

Johannes Brenner

Junior Researcher | Eco-Hydrology

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Driving License

Education | Academic Training

2015

SummerSchool, “Facing Natural Hazards”, Potsdam.

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

2015

MasterClass, “Climate Services”, European Academy (EURAC), Bozen/Bolzano.

organized within the EUPORIAS project.

2014

Junior Research Assistant, EURAC, Institute for Alpine Environment, Bozen/Bolzano .

eco-hydrological simulations with GEOTop and SWAT, eco-hydrologic climate impact studies at catchment scale, data management (R and MySQL), 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).

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”. Supervised by Prof. Axel Bronstert & Dr. Giacomo Bertoldi (Institute for Alpine Environment, EURAC research, Bozen).

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.

2010

Field Work, Nacimient, Chile.

Determining soil hydraulic (e.g. hydraulic conductivity), terrain and vegetation characteristics in a forest catchment for parametrisation of the hydrological model WASA-Sed.

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 (Nacimient, Chile)” Supervised by Prof. Axel Bronstert & Dr. Christian Mohr (Institute of Earth and Environmental Science, University of Potsdam). Funded by DAAD scholarship “Thesis abroad”.

Skills

IT applications and development

HydroModels GEOTop, SWAT, WASA-Sed

DataAnalysis R, Concave

Databases SQLite (RSQLite)

Operating Systems GNU/Linux (Ubuntu, RedHat), Windows

Office LibreOffice, MicrosoftOffice, Inkscape

Geoinformation QGIS, GRASS, SAGA, ArcGIS

Programming Python, Fortran

Formats NetCDF

Tools GitHub, Mendeley, Overleaf

Edition L^AT_EX

Foreign Languages

German **Native**

English **Fluent**

French **B1 Level**

Italian **A2 Level**

Mother Tongue

Daily practice, scientific writing

Studied 5 years in school

Lived 3 years in South Tyrol (Italy)

Participation in Research Projects

2014

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

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

2015

Bertoldi G, Brenner J, Notarnicola C, Greifeneder F, Nicolini I, Della Chiesa S, Niedrist G, Tappeiner U, *Monitoring soil moisture patterns in alpine meadows using ground sensor networks and remote sensing techniques.*, Geophysical Research Abstracts, Vol. 17, 2015, European Geosciences Union, General Assembly 2015 - Vienna, Austria, 12 – 17 April 2015 (poster).

2014

Brenner J, Bertoldi G, Della Chiesa S, Niedrist G, Tappeiner U, Bronstert A, *Modellazione degli impatti del cambiamento climatico sulla distribuzione spaziale dell'evapotranspirazione, dell'umidità del terreno e del manto nevoso in una vallata alpina*, Atti del XXXIV Convegno Nazionale di Idraulica e Costruzioni Idrauliche, Bari, 07 – 10 Sept 2014.

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).

2012

Brenner J, Faul F, Ittner S, Scheffele L, Schlingmann A, Voß S, Weißhuhn P and Zoerner M (2012), *Ecosystem Services from Agro- and Forest Ecosystems*, openLandscape Wiki, Leibniz Centre for Agricultural Landscape Research (ZALF).

References

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