responding to climate services in the context of drought: A systematic review. *Climate Services*, 35, 100493.
52. Barendrecht, M. H., Matanó, A., Mendoza, H., Weesie, R., Rohse, M., Koehler, J., de Ruiter, M., Garcia, M., **Mazzoleni, M.**, Aerts, J.C.J.H., Ward, P.J., Di Baldassarre, G., Day, R. and Van Loon, A. F. (2024). Exploring drought-to-flood interactions and dynamics: A global case review. *Wiley Interdisciplinary Reviews: Water*, 11(4), e1726.
51. **Mazzoleni, M.**, Mondino, E., Matanó, A., Van Loon, A. F., & Barendrecht, M. H. (2024). Modelling the role of multiple risk attitudes in implementing adaptation measures to reduce drought and flood losses. *Journal of Hydrology*, 636, 131305.
50. Matanó, A., Berghuijs, W. R., **Mazzoleni, M.**, de Ruiter, M. C., Ward, P. J. and Van Loon, A. F. (2024). Compound and consecutive drought-flood events at a global scale. *Environmental Research Letters*, 19(6), 064048.
49. Vicario, S. A., Hornberger, G. M., **Mazzoleni, M.** and Garcia, M. (2024). The importance of climate and anthropogenic influence in precipitation partitioning in the contiguous United States. *Journal of Hydrology*, 633, 130984.
48. Raffetti, E., Ahrne, M., Döring, S., Hagström, A., **Mazzoleni, M.**, Messori, G., ... and Zaranonello, L. (2024). Sustainable transformations for healthcare systems in a changing climate. *Cell Reports Sustainability*, 1(3).
47. Biella, R., **Mazzoleni, M.**, Brandimarte, L. and Di Baldassarre, G. (2024). Thinking systemically about climate services: Using archetypes to reveal maladaptation. *Climate Services*, 34, 100490.
46. Shyrokaya, A., Pappenberger, F., Pechlivanidis, I., Messori, G., Khatami, S., **Mazzoleni, M.** and Di Baldassarre, G. (2024). Advances and gaps in the science and practice of impact-based forecasting of droughts. *Wiley Interdisciplinary Reviews: Water*, e1698
45. Kreibich, H., Schröter, K., Di Baldassarre, G., Van Loon, A. F., **Mazzoleni, M.**, et al. (2023) Panta Rhei benchmark dataset: socio-hydrological data of paired events of floods and droughts, *Earth Syst. Sci. Data*, 15, 2009–2023, <https://doi.org/10.5194/essd-15-2009-2023>.
44. Rusca, M., **Mazzoleni, M.**, Barcena, A., Savelli, E. and Messori, G. (2023). Speculative Political Ecologies:(re) imagining urban futures of climate extremes. *Journal of Political Ecology*, 30(1), 581-608.

