

# Austria – Taiwan Joint Seminar 2022

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October 30  
|  
November 5

New Approaches for Sustainability &  
Climate Change research

*BOKU, Vienna, Austrian*



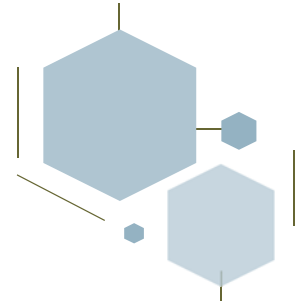


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## Background and Aim of Joint Seminar

Climate change and anthropogenic activities pose great challenges not only to natural systems but also to humanity. These challenges offer new opportunities for collaboration in research and science between countries. In the last online Joint Seminar 2021, the Austrian and Taiwanese researchers presented their respective research topics and interests to each other. We found that both countries possess valuable state-of-the-art research technologies with high potential for achieving breakthroughs in various fields of environmental research, e.g., NanoSIMS, hyperspectral imaging, multiple isotope tracers, etc. Through the last inter-disciplinary conversation, we identified the following four common topics according to the expertise of our researchers from the two countries:

*Topic 1: Weathering, soil formation, and erosion processes*

*Topic 2: Carbon cycling in earth's critical zone*

*Topic 3: Soil respiration and greenhouse gas emissions*

*Topic 4: Water transit history, biogeochemical, and hydrological processes*

The Austria-Taiwan joint seminar in 2022 will specifically focus on these topics. In our successful past seminars, we have built up an important and problem-oriented communication platform facilitating in-depth dialogues between Austrian and Taiwanese scientists of different disciplines. An MoU was signed, and several research activities have benefitted from the last joint seminars. In the intensive symposium and workshop, we will exchange knowledge on climate change-related research and scientific approaches and seek further academic collaborations.

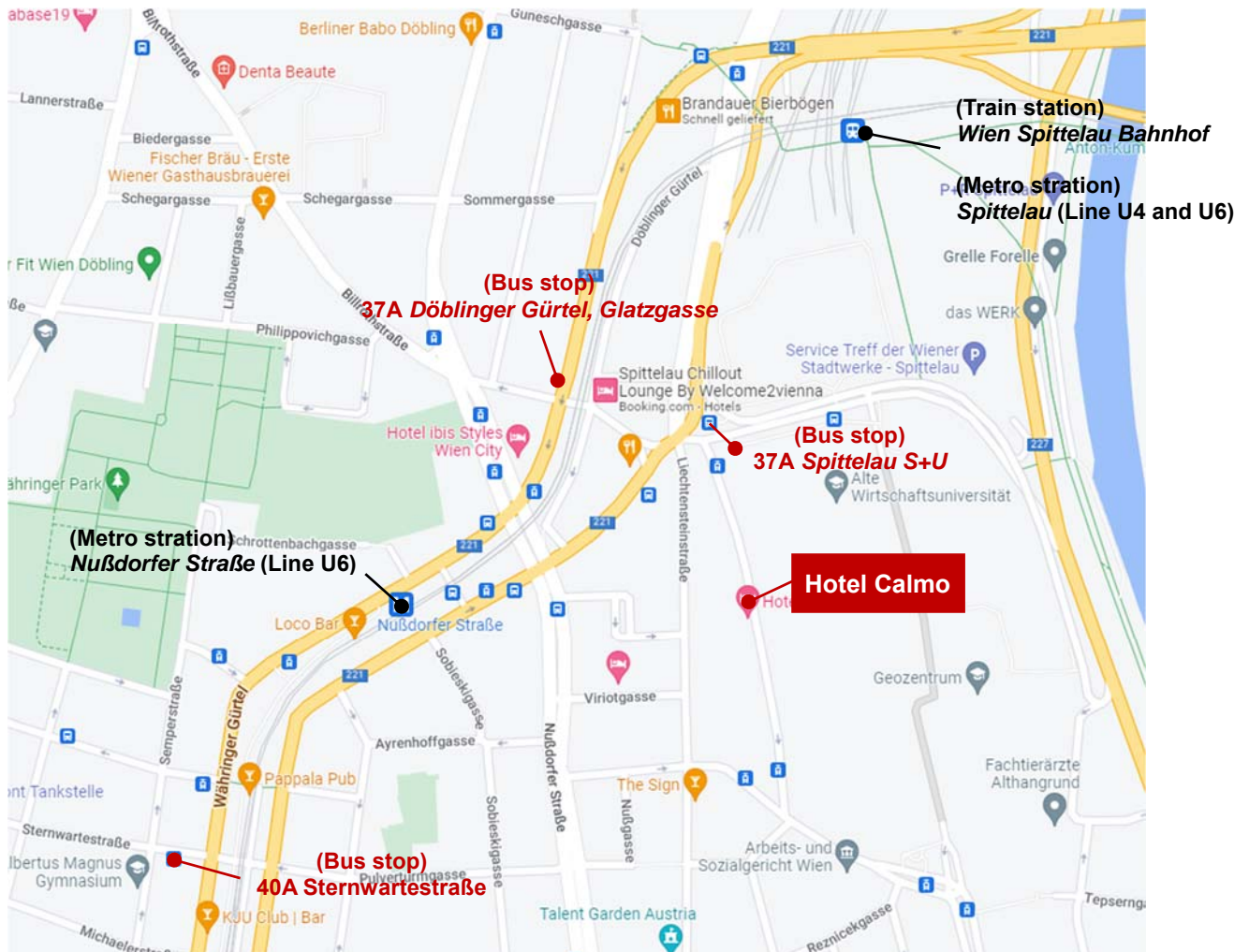
Through promoting dialogue and exchange, the Joint Seminar 2022 provides a platform for discussing current research directions and facilitating collaborative interdisciplinary research on climate change. The complementary expertise and research approaches will lead to synergies and benefits for the involved research groups of both countries, and constitute a sound basis for the development of new cooperation projects at high scientific level.

