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Work Experience

- 10.2022 – present **Deputy Group Leader**, Laboratory for the Analysis of Radiocarbon with AMS (LARA), University of Bern, Switzerland.
- 09.2020 – present **Senior Research Assistant (Group leader)** – SNSF Ambizione, University of Bern, Switzerland.
- 03.2020 – 08.2020 **Postdoctoral researcher** – SNSF Postdoc Mobility Fellowship Return CH grant, University of Bern, Switzerland.
- 08.2018 – 02.2020 **Postdoctoral researcher** – SNSF Postdoc Mobility Fellowship, University of Oxford, UK.
- 02.2017 – 07.2018 **Postdoctoral researcher** – SNSF Early Postdoc Mobility Fellowship, University of Oxford, UK.
- 01.2012 – 09.2016 **Research assistant** – Geological Institute, ETH Zürich, Biogeoscience group.
- 01.2010 – 12.2011 **Teaching assistant** – Department of Earth Sciences, ETH Zürich.

Education

- 01.2013 – 07.2016 **Ph.D.** - ETH Zürich, Switzerland
Dissertation title: "Characterizing the legacy of carbon in karst systems: isotopic and chronological applications on stalagmites." (Diss. ETH No. 23601)
Advisors: Prof. Timothy Eglinton, ETH Zürich
Dr. James Baldini, University of Durham
Defense date: 08. July 2016
- 09.2010 – 12.2011 **M.Sc. in Atmospheric and Climate Sciences** - ETH Zürich, Switzerland
Master's thesis: "Reconstruction of late Quaternary Indian Summer Monsoon climate from two stalagmites from Krem Mawmluh, Meghalaya, NE India"
Advisors: Dr. Sebastian Breitenbach, ETH Zürich

Prof. Gerald Haug, ETH Zürich

09.2007 – 07.2010 **B.Sc. in Earth Sciences** - University of Zürich, Switzerland

Prizes and Awards

- 2021 **COMET Career Programme of the University of Bern – 3,000 CHF**
Programme supporting female researchers in successfully pursuing their academic careers. Place allotted competitively.
- 2021 **EGU 2021 Division Outstanding Early Career Scientist Award** (Climate: Past, Present & Future Division)
Award recognises scientific achievement made by an Early Career Scientist in the field covered by the related division.
- 2017 **ETH Silver Medal** for outstanding doctoral thesis
Prize for outstanding doctoral thesis, based on the evaluation of referees, co-referees, and external referees (within 8% of all theses in the department and ETH Zürich).
- 2012 **ETH Silver Medal** for outstanding master thesis
Prize for outstanding master thesis, based on grading (6.0, i.e., highest grade), written confirmation of the quality of the thesis by the advisors, grade point average of master studies 5.25 (of 6). Within 2.5% of all theses in the department and ETH, based on originality of the thesis.

Successful Grant Applications

- 2023 Faculty of Science Open round proposal (University of Bern) to support a collaborative research stay in my group – **4,700 CHF**.
- 2023 *Fire and Carbon in an arid Karst Landscape*
National Cave and Karst Research Institute (NCKRI, USA) National Seed Grant program. Co-PI with Prof. Jessica Oster, Vanderbilt University, USA – **24,963 USD (~22,670 CHF)**.
- 2022 *Exploring the potential of the North African speleothem archive*
Research Partnership Grant, Leading House for the Middle East and North Africa (Swiss State Secretariat for Education, Research, and Innovation). Co-PI with Prof. Yassine Ait Brahim, Mohammed VI Polytechnic University, Benguerir, Morocco – **15,000 CHF**.
- 2022 *Writing4Women: Winter Writing Retreat for Female Postdocs and Young Researchers*
Fund for the Promotion of Young Researchers of the University of Bern grant. Co-PI – **5,000 CHF**.
- 2022 Swiss National Science Foundation (SNSF) Flexibility grant for additional personnel support – **45,000 CHF**.
- 2021 SNSF Flexibility grant to cover childcare costs – **24,000 CHF**.
- 2021 PAGES Data Stewardship Scholarship (12 months, funding external

- collaborators for the PAGES SISAL working group), co-PI with Dr. Nikita Kaushal – **20,000 USD (~18,160 CHF)**.
- 2019 *Probing the potential of STalagmite Organic Matter as a direct tracer for terrestrial ecosystem dynamics and their response to past Climate Change (STOM-CC)*
SNSF Ambizione Fellowship (48 months, DCBP, Univ. of Bern), PI – **950,541 CHF**.
- 2019 *Exploring the potential of stalagmite organic carbon isotope records as a novel proxy for past ecosystem conditions*
SNSF Postdoc Mobility return CH grant (12 months, Univ. of Bern), PI – **125,386 CHF**.
- 2018 *Constraining the potential of stalagmites as quantitative archives for past soil carbon dynamics*
SNSF Postdoc Mobility grant (18 months, Univ. of Oxford, UK), PI – **81,500 CHF**.
- 2016 *Permafrost thawing in a warming climate – reconstructions from Siberian stalagmites*
SNSF Early Postdoc Mobility grant (18 months, Univ. of Oxford, UK), PI – **74,250 CHF**.