43. Savelli, E., **Mazzoleni, M.**, Di Baldassarre, G., Cloke, H. and Rusca, M. (2023). Urban water crises driven by elites' unsustainable consumption. *Nature Sustainability*, 6, pages929–940.
42. **Mazzoleni, M.** and Brandimarte, L. (2023) Modelling flood awareness in floodplain dynamics. *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2023.2177543.
41. Amaranto, A. and **Mazzoleni, M.** (2023) B-AMA: A Python-coded protocol to enhance the application of data-driven models in hydrology. *Environmental Modelling & Software*, 160, 105609.
40. **Mazzoleni, M.**, Dottori, F., Cloke, H. L. and Di Baldassarre, G. (2022) Deciphering human influence on annual maximum flood extent at the global level. *Communications Earth & Environment*, 3(1), 262.
39. Kreibich, H., Van Loon, A.F., Schröter, K., Ward, P.J., **Mazzoleni M.**, et al. (2022) The challenge of unprecedented floods and droughts in risk management, *Nature*, 1-7, <https://doi.org/10.1038/s41586-022-04917-5>
38. Nohrstedt, D., Hileman, J., **Mazzoleni, M.**, Di Baldassarre, G. and Parker, C. F. (2022). Exploring disaster impacts on adaptation actions in 549 cities worldwide. *Nature Communications*, 13(1), 1-10, <https://doi.org/10.1038/s41467-022-31059-z>.
37. Nardi, F., Cudennec, C., Abrate, T., Allouch, C., Annis, A., Assumpção, T., ..., **Mazzoleni M.**, ... and Grimaldi, S. (2022) Citizens AND Hydrology (CANDHY): conceptualizing a transdisciplinary framework for citizen science addressing hydrological challenges. *Hydrological Sciences Journal*, 67(16), 2534-2551
36. Maranzoni, A., D'Oria, M. and **Mazzoleni, M.** (2022). Probabilistic flood hazard mapping considering multiple levee breaches. *Water Resources Research*, 58(4), e2021WR030874
35. **Mazzoleni, M.**, Odongo, V., Mondino, E. and Di Baldassarre, G. (2021) Water management, hydrological extremes, and society: Modeling interactions and phenomena, *Ecology and Society*, 26(4), <https://doi.org/10.5751/ES-12643-260404>
34. Nohrstedt, D., **Mazzoleni, M.**, Parker, C. F. and Di Baldassarre, G. (2021). Exposure to natural hazard events unassociated with policy change for improved disaster risk reduction. *Nature communications*, 12(1), 1-11.
33. Di Baldassarre, G., **Mazzoleni, M.** and Rusca, M. (2021) The legacy of large dams in the United States, *Ambio*, <https://doi.org/10.1007/s13280-021-01533-x>.
32. **Mazzoleni, M.**, Mård, J., Rusca, M., Odongo, V., Lindersson, S. and Di Baldassarre, G. (2020). Floodplains in the Anthropocene: A global analysis of the interplay between human population, built environment and flood severity. *Water Resources Research*.
31. Akhter, F., **Mazzoleni, M.**, & Brandimarte, L. (2021). Analysis of 220 Years of Floodplain Population Dynamics in the US at Different Spatial Scales. *Water*, 13(2), 141.
30. Di Baldassarre, G., Cloke, H., Lindersson, S., **Mazzoleni, M.**, Mondino, E., Mård, J., ... & Tootoonchi, F. (2021). Integrating multiple research methods to unravel the complexity of human-water systems. *AGU Advances*, 2(3), e2021AV000473.
29. Ward, P. J., de Ruyter, M. C., Mård, J., Schröter, K., Van Loon, A., Veldkamp, T., von Uexkull, N., Wanders, N., AghaKouchak, A., Arnbjerg-Nielsen, K., Capewell, L., Llasat, M.C., Day, R., Dewals, B., Di Baldassarre, G., Huning, L.S., Kreibich, H., **Mazzoleni, M.**, Savelli, E., Teutschbein, C., van den Berg, H., van der Heijden, A., Vincken, J.M.R. and Wens, M. (2020). The need to integrate flood and drought disaster risk reduction strategies. *Water Security*, 11, 100070.
28. Nardi, F., Cudennec, C., Abrate, T., Allouch, C., Annis, A., Herman Assumpção, T., Aubert, A.H., Berod, D., Braccini, A.M., Buytaert, W., Dasgupta, A., Hannah, D.M., **Mazzoleni, M.**, Polo, M.J., Sæbø, Ø., Seibert, J., Tauro, F., Teichert, F., Teutonico, R., Uhlenbrook, S., Wahrman Vargas, C. and Grimaldi, S. (2020). Citizens AND Hydrology (CANDHY): conceptualising a transdisciplinary framework for citizen science addressing hydrological challenges. *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2020.1849707.
27. **Mazzoleni, M.**, Paron, P., Reali, A., Juizo, D., Manane, J. and Brandimarte, L. (2020) Testing UAV-derived topography for hydraulic modelling in a tropical environment, *Nat Hazards*. <https://doi.org/10.1007/s11069-020-03963-4>.
26. Alonso, S., **Mazzoleni, M.**, Bhamidipati, S., Gharesifard, M., Ridolfi, E. and Alfonso, L. (2020) Unravelling the Influence of Human Behaviour on Reducing Casualties during Flood Evacuation, *Hydrological Science Journal*.
25. Albertini, C., **Mazzoleni, M.**, Totaro, V., Iacobellis, V. and Di Baldassarre, G. (2020) Socio-Hydrological Modelling: The Influence of Reservoir Management and Societal Responses on Flood Impacts. *Water*, 12, 1384.

