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## PROFILE

I am a motivated person who loves to work with teams of other amazing people to push the limits of science, especially in the field of water resources. I deal with projects that require the involvement of programming skills as well as relational and organizational competences. My goal is to contribute to society and the scientific community in terms of developing strategies to manage water quality.

## PROGRAMMING

- MATLAB
- R
- Python
- Fortran

## SOFTWARE

- AutoCAD, Straus7
- LaTeX
- QGIS, ArcGIS, GRASSGIS, SAGA GIS
- GEOSTUDIO

## LANGUAGES

- Italian (native)
- English (proficient)
- French (intermediate)
- Spanish (intermediate)
- German (elementary)

# ARIANNA BORRIERO

PhD. Candidate at Helmholtz-Centre for Environmental Research – UFZ

## EDUCATION

**Master of Science in Environmental Engineering** October 2017 – April 2020  
*Università degli Studi di Padova, Padua, Italy*

- Cumulative Grade Average: 109/110
- Main competences: Design of structures for the environmental protection, Environmental hydraulics, Environmental fluid mechanics, GIS, Modelling and control of the environmental systems, River engineering, Wastewater treatment, Water resources management

**Bachelor of Science in Environmental and Land Planning Engineering** September 2014 – September 2017  
*Università degli Studi di Padova, Padua, Italy*

- Cumulative Grade Point Average: 94/110
- Main competences: Environmental law, Environmental quality management, Environmental sanitary engineering, Hydrology, Hydraulics, Transport phenomena, Urban drainage and water supply

## PROFESSIONAL EXPERIENCE

**PhD Candidate** June 2020 – Present  
*Helmholtz-Centre for Environmental Research - UFZ, Leipzig, Germany*

- Research activity in the Department of Hydrogeology
- Investigation of solute transport, turnover and reactivity from various sub-catchments in the Bode region (DE) using stable water isotopes and dynamic water transit time distributions
- Modelling of solutes transport and water transit times via StorAge Selection functions
- Uncertainty analysis in water transit times coming from forcing data and model parameterization
- Young water fractions analysis

**Master Thesis Project** September 2019 – February 2020  
*Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland*

- Writing of the Master thesis at the Laboratory of Ecohydrology (ECHO) on the variability of the major ions concentration in the river Mèbre (CH) investigated with electrical conductivity
- Field collection of water samples during baseflow and runoff events
- Chemical analysis of main ions with ion chromatography
- Numerical modeling to simulate ion concentration using sub-daily electrical conductivity time series

**Intern** March – July 2017  
*Environmental Sanitary Engineering Laboratory - LISA, Padua, Italy*

- Support activity for analysis, realization and management of laboratory and pilot scale plants for research and experimentation activities
- Topics of the projects: water quality, sludge, solid waste and contaminated land