## Austria-Taiwan Joint Seminar Program

<b>Day 1 – October 30, 2022</b>	
<i>Arrival and Welcome</i>	
<b>08:25 –</b>	Arrival at Vienna (TW) Transport from Vienna airport to Hotel Calmo by bus
<b>13:00 –</b>	Welcome by Austrian delegation at Hotel Calmo by <i>F. Zehetner</i>
<b>Day 2 – October 31, 2022</b>	
<i>Scientific program</i>	
<b>Morning</b>	Free
<b>14:00 –</b>	Visit of BOKU's Hydraulic Engineering Laboratory 13:00-Pick up TW – participants at the hotel by <i>L. Graf</i>
<b>18:00 –</b>	<b>Joint dinner</b> at Gasthof zum Renner
<b>Day 3 – November 1, 2022</b>	
<i>Cultural program</i>	
<b>Morning</b>	Free <i>*Attention: public holiday – stores are closed!</i>
<b>13:00 –</b>	Pick up of the participants at the Hotel Calmo by <i>G. Weigelhofer</i>
<b>14:30 –</b>	Visit of Schloss Schönbrunn
<b>18:00 –</b>	<b>Joint dinner</b> at Brandauer's
<b>Day 4 – November 2, 2022</b>	
<i>Workshop at BOKU</i>	
<b>09:00 – 09:15</b>	<b>Opening</b> <i>T. Hein</i>
<b>09:15 – 10:00</b>	Presentation of Austrian delegates (3 minutes each) – Moderation by <i>T. Hein</i>
<b>10:00 – 10:30</b>	Presentation of Taiwanese delegates (3 minutes each) – Moderation by <i>J.C. Huang</i>
<b>10:30 – 11:00</b>	<b>Coffee Break</b>
<b>11:00 – 11:30</b>	Summary of ideas of virtual seminar 2021 – <i>G. Weigelhofer</i>
<b>11:30 – 12:15</b>	Plenary – discussion of potential topics for World Café
<b>12:15 – 13:15</b>	<b>Lunch Break</b> (at TÜWI)
<b>13:15 – 14:45</b>	World Café – Discussing selected topics for joint project proposals
<b>14:45 – 15:00</b>	Funding possibilities including requirements and deadlines – <i>T. Hein &amp; J.C. Huang</i>
<b>15:00 – 15:30</b>	<b>Coffee Break</b>
<b>15:30 – 16:15</b>	Presentation and plenary discussion of the outcome of World Café and formation of core teams
<b>16:15 – 17:30</b>	Core teams start working on project outline, main ideas and concept
<b>18:00 –</b>	<b>Joint dinner</b> at Meierei Diglas im Türkenschanzpark

<b>Day 5 –November 3, 2022</b> <i>Workshop at BOKU</i>	
<b>09:00 – 10:00</b>	Presentation and discussion of project outline(s) of Day 4.
<b>10:00 – 12:00</b>	Further development of project proposals: WPs contents, Innovation, Core literature, potential other partners, etc.
<b>12:00 – 13:00</b>	<b>Lunch Break</b> (at TÜWI)
<b>13:00 – 17:00</b>	Further development of project proposals
<b>18:00 –</b>	<b>Joint dinner</b> Hosted by the Taiwanese embassy at China-Restaurant Yang
<b>Day 6 – November 4, 2022</b> <i>Workshop at BOKU</i>	
<b>09:00 – 10:00</b>	Presentation and discussion of project outline(s) of Day 5.
<b>10:00 – 12:00</b>	Further development of project proposals
<b>12:00 – 13:00</b>	<b>Lunch Break</b> (at TÜWI)
<b>13:00 –</b>	Open end: Further development of project proposals or free afternoon
<b>Day 7 – February 5, 2022</b> <i>Departure</i>	
<b>09:00 –</b>	Departure from Vienna (TW) Transport from Hotel Calmo to Vienna airport by bus

## Hotel and Navigation



### ➤ Hotel Calmo in Vienna

Adress: Augasse 15, 1090 Wien

### ➤ Navigating between Hotel Calmo and BOKU (about