24. Fava, M.C., **Mazzoleni, M.**, Abe, N., Mendiondo, E.M. and Solomatine, D.P. (2020) Improving flood forecasting using an input correction method in urban models in poorly gauged areas. *Hydrological Sciences Journal*, 1-16.
23. Breinl, K., Di Baldassarre, G., **Mazzoleni, M.**, Lun, D. and Vico, G. (2020) Changing duration and timing of extreme dry and wet spells at a global scale, *Environmental Research Letter*, <https://doi.org/10.1088/1748-9326/ab7d05>.
22. Michaelis, T., Brandimarte, L. and **Mazzoleni, M.** (2020) Capturing flood-risk dynamics with a coupled agent-based and hydraulic modelling framework, *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2020.1750617.
21. De Luca, P., Messori, G., Wilby, R. L., **Mazzoleni, M.** and Di Baldassarre, G. (2020). Concurrent wet and dry hydrological extremes at the global scale. *Earth System Dynamics*, 11(1), 251-266.
20. **Mazzoleni, M.**, Brandimarte, L. and Amaranto, A. (2019) Evaluating precipitation datasets for large-scale distributed hydrological modelling, *Journal of Hydrology*, 578, 124076, <https://doi.org/10.1016/j.jhydrol.2019.124076>.
19. **Mazzoleni, M.**, Amaranto, A., and Solomatine, D.P. (2019). Integrating qualitative flow observations in a lumped hydrologic routing model, *Water Resources Research*, 55, 6088–6108. <https://doi.org/10.1029/2018WR023768>.
18. D'Oria, M., **Maranzoni, A.**, and Mazzoleni, M. (2019). Probabilistic assessment of flood hazard due to levee breaches using fragility functions. *Water Resources Research*, 55, 8740– 8764.
17. Blöschl, et al. (2019) Twenty-three unsolved problems in hydrology (UPH) – a community perspective, *Hydrological Sciences Journal*, 64:10, 1141-1158.
16. Lund, N.S.V., Madsen, H., **Mazzoleni, M.**, Solomatine, D. and Borup, M. (2019) Assimilating flow and level data into an urban drainage surrogate model for forecasting flows and overflows, *Journal of Environmental Management*, 248.
15. Okoli, K., **Mazzoleni, M.**, Breinl, K. and Di Baldassarre, G. (2019) A systematic comparison of statistical and hydrological methods for design flood estimation. *Hydrology Research*, 50 (6): 1665–1678. doi: <https://doi.org/10.2166/nh.2019.188>.
14. Okoli, K., Breinl, K., **Mazzoleni, M.** and Di Baldassarre, G. (2019) Design Flood Estimation: Exploring the Potentials and Limitations of Two Alternative Approaches. *Water*, 11, 729.
13. Bhattacharya B., **Mazzoleni M.**, and Ugay, R. (2019) Flood Inundation Mapping of the Sparsely Gauged Large-Scale Brahmaputra Basin Using Remote Sensing Products, *Remote Sensing*, 11, 501.
12. Mard, J., Di Baldassarre G., and **Mazzoleni M.**, (2018) Nightlight data unravel how flood protection shapes human proximity to rivers, *Science Advances*, Vol. 4, no. 8, eaar5779, DOI: 10.1126/sciadv.aar5779.
11. Di Baldassarre, G., Kreibich, H., Vorogushyn, S., Aerts, J., Arnbjerg-Nielsen, K., Barendrecht, M., Bates, P., Borga, M., Botzen, W., Bubeck, P., De Marchi, B., Llasat, C., **Mazzoleni, M.**, Molinari, D., Mondino, E., Mård, J., Petrucci, O., Scolobig, A., Viglione, A., and Ward, P. J. (2018) Hess Opinions: An interdisciplinary research agenda to explore the unintended consequences of structural flood protection, *Hydrol. Earth Syst. Sci.*, 22, 5629–5637, <https://doi.org/10.5194/hess-22-5629-2018>.
10. **Mazzoleni M.**, Cortes Arevalo V.J., Wehn U., Alfonso L., and Solomatine D.P. (2018) Exploring the influence of citizen involvement on the assimilation of crowdsourced observations: a modelling study based on the 2013 flood event in the Bacchiglione catchment (Italy), *Hydrol. Earth Syst. Sci.*, 22, 391-416.
9. **Mazzoleni M.**, Chacon-Hurtado J., Noh S.J., Seo D.J., Alfonso L., and Solomatine D.P. (2018) Data assimilation in hydrologic routing: impact of sensor placement on flood prediction, *Journal of Hydrological Engineering*.
8. **Mazzoleni M.**, Noh S.J., Lee H., Liu Y., Seo D.J., Amaranto, A., Alfonso, L., and Solomatine D.P. (2018) Real-time assimilation of streamflow observations into a hydrologic routing model: Effects of different model structures and updating methods, *Hydrological Science Journal*, 1-22, doi: 10.1080/02626667.2018.1430898.
7. Kreibich H., Di Baldassarre G., Vorogushyn S., Aerts J.C.J.H., Apel H., Aronica G.T., Arnbjerg-Nielsen K., Bouwer L.M., Bubeck P., Caloiero T., Chinh D.T., Cortes M., Gain A.K., Giampa V., Kuhlicke C., Kundzewicz Z.W., Llasat M.C., Mard J., Matczak P., **Mazzoleni M.**, Molinari D., Dung N.V., Petrucci O., Schroter K., Slager K., Thielen A.H., Ward P.J., and Merz B. (2017) Adaptation to flood risk – results of international paired flood event studies, *Earth's Future*, 5: 953–965. doi:10.1002/2017EF000606.

