

Johannes Brenner

Geoecology

Johannes Brenner
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Professional career

2016–2019

Research Assistant / Ph.D. Candidate, *Department of Computational Hydrosystems*, Helmholtz Centre for Environmental research (UFZ), Leipzig.

Model verification with cosmic ray neutron sensing and eddy covariance data in semi-arid regions. Supervision: Sabine Attinger, Luis Samaniego, Martin Schrön.

2014–2016

Junior Research Assistant, *Institute for Alpine Environment*, European Academy (EURAC), Bozen/Bolzano.

Eco-hydrological simulations with GEOTOP and SWAT, eco-hydrologic climate impact studies at catchment scale, data management, organisation/realisation of field work (LTsER site Matsch/Mazia).

2011–2014

Scientific Assistant, *Institute of Earth and Environmental Science, Working Group Hydrology and Climatology*, University of Potsdam.

Installation and maintenance of a micro-rain radar (Sölden, Austria), contribution to an open source library for processing weather radar data (wradlib), data analysis (R), literature review (Mendeley).

Education | Academic Training

2016–2019

Helmholtz Interdisciplinary Graduate School for Environmental Research (HIGRADE), *Helmholtz Centre for Environmental research - UFZ*, Leipzig.

Participation in the following courses: Good Scientific Practice, Time and Self Management for PhDs, Spatial Statistics, Effective Graphics and Visualization, Optimization Techniques, Time Series Analysis using R.

2019

Teaching Experience “Innovative Field Methods”, *Institute of Earth and Environmental Science*, University of Potsdam, Harz mountains.

Bachelor course on innovative methods for monitoring the terrestrial water cycle (2 weeks).

2015

SummerSchool “Facing Natural Hazards”, *IASS*, Potsdam.

hosting institutions: IASS, PIK, GFZ, AWI, University of Potsdam

2015

MasterClass “Climate Services”, *European Academy (EURAC)*, Bozen/Bolzano. organized within the EUPORIAS project.

2011–2014

Master’s programme Geoecology, *Institute of Earth and Environmental Science*, University of Potsdam, Graduation with distinction (1.2).

Thesis: “Spatial variability and temporal trends of soil moisture and evapotranspiration in an inneralpine dry catchment”. Supervision: Prof. Dr. Axel Bronstert & Dr. Giacomo Bertoldi.

2011

Internship, *Potsdam Institute for Climate Impact Research (PIK)*, Potsdam.

Processing and analysis of climate and land use data as input for the Dynamic Global Vegetation Model LPJ with the statistic computing language R. Supervision: Dr. Kirsten Thonike.

2010

Field Work, *Institute of Earth and Environmental Science, University of Potsdam*, in cooperation with the *Universidad Austral de Chile (Valdivia)*, Nacimiento (Chile).

Determining soil hydraulic (e.g. hydraulic conductivity), terrain and vegetation characteristics in a forest catchment for parametrisation of the hydrological model WASA-Sed. Funded by DAAD scholarship “Thesis abroad”.

2009

Tutor “Mathematics for Geoecologists”, *Institute of Earth and Environmental Science*, University of Potsdam.

2007–2011

Bachelor’s programme Geoecology, *Institute of Earth and Environmental Science*, University of Potsdam.

Thesis: “Modelling of sediment transport in a deforested catchment with WASA-Sed (Nacimiento, Chile)”. Supervision: Prof. Dr. Axel Bronstert & Dr. Christian Mohr. Funded by DAAD scholarship “Thesis abroad”.

Skills

IT applications and development

HydroModels	mHM, GEOtop, SWAT, WASA-Sed	Geoinfo	QGIS, GRASS, SAGA, ArcGIS
DataAnalysis	R	Programming	Fortran
Operating Systems	GNU/Linux, Apple Mac	Tools	SVN, Git, Mendeley
Office	LibreOffice, MicrosoftOffice, Inkscape	Edition	L ^A T _E X, Markdown

Languages

German	Native	<i>Mother Tongue</i>
English	Fluent	<i>Daily practice, scientific writing</i>
French	B1 Level	<i>Studied 5 years in school</i>
Italian	A2 Level	<i>Lived 3 years in South Tyrol (Italy)</i>

Participation in Research Projects

2014–2016

MONALISA, “*Monitoring key environmental parameters in the alpine environment involving science, technology and application*”.

Junior Researcher responsible for eco-hydrological modeling for different land uses (apple orchards, Alpine grassland - meadow and pasture), data management and analysis.

2014–2016

HiResAlp, “*An innovative framework for the integration of multi-source data to determine soil moisture and evapotranspiration at high resolution in Alpine regions*”.

Junior Researcher responsible for field activities and point-scale/distributed eco-hydrological modeling in the LTsER site Mazia/Matsch.

2013–2014

HydroAlp, “*Modelling the interactions between water cycle, vegetation and climate in Alpine Environments*”.

Master Student responsible for climate change impact assessment with the hydrological model GEOtop, results available via WEB-GIS.

Publications & Conference Proceedings

2019

Brenner J, Genova G, Bertoldi G, Niedrist G, Della Chiesa S, *SWCalibrateR: Interactive, web-based calibration of soil moisture sensors.*, Journal of Open Research Software, 7(1), p.20, <http://doi.org/10.5334/jors.254>.

2019

Brenner J, Schrön M, Thober S, Rakovec O, Kumar R, Pan M, Wanders N, Samaniego L, *Multi-model verification of evapotranspiration in the Iberian Peninsula.*, Geophysical Research Abstracts, Vol. 21, 2019, European Geosciences Union, General Assembly 2019 - Vienna, Austria, 07–12 April 2015 (talk).

2018

Brenner J, Schrön, Thober S, Rakovec O, Kumar R, Samaniego L, *Towards reliable evapotranspiration estimates over the Iberian Peninsula.*, Geophysical Research Abstracts, Vol. 20, 2018, European Geosciences Union, General Assembly 2018 - Vienna, Austria, 07–12 April 2018 (pico talk).

2017

Brenner J, Zink M, Schrön M, Thober S, Rakovec O, Cuntz M, Merz R, Samaniego L, *Towards reliable ET estimates in the semi-arid Júcar region in Spain.*, Geophysical Research Abstracts, Vol. 19, 2017, European Geosciences Union, General Assembly 2017 - Vienna, Austria, 08–13 April 2017 (poster).

2014

Brenner J, Bertoldi G, Della Chiesa S, Niedrist G, Tappeiner U, Bronstert A, *Modeling impacts of climate change on evapotranspiration and soil moisture spatial patterns in an alpine catchment*, Geophysical Research Abstracts, Vol. 16, 2014, European Geosciences Union, General Assembly 2014, Vienna, Austria, 27 April–2nd May 2014 (talk).

References

- 1 **Prof. Dr. Axel Bronstert**, *Institute of Earth- and Environmental Sciences*, University of Potsdam, Axel.Bronstert@uni-potsdam.de.
- 2 **Dr. Giacomo Bertoldi**, *Institute for Alpine Environment*, European Academy (EURAC), Bozen/Bolzano, Giacomo.Bertoldi@eurac.edu.