Career breaks

13.12.2020 – 30.4.2021	Maternity leave
1.5.2021 – 31.10.2021	Part time work (50%)
1.11.2021 – present	Part time work (80%)

Invited Oral Conference Presentations

- 06.2023 **Invited speaker** at PAGES International symposium on past global changes: lessons for a sustainable future, Bern, Switzerland
- 06.2022 **Invited speaker** at the Young Faculty Meeting, Swiss Academy of Sciences, Platform Chemistry, Bern, Switzerland.
- 09.2021 **Keynote speaker** at GeoKarlsruhe 2021, session 5.3: “Advances in terrestrial and marine carbonate archives – novel proxies and innovative techniques to decipher past climate variability”, virtual conference.
- 04.2021 **CL Division Outstanding ECS Award Lecture** 2021, EGU, virtual conference.
- 09.2020 **Invited speaker** at the Oeschger Centre for Climate Change Research Plenary meeting, University of Bern, Switzerland.
- 10.2019 **Invited speaker** at SISAL 4 workshop: “Speleothem Isotope Synthesis and Analysis: Exploiting the SISALv2 database for evaluating climate processes” at Xi'an Jiaotong University, Xi'an, China.
- 04.2018 **Solicited speaker** in session: “Novel and quantitative methods for continental palaeoenvironmental reconstruction” at EGU, Vienna, Austria

Invited Seminar Speaker

11.2023	Department Seminar, Geo and Environmental Sciences, University of Tübingen, Germany
12.2022	House seminar, Department of Chemistry, Biochemistry and Pharmaceutical Sciences house seminar, University of Bern, Switzerland
11.2022	Geology Colloquium (departmental seminar), Department of Geology, University of Georgia, USA (<i>virtual</i>)
10.2022	Environmental Chemistry (LUC) seminar, Paul Scherrer Institut (PSI), Switzerland
05.2022	Section of Earth and Environmental Sciences seminar, University of Geneva, Switzerland
03.2022	“Climotope group” seminar, Department of Earth Sciences, University of Oxford, UK (<i>virtual</i>)
02.2021	Institute of Environmental Physics, Heidelberg University, Germany (<i>virtual</i>)
09.2020	Laboratory for Ion beam physics, ETH Zürich, Switzerland
07.2020	“Radiocarbon Universe” webinar, Penn State University, USA (link to talk: https://eesl.tee.psu.edu/radiocarbon-universe) (<i>virtual</i>)
01.2020	Department of Geography and Environmental Sciences, Northumbria University, UK
11.2019	Organic Geochemistry Unit, University of Bristol, UK
10.2019	Department of Earth Sciences, University of Lausanne, Switzerland
10.2019	State Key Laboratory of Vegetation and Environmental Change, Chinese Academy of Sciences, Beijing, China
06.2018	Laboratory for the Analysis of Radiocarbon, University of Bern, Switzerland
06.2018	Department of Earth Sciences, UCL, UK
11.2017	Department of Geosciences, Goethe University Frankfurt am Main, Germany
01.2015	Potsdam Institute for climate impact research (PIK), Potsdam, Germany
04.2014	Laboratory for Ion beam physics (LIP), ETH Zürich, Switzerland
05.2012	North-Eastern Hill University, Shillong, Meghalaya, India

Mentoring and Supervision**Postdoc and PhD**

2023	Gang Xue: visiting (3 months) postdoctoral researcher (Northwest University in Xi'An, China)
2020 – present	Sarah Rowan: main PhD supervisor (University of Bern)

Undergraduate

2023	Tim Huber: undergraduate (BSc) thesis advisor (University of Bern)
2023	Joel Gasser: undergraduate (BSc) thesis advisor (University of Bern)
2018	Bela Becker: co-supervision of Master’s thesis titled “Identifying and dating of Baikal outflow using soft sediments and U-series dated flowstones from Botovskaya Cave” (University of Bochum, Germany)