6. **Mazzoleni M.**, Veerlan M., Alfonso L., Monego M., Norbiato D., Ferri M., and Solomatine D.P. (2017) Can assimilation of crowdsourced streamflow data in hydrological modelling improve flood prediction?, *Hydrology and Earth System Sciences*, 21, 839–861, doi:10.5194/hess-21-839-2017.
5. **Mazzoleni M.**, Alfonso L. and Solomatine D.P. (2017) Influence of spatial distribution of sensors and observation accuracy on the assimilation of distributed streamflow data in hydrological modelling, *Hydrological Sciences Journal*, 62(3), 389–407.
4. **Mazzoleni M.**, Dottori F., Brandimarte L., Tekle S. and Martina M. (2017) Effects of levee cover quality on flood mapping in case of levee breach due to overtopping, *Hydrological Sciences Journal*, 62(6), 892–910.
3. **Mazzoleni M.**, Alfonso L., Chacon-Hurtado J.C. and Solomatine D.P. (2015) Assimilating uncertain, dynamic and intermittent streamflow observations in hydrological models, *Advances in Water Resources*, 83, 323–339.
2. **Mazzoleni M.**, Barontini, S., Ranzi, R., and Brandimarte, L. (2014). Innovative Probabilistic Methodology for Evaluating the Reliability of Discrete Levee Reaches Owing to Piping, *J. Hydrol. Eng.*, 10.1061/(ASCE)HE.1943-5584.0001055.
1. **Mazzoleni M.**, Bacchi, B., Barontini, S., Di Baldassarre, G., Pilotti, M., and Ranzi, R. (2014). Flooding Hazard Mapping in Floodplain Areas Affected by Piping Breaches in the Po River, Italy, *J. Hydrol. Eng.*, 19(4), 717–731.

