Andrea BETTERLE

PERSONAL DATA

PLACE AND DATE OF BIRTH:	Camposampiero (Padova), Italy - 20 June 1988
ADDRESS:	Benedikt Fontana Weg 17 , 8049, Zürich, Switzerland
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EDUCATION

APRIL 2015   PHD POSITION NO. 15, MARIE SKLODOWSKA-CURIE ITN HYPOTRAIN

APRIL 2015   PhD Candidate
SWISS FEDERAL INSTITUTE OF AQUATIC SCIENCE AND TECHNOLOGY (EAWAG)
Department of Water Resources and Drinking Water,
Dübendorf, Zürich (Switzerland)
Supervisor: Prof. Mario SCHIRMER
Advisor: Prof. Gianluca BOTTER

NOVEMBER 2014   Italian State Exam to practice as Civil-Environmental engineer.

OCTOBER 2014   Master degree in ENVIRONMENTAL ENGINEERING,
University of Padova, Padova (Italy)
Thesis: "Water Balance Modeling In The Eastern United States"
Topic: Hydrology
Advisor: Prof. Gianluca BOTTER
Final Grade: 110/110

2012/2013   Exchange Year
University of Natural Resources and Life Sciences (BOKU)
Vienna (Austria)

JULY 2012   Bachelor Degree in ENVIRONMENTAL ENGINEERING
University of Padova, Padova (Italy)
Thesis: "Subsidence Limitation In The Mobile Gates System In Venice "
Topic: Geotechnics
Advisor: Paolo CARRUBBA
Final Grade: 96/110

JULY 2007   Diploma from **Liceo Scientifico "G. B. Quadri"**, Vicenza (Italy)
Final Grade: 88/100

EXPERIENCES AND RESEARCH INTERESTS

Development and application of analytical and numerical models aimed to address large scale ecohydrological and socially relevant environmental issues.

Experience in groundwater and surface water monitoring, partly gathered in the field during the 2 joint field experiments conducted within the EU's ITN Hypotrain.

Publications

Betterle A., Schirmer M., Radny D., Botter G., (2017), **What do they have in common? Drivers of streamflow spatial correlation and prediction of flow regimes in ungauged locations** , *Water Resources Research,* doi:10.1002/2017WR021144

Doulatyari B., **Betterle A.**, Radny D., Alessi Celegon E., Fanton P., Schirmer M., Botter G., (2017), **Patterns of streamflow regimes along the river network: The case of the Thur river**, *Environmental Modelling & Software,* doi:10.1016/j.envsoft.2017.03.002

Betterle A., Schirmer M., Botter G., (2017), **Characterizing the spatial correlation of daily streamflows**, *Water Resources Research,* doi:10.1002/2016WR019195

Doulatyari B., **Betterle A.**, Basso S., Biswal B., Schirmer M., Botter G., (2015), **Predicting stream-flow distributions and flow duration curves from landscape and climate**, *Advances in Water Resources,* doi:10.1016/j.advwatres.2015.06.013

Conference Contributions

11-15 December 2017 - New Orleans
American Geosciences Union General Assembly, AGU
What Do They Have in Common? Physical Drivers of Streamflow Spatial Correlation and Prediction of Flow Regimes at Ungauged Locations in the Contiguous United States (Poster Presentation)

23-28 April 2017 - Vienna
European Geosciences Union General Assembly, EGU
Characterizing the spatial correlation of streamflows (Oral + Poster Presentation)

12-16 December 2016 - San Francisco
American Geosciences Union General Assembly, AGU
Spatial Correlation Of Streamflows: An Analytical Approach (Poster Presentation)

17-22 April 2016 - Vienna
European Geosciences Union General Assembly, EGU
Analytical characterization of the spatial correlation of streamflows (Oral Presentation)

Awards

Best poster award: Characterizing the spatial correlation of daily streamflows
ETH catchment transport processes summer school (organizers: P. Burlando, J. Kirchner)

Courses and Schools

Advanced Statistics and Data Analysis - University of Padova - 12-23 March 2018
COMSOL App Builder Workshops - ETH Zurich - 27 February 2018
Summer school: Catchment transport processes - ETH Zurich 2-7 July 2017
Summer school: Principles of catchment-scale hydrological modelling - University of Salento, Lecce - 26-30 June 2017
Summer school: Environmental tracers - University of Neuchatel - 31 May -2 June 2017
River restoration and soil bioengineering - University of Barcelona - 30 Gen-1 Feb 2017
Scientific writing - EAWAG Zurich - 15-16 Sept 2016
Summer school: Runoff Prediction in ungauged basins - TU Vienna 4-8 July 2016
Coupled stream-groundwater modeling - UFZ Leipzig - 27-29 Jan 2016
Communicating Science To Stakeholders - UFZ Leipzig - 25-26 Jan 2016
Sampling and measurement techniques, Designing experiments in the hyporheic zone - University of Birmingham - 2-6 Nov 2015