Field- and labwork supervision and training

2019 – 2022	Donna Bou-Rabee: Field training and laboratory supervision (U-Th chemistry) for PhD thesis (University of Trieste, Italy)
2019	Elli Ronay: Training and mentoring during field expedition to northern India (Vanderbilt University, USA)
2018	Niels Brall: Training and mentoring during field expedition to Siberia (University of Bochum)

University Services

2024	External examiner of PhD thesis defence Nadia Rhoujjati, University Mohammed VI Polytechnic, Benguerir, Morocco
2022	External examiner of PhD thesis defence Oliver Kost, ETH Zürich
2022	External examiner of PhD thesis viva Christopher Theaker, University of Oxford
2022	Academic host (seminar and research visit) to Dr. Robyn Pickering, University of Cape Town, South Africa
2019	External panel member of PhD proposal defense Oliver Kost, ETH Zürich
2019	Panel member of Transfer of Status viva Hamish Couper (1 st year graduate student), University of Oxford
2018 – 2020	Henderson group clean lab manager, Department of Earth Sciences, University of Oxford
2014 – 2016	Co-chair of the academic staff association (“akademischer Mittelbau”), member of the department teaching commission, Department of Earth Sciences, ETH Zürich

Scientific Community Services

2022	Panellist in the Climate: Past, Present and Future (CL) Division of EGU Campfire series on women in climate science.
2021	Contribution to the blog of the Climate: Past, Present and Future (CL) Division of EGU: “From mountains to caves: How I found my research niche”, nominated for the EGU Best blog post of 2021 competition.
2020 – 2023	PAGES Early Career Network (ECN) Science Cluster initiator (http://pastglobalchanges.org/ecn/clusters)
2020 – present	Associate editor at “Results in Earth Sciences” (Elsevier, full open access journal). Previously “Results in Geochemistry”, merged in May 2023.
2020 – 2023	PAGES SISAL (Speleothem Isotope Synthesis and Analysis) working group phase 2 steering committee member
2017 – 2022	Regional lead coordinator (Western Europe team) for the PAGES SISAL working group; PAGES ECN liaison

Convener of Sessions for Scientific Meetings

2024	Convener of Session “Molecular and Isotopic Tracers across Environmental Interfaces: The Carbon Cycle, Pyrogenic and Natural Organic Matter”, at the EGU international conference, Vienna.
2023	Convener of Session “Radiocarbon and other geochronological tools for environmental reconstructions - technical advances and novel applications”, at the EGU international conference, Vienna.
2022	Convener of Session “Climate and Paleoclimate studies” at the 24 th Radiocarbon conference, Zürich, Switzerland.
2022	Convener of Session “Methods and Technical Developments in Speleothem Science” at the Karst Record 9 conference, Innsbruck, Austria.
2022	Convener of Session “Interactions between biota and weathering” at the Goldschmidt Conference, Hawai’i.
2022	Convener of Session “New developments in speleothem paleoclimate and paleoenvironmental science” at the PAGES 6 th Open Science Meeting, Agadir (fully online).

- 2022 Convener of Session CL.1.2.3 “Speleothem and Continental Carbonate Archives of Modern and Palaeoenvironmental Change” at the EGU international conference, Vienna.
- 2020 Convener of Session CL1.26 “Speleothem and Continental Carbonate Archives of Modern and Palaeoenvironmental Change” at the EGU international conference, Vienna.
- 2020 Convener of Session “Methods and Technical Developments in Speleothem Science” at the Karst Record conference in Innsbruck, postponed due to COVID-19 pandemic.
- 2019 Convener of Session CL1.18 “Challenges, potential and results from large-scale compilations of palaeoclimate data (co-sponsored by SISAL)” at the EGU international conference, Vienna.

Peer-Reviewing Activities

Manuscripts (35): *Nature Geoscience* (1), *Nature Communications* (3), *Scientific Reports* (2), *Earth and Planetary Science Letters* (1), *Geophysical Research Letters* (2), *Geochimica et Cosmochimica Acta* (3), *Climate of the Past* (3), *Quaternary Science Reviews* (1), *Journal of Quaternary Science* (1), *Chemical Geology* (1), *Rapid Communications in Mass Spectrometry* (1), *Sedimentology* (1), *Journal of Geophysical Research-Biogeosciences* (2), *Geoderma* (1), *Quaternary Geochronology* (1; **outstanding reviewer, May 2018**), *Palaeogeography, Palaeoclimatology, Palaeoecology* (2), *Quaternary Research* (4), *Radiocarbon* (1), *Hydrological Sciences Journal* (1), *Journal of Archaeological Science* (1), *South African Journal of Geology* (1)

