

Curriculum Vitae



Christian Möck

Born March 7, 1983 in Germany

Permanent relationship, 2 Children (Born 2011 and 2015)

Citizenship: German

Contact and Address

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Research Interests

- Water resource management and protection
- Urban and contaminant hydrogeology
- Groundwater recharge and changes due to land use and climate change
- Numerical groundwater flow, transport and heat modelling
- Characterization of aquifer heterogeneity with field experiments and inverse modelling approaches
- Water quality and environmental impact assessment using established and novel (innovative) environmental tracers and methods
- Large-scale water balance calculation and applied geology

Academic Qualification

- 2010 - 2014 **PhD in Hydrogeology**
Université de Neuchâtel, Switzerland
Advisor: Prof. Daniel Hunkeler & Prof. Philip Brunner
Thesis: Evaluating the effect of climate change on groundwater resources: from local to catchment scale
- 2007 - 2009 **International M.Sc. in Hydrogeology and Environmental Science**
Georg August University Göttingen, Germany
Advisor: Dr. Ralf Brauchler & Prof. Thomas Ptak
Thesis: Characterization of spatial variability of hydraulic subsurface parameters: Hydraulic field testing and numerical modelling
- 2004 - 2007 **B.Sc. in Geoscience**
Georg August University Göttingen, Germany
Advisor: Prof. Gernot Arp & Dr. Andreas Reimer
Thesis: Hydrochemistry and biofilm calcification: Westhöfer Bachs, western Harz mountain

Working experience

- 2020 - present **Eawag and project manager of the Swiss groundwater network platform (CH-GNet; building and management) – 80% employed, childcare**
Eawag, Swiss Federal Institute of Aquatic Science and Technology, ETH domain
- 2019 - 2020 **Nagra – Project leader Hydrogeology - 80% employed, childcare**
Nagra, National Cooperative for the Disposal of Radioactive Waste, Resort Geoscience Wettingen, Switzerland
- 2017 - 2019 **Eawag - Group deputy “Hydrogeology” with own funding** (Group leader during one-year Sabbatical Leave of Prof. Mario Schrimmer) – from 2018 80% employed, childcare
Eawag, Swiss Federal Institute of Aquatic Science and Technology, Department water resource and drinking water, ETH domain
- 2017 **Université Laval, Quebec – visiting fellow**
Département de géologie et de génie géologique, Quebec, Canada
Short visiting fellow, collaboration with Prof. John Molson
- 2014 - 2016 **Eawag – PostDoc**

Project “Regional Water Supply Basel-Landschaft 21”, responsible scientist for WP 3 – Drinking Water Management Hardwald
Eawag, Swiss Federal Institute of Aquatic Science and Technology,
Department water resource and drinking water, ETH domain

- 2013 **Research assistant**
University of Neuchâtel, Switzerland
- 2009 **Research assistant**
Georg August University Göttingen, Germany
- 2006 **Intern**
AWIA Umwelt GmbH, Göttingen, Germany
- 2005 – 2008 **Student assistant**
Georg August University Göttingen, Germany

Teaching

- Since 2011 Zones de protection des eaux souterraines (University of Neuchâtel, exercise for MSc students, 2011-2013 with Prof. Daniel Hunkeler and Dr. Ronald Kozel)
- Groundwater recharge estimation (University of Neuchâtel, class for MSc students, 2015, with Prof. Mario Schirmer)
- Contaminated sites and remediation (University of Neuchâtel, class for MSc students, 2015-2018, with Prof. Mario Schirmer)
- Urban Hydrogeology (University of Neuchâtel, class for MSc students, 2016-2018)

Students Supervised

Master Students

- 2023 Elizabeth Kiflay, MSc at IHE Delft, Title: Urban effects on groundwater recharge.
- 2021 Yong Wang, MSc at IHE Delft, Mentoring and examining committee, Supervisor Prof. Jewit, Title: Evaluating the Potential for Sustainable Groundwater Abstraction from the Limpopo Sand River Deposits in Mozambique.
- 2019 Maria Henao Salgado, MSc at Eawag and ETH Zuerich, with Prof. Mario Schirmer, Title: Estimating groundwater recharge rates in the upper Kempt catchment and integrating the urbanization factor in Fehrltorf, Switzerland

CURRICULUM VITAE – DR. CHRISTIAN MOECK

- 2017 Morgane Minning, M.Sc. at Eawag and University of Lausanne, with Prof. Mario Schirmer & Prof. Urs von Gunten, Title: Impact of urbanization on groundwater recharge rates in Dübendorf, Switzerland
- 2016 Andrea Popp, M.Sc. at Eawag, with Prof. Mario Schirmer, Title: Characterization of Spatial and Temporal Artificial Recharge: Field Testing and Numerical Modeling
- 2014 Konan Lambert, M.Sc. at University of Neuchâtel, 2014, with Prof. Daniel Hunkeler, Title: Etude des fluctuations piezometriques et du temps des transit des solutes la surface d'infiltration de la plaine de Wohlenschwil au capatage Frohburg