Modeling hyporheic processes - KTH Stockholm - 28-30 Oct 2015
The challenge of communicating in science - University of Stockholm - 26-27 Oct 2015
Advanced Analysis with ModelBuilder in ArcGis - ETH Zurich - 16 Sept 2015

Informatic Skills

Good skills in :   Microsoft Office Suite (ECDL certificate), AutoCAD (certificate),
ArcGIS, LATEX, Matlab, Adobe Photoshop, GeoStudio,
Hec-RAS, Straus7, Linux (Ubuntu), SPSS, Mathematica,
Adobe Illustrator, FORTRAN, C++, R, Modflow, COMSOL.

Other Scholarly Activities

Reviewer for:
Geophysical Research Letters
Hydrological Processes

Interests and Activities

Music, Technology, Reading, Philosophy, History, Sailing, Cycling and Bikes,
Skiing, Physics, Photography, Cars & Motorbikes, Animals (especially Dogs),
Tennis, Table Tennis, Traveling, Running, Cinema,
Environment and Environmental policies.

Languages

Italian: Mother-tongue
English: Fluent
German: Good
Spanish: Basic

Other

European B driving license

Contacts For References

Prof. Gianluca Botter
Department of Civil, Environmental and Architectural Engineering (ICEA)
University of Padua, Italy
gianluca.botter@unipd.it

Prof. Mario Schirmer
Department Water Resources and Drinking Water
EAWAG, Switzerland
mario.schirmer@eawag.ch

Transcript of Records

Master Degree in ENVIRONMENTAL ENGINEERING, UNIVERSITY OF PADOVA

EXAM	CREDIT ECTS
Geology and Geochemistry	6
Waste Water Treatment	9
River Engineering	9
Soil Protection: Project Work	6
Environmental Geotechnics	6
Coastal Management and Protection	6
Groundwater Hydrology	6
Design Of Structures For Environmental Protection	6
Master Thesis	24
Total	78

Exchange Year at UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES (BOKU), VIENNA

EXAM	CREDIT ECTS
Computing Seminar On Hydraulics And Rural Water Management	4.5
Computer Based River Modeling	3
Soil Water Management	3
Seminar In Environmental Biotechnology	3
Risk Management And Vulnerability Assessment	3
Ecologically Oriented Methods And Monitoring In River Engineering	3
Game Theory In Environmental And Natral Resource Management	3
Water Resources Planning And Management	3
Statistical And Numerical Methods In Water Management	3
Remote Sensing And GIS In Natural Resources Management (Practical)	3
Remote Sensing And GIS In Natural Resources Management (Theoretical)	3
Integrated Flood Risk Management	3
Planning And Design In Water Supply And Waste Water Treatment	3
Application Of GIS In Hydrology And Water Management	3
Atmospheric Pollution And Climate Change	3
Statistical Data Analysis With SPSS	3
GIS In Riverscape Planning	2
Statistical Data Analysis With SPSS	3
Landslide Risk Assessment And Zoning	2
Irrigation Design	3
Biology, Chemistry And Microbiology For Civil Engineering	3
Total	59.5

Bachelor Degree In Environmental Engineering, University of Padova

Exam	Credit ECTS
English Language	2
Calculus 1 *	7
Calculus 2 *	7
Calculus 3 *	7
Mathematics For Physics *	8
Mathematical Methods *	5
Computer Science For Physics *	4
Physics 1 *	7
Physics 2 *	7
Physics 3 *	7
Physics 5 *	4
Laboratory Of Physics 1 *	5
Laboratory Of Physics 2 *	4
Laboratory Of Physics 3 *	4
Laboratory Of Physics 4 *	5
Laboratory Of Physics 1 *	6
Fluid Dynamics *	5
Linear Algebra And Geometry	9
Chemistry	12
Technical Drawing	6
Hydrology	5
Hydraulics	12
Building Science	12
Thermal Physics And Heat Transfer	6
Elements Of Biology And Microbiology	6
Numerical Calculus	9
Transport Phenomena	6
Environmental Sanitary Engineering	12
Geotechnics	12
Bachelor Thesis	3
Total	204

A star (*) indicates that the course was taken at the
Department Of Physics GALILEO GALILEI, Padova, Italy