Grants (8): *Natural Environment Research Council (NERC, UK) Standard Grant* (1), *Austrian Science Fund (FWF, 1)*, *French National Research Agency (ANR, projet générique, 1)*, *National Cave and Karst Research Institute (NCKRI, USA) Seed grant applications* (5)

Field Campaigns

- 04.2021 – 12.2023 Bimonthly cave and environmental monitoring at Milandre Cave, Switzerland, collection of soil, gas and water samples from the Critical Zone
- 05.2019 Slovenia, exploratory sampling of stalagmites for palaeoseismicity studies
- 02.2019 Meghalaya, NE India, cave monitoring and sampling, soil sampling
- 01.2018 Eastern Siberia, scientific expedition to Botovskaya Cave, cave monitoring, speleothem, sediment, and water sample collection, cave exploration
- 07.2014 Belize, cave monitoring, collection of bulk soil, soil water and soil air, drip water sample collection for organic matter characterization
- 06.2013 Belize, cave monitoring, stalagmite and drip water sample collection, soil sample collection
- 03.2013 Bermuda, cave exploration, cave monitoring, identification of stalagmite samples for research
- 05.2012 Meghalaya, NE India, cave exploration, survey, monitoring, soil sampling

Ongoing collaborations and partnerships in scientific projects

- 2023 – present Prof. Jessica Oster (Vanderbilt University, USA): Project “Fire and Carbon in an arid Karst Landscape”. Characterisation of mobile carbon species before and after fire perturbation in the carbonate Critical Zone.

- 2023 – present Prof. Yassine Ait Brahim (Mohammed VI Polytechnic University, Benguerir, Morocco): Project “Exploring the potential of the North African speleothem archive”. Synthesis and generation of paleoclimate data for the North African region covering the late Pleistocene.
- 2022 – present Prof. Madhav P. Thakur (University of Bern): characterization of microbial communities in soil and cave sediments, understanding their importance for the Critical Zone carbon cycle and anthropogenic stressors.
- 2021 – present Partner in RICH project (SNSF Sinergia grant): establishing an inventory of radiocarbon in Switzerland, PIs: Prof. Tim Eglinton (ETH Zurich), Prof. Sönke Szidat (University of Bern), Dr. Frank Hagedorn (WSL), Dr. Heather Graven (Imperial College London), <https://biogeoscience.ethz.ch/research/theme3/rich.html>).
- 2021 – present Partner in ISOPERM project (The Leverhulme Trust): reconstructing Siberian and Mongolian permafrost change, PIs: Prof. Sebastian Breitenbach (Northumbria University), Prof. Hanno Meyer (Alfred Wegener Institute, Potsdam), <https://isoperm.net/>.

Media and Public Outreach

- upcoming in 2024 Feature article in Horizonte - The Swiss research magazine (published by SNSF).
- 2024 Fokus Forschung - Gespräche über Naturwissenschaften, organised by the University of Bern library; Panel interview in German with podcast. [Link to podcast](#).
- 2023 Feature article in Uniaktuell, the University of Bern’s online magazine, "Sie bringt Tropfsteine zum Sprechen"; in German (published 25.05.2023): [Link to article](#).
- 2022 Public engagement event at University of Bern (“Nacht der Forschung/Night of Research”); in German and English
- 2019 Public engagement event at Oxford University Natural History Museum (“Museum late”); in English
- 2017 Article in ETH News after publication in Scientific Reports, “Little Ice Age displaced the tropical rain belt”; in German and English (published 24.04.2017)
- 2017 Press release by University of Bochum after publication in Scientific Reports, “Wie der tropische Regengürtel wandert”; in German (published 05.04.2017)
- 2017 Contribution on caves as analogues for extraterrestrial life forms in the newsletter of the Speläoclub Berlin (SCB); in German (March 2017)
- 2016 Invited speaker in the lecture series for the special exhibition “Tambora and the year without a summer” at the museum focusTerra, ETH Zürich; in German
- 2013 – 2015 Guided tours at the museum focusTerra, ETH Zürich; in German and Italian

Organization of Events

- 2019 Fellowship information day for students and postdocs in Earth and environmental sciences at University of Oxford

- 2015 Seminar series “What is my PhD worth?” focusing on career planning for doctoral students and postdocs in Earth Sciences at ETH Zürich
- 2013 Second PhD retreat of the Department of Earth Sciences at ETH Zürich

Memberships

- 2012 – present European Geosciences Union (EGU)
- 2014 – present European Association of Geochemistry (EAG)
- 2016 – present Società Ticinese di Scienze Naturali (STSN)
- 2018 – present Swiss Society for Quaternary Research (CH-Quat)

Languages

- German and Italian: native, C2
- English: C2
- French: B1
- Russian: A1