(Co-) supervised PhD Students

- 2019 Jessica Meeks, University of Neuchâtel, Mentoring, Main Supervisor: Prof. Daniel Hunkeler and Prof. Philip Brunner, Title: Groundwater recharge dynamics by snowmelt
- 2017 – until 06.2021 Nicole Burri, Eawag, with Prof. Mario Schirmer, Title: Thesis: Water Distribution: Adaptive monitoring and distributed modelling at catchment scale field methods
- 2017 – 2021 Robin Weatherl, Eawag, with Prof. Mario Schirmer, Title: Urban hydrogeology: adaptive field sampling and monitoring strategies for the Fehraltorf catchment (Switzerland)

Matura (High-school) mentoring

- 2020-2021 Yasin Barman, Canton school St. Gallen, Swiss water partnership Switzerland, Title: Effects of climate change on groundwater resources: How does spring discharge react to climate change?

Skills

- Software ESRI ArcGIS, HydroGeoSphere (HGS), Feflow, Visual Modflow, Freewat, Hydrus, HBV, WASIM-ETH, Lumprem, PEST, AQTESOLV, Phreqcc, Heatflow and Smoker (in-house codes; University of Laval), Adobe Illustrator, Microsoft Office suite
- Programming R, Matlab, Fortran, Phyton
- Field work Sampling of Volatile organic compounds (VOCs), Stable water isotopes, Lab and field-based noble gas measurements, Pumping tests, Slug-Tests (Single and Multilevel Cross-Well Slug tests), Hydraulic tomography, Geoprobe sampling and installation of piezometers, geophysical measurements

Language skills	Fluent in German, English and French
Organization skills	organizing field work, planning field constructions and experiments, project management, teaching course preparation, large-scale sampling campaigns

Scholarships/Awards

2023	Grundwasser: Editor's Choice 2022 - Eine Echtzeit-Online-Methode zur Beurteilung der künstlichen Grundwasseranreicherung und Grundwasserentnahme
2018	Best master thesis of supervised student Morgane Minning Swiss Society for Hydrogeology (SGH), Zurich, Switzerland, Title: Impact of urbanization on Groundwater recharge: The case study of Dübendorf, Switzerland
2016	Best research innovation Swiss Society for Hydrology and Limnology Prize, SwissGeoScience Meeting, Geneva, Switzerland, Title: The effects of model complexity and calibration period on groundwater recharge predictions
2010	Best poster award SwissGeoScience Meeting, Fribourg, Switzerland, Title: Groundwater shortage due to climate change

Continuous Education

2019	Project management course Nagra, Wettingen Switzerland
2017	Freewat groundwater modelling course Eawag, Dübendorf, Switzerland
2016	Feflow: Introduction and advanced topics course DHI-WASY GmbH, Berlin, Germany
2012	Estimating Rates of Groundwater, Recharge Workshop IAH, Niagra Falls, Canada
2011	Model calibration and Quantification of Predictive Uncertainty using PEST University of Neuchâtel, Neuchâtel, Switzerland

Miscellaneous

CURRICULUM VITAE – DR. CHRISTIAN MOECK

Membership	FH-DGG (Fachsektion Hydrogeologie in der Deutschen Gesellschaft für Geowissenschaften), SGH (Schweizerische Gesellschaft für Hydrogeologie), IAH (The international association of hydrogeologists), EGU Membership, ETH ₄ Development (ETH for Development)
Editor	Since 2018 Associated Editor for journal Grundwasser (Springer) Since 2020 Topic Editor for journal Water (MDPI) Reviewer board for journal Sustainability (MDPI). Members of the board are selected from all Sustainability reviewers for regularly providing timely high quality reports on submitted manuscripts.
Other activities	Gast Editor for Two Special Issue in Journal "Grundwasser" (Springer).
Review activities	Water Resource Research, Journal of Hydrology, Hydrogeology Journal, Open Geoscience, Environmental Earth Science, Water, Remote Sensing, Hydrology, Vadose Zone Journal, Science of the Total Environment, Environmental Science and Technology, Journal of Contaminant Hydrology, Hungary, Journal of Environmental Management, Sustainability Hydrological earth system science (HESS), Journal of Hydrometeorology, National Research Development and Innovation Office (NRDI)

Publication list - Christian Möck

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