Participation in international conferences and chairmanship positions

2016 -2021, Chairman of the Hydroinformatics Sub-Division, EGU General Assembly.
 2016-now, Associate Editor for International Journal of River Basin Management.
 2020, Guest Editor of the Special Issue "Flood Risk in the Anthropocene" on Water MDPI Journal.
 2014-now, Convener and Co-convener of the following EGU General Assembly Scientific sessions: "Hydroinformatics: computational intelligence, systems analysis, optimisation, data science, and innovative sensing techniques", "Innovative sensing techniques for water monitoring, modelling, and management: Satellites, gauges and citizens", "Hydroinformatics: computational intelligence, systems analysis, optimisation, data science and data-driven modelling of social-hydrologic systems"
 2014-now, Convener and Co-convener of the following EGU General Assembly Short courses: "Hydroinformatics: Large-scale hydrological modelling", "Hydroinformatics: Bayesian statistics in Hydrology", "Hydroinformatics for hydrology: uncertainty analysis", "Hydroinformatics for Hydrology: extreme value modelling", "Hydroinformatics for hydrology: geostatistical modelling", "Hydroinformatics for hydrology: introduction to data science including data assimilation".

Awards

2019, Travel Award Grand, The ÅForsk Foundation (15000SEK).
 2016, Outstanding contribution in reviewing – Journal of Hydrology.
 2012, Best PhD presentation during the PhD symposium at *IHE Delft*.

Reviewer experiences/expert assignments

Referee assignments for journals:

Sciences, Nature Communication, PNAS, Communications Earth & Environment, Reviews of Geophysics, Water Resources Research, Hydrological Sciences Journal, Journal of Hydrology, Environmental Research Letters, Earth's Future, ICE: Water Management, Hydrology and Earth System Sciences, Scientific Reports, Advances in Water Resources, Geophysical Research Letters, Earth System Dynamics, Journal of Marine Science and Engineering, Natural Hazards and Earth System Sciences, Journal of Hydrology: Regional Studies, Natural Hazard, Remote Sensing, Journal of Flood Risk Management, Reliability Engineering and System Safety, PLOS ONE (1), Water (2), Journal of Flood Risk Management, Natural Hazards and Earth System Sciences.

Teaching and supervisory experience

Coordination and teaching in MSc courses

2023-now: *Vrije Universiteit Amsterdam*, Amsterdam; Water Extremes: Risks and Solutions (coordinator), Measuring Techniques in Hydrology (fieldwork, coordinator), Research design.
 2021-2023: *Vrije Universiteit Amsterdam*, Amsterdam; Water and Climate Systems (coordinator), Multidisciplinary Uncertainties and Risk (co-coordinator), Global Sustainability Analysis

(coordinator).

2019-2021: *Uppsala University*, Uppsala; Hydrological Processes, Runoff, Groundwater and surface water modelling, Water and Society, Introduction to Water Engineering.

2013-2018: *IHE Delft*; Hydroinformatics: Modelling and Information Systems for Water Management, Computational Intelligence and Operational Water Management, Numerical methods, Modelling Theory and Computational Hydraulics, Modelling and operation of river systems, River structures, International Fieldtrip and Fieldwork.

PhD Supervision

1. Shivang Pandey from Karolinska Institutet (Sweden): Health impacts of hydroclimate extremes. Ongoing
2. Fredrik Schüek from KTH (Sweden): Modelling the feedback between organisations' water management and hydrological hazards in a Swedish catchment. Ongoing
3. Benedetta Sestito from Vrije Universiteit Amsterdam: Unravelling vulnerability dynamics under natural hazards in Europe using machine learning. Ongoing.
4. Lars de Graaff from Vrije Universiteit Amsterdam: Limited water in a water-rich country: Adapting to droughts by upscaling private and collective water storage measures in the Netherlands. Ongoing.
5. Lotte Muller from Vrije Universiteit Amsterdam: Climate services, behavioural responses and human-water feedbacks. Ongoing.
6. Riccardo Biella from Uppsala University: Integrating climate services in the adaptation of socio-ecological systems. Ongoing.
7. Sara Alonso Vicario from Arizona State University (USA): Human Influences on the Hydrological Cycle: From Flows to Management. Graduated 2025
8. Kenekwue Okoli from Uppsala University: Design flood estimation under uncertainty. Graduated 2019.
9. Maria Clara Fava from University of Sao Paulo: Integrated Model for Flood Forecasting Based on Network of Wireless Sensors, Voluntary Data and Hydrometeorological Radar. Six months visiting period at IHE-Delft. Graduated 2019.
10. Nadia Lund from Technical University of Denmark: Optimized real-time management of interacting water systems for a smarter city. Four months visiting period at IHE-Delft. Graduated 2019.

MSc Supervision

Over the past 5 years, I have supervised more than 50 MSc students (more than 30 as Main Supervisor) and 5 BSc student in the development of their MSc thesis (45 credits) or interest on Water Resources Management at Vrije Universiteit Amsterdam, Water Science and Engineering at Uppsala University and IHE-Delft Institute for Water Education, Delft and other university, such as University of Bologna (Italy), KTH (Sweden), University of Bari (Italy), Politecnico di Milano (Italy), University of Twente (the Netherland) and University of Parma (Italy).

Assignments as a faculty examiner

- Examiner of MSc and BSc theses at Vrije Universiteit Amsterdam, since 2021
- Examiner of MSc theses at Uppsala University, since 2019.
- Examiner of MSc theses in Hydroinformatics and Water Science and Engineering at IHE Delft, from 2013 to 2018.

Administration and management of teaching

2023-, Programme committees of the Hydrology MSc at VU Amsterdam

2021-, Thesis coordinator of the Water and Climate Risk Department, since 2021

2017-2018, PhD coordinator at *IHE Delft*.

2017, Coordinator of the International Fieldtrip for the Hydroinformatics students, IHE Delft.

2018, Initiator and Coordinator of the International Short Course on “Data Assimilation for Operational Hydrological Forecasting”.

2018, Initiator and Coordinator of the International Short Course on “Google Earth Engine for spatio-temporal analysis of hydrological extremes”.

Projects

Awarded projects

- Vrije Universiteit Amsterdam and Twente University Alliance (Netherlands): Modelling future outbreaks risk of West Nile virus in the Netherlands under changing climate (2 partners), PI
- FORMAS Research Project (Sweden): DATE – Dynamic Adaptation to Temporally compound hydroclimate Extremes: supporting a sustainable transformation under global changes (4 partners), WP leader.
- HORIZON-MISS-2021-CLIMA-02-01, Research and Innovation Actions: CLIMAAX: CLIMAt risk and vulnerability Assessment framework and toolboX (19 partners), WP leader.
- H2020-LC-GD-2020, Research and Innovation Actions: I-CISK: Innovating Climate Services Through Integrating Scientific and Local Knowledge (13 partners), WP leader.

Project participation

2022-: Dutch funding agency NWO UPWAS project (as supervisor of a PhD student)
2021-: ERC PerfectSTORM (as Advisory Team member at Vrije Universiteit Amsterdam)
2018-2021: ERC HydroSocialExtremes (as Postdoc and Researcher at Uppsala University)
2018-2021: Swedish research council Project Trampoline (as Researcher at Uppsala University).
2016-2018: EU H2020 GroundTruth 2.0 (as Postdoc at IHE-Delft).
2016-2018: BPutra Project (as Postdoc at IHE-Delft).
2012-2016: EU FP7 Project WeSenseIt (as PhD researcher at IHE-Delft).
2010-2012: EU FP7 Project KULTURisk (as Research fellow at University of Brescia).

Personal competences

Computer skills

Strong background in using scripting languages such as Matlab, Python and R.
Strong background in complex system modelling like system dynamics and Agent-based models.
Strong background in global and large-scale socio-hydrological datasets analysis using Google Earth Engine and GIS.
Strong background in data assimilation methods coding, such as nudging methods, Kalman filter, Ensemble Kalman filter, Particle filter.
Experienced user of distributed hydrological (HBV, PCRaster, HEC-HMS) and hydrodynamic models (HEC-RAS, LISFLOOD-FP, MIKE11).

General skills

Ability to work in an interdisciplinary environment.
Writing and presenting technical reports acquired during intensive involvement in the different international projects and by teaching at post graduate level in an international context.
Ability to work to project deadline under pressure and meet deadlines, shown in the involvement in the EU projects.
Experience in developing teaching material.
Excellent skills to establish and maintain good working and interpersonal relations in a multi-cultural and interdisciplinary atmosphere.
Excellent experience in projects or team management.

Amsterdam 01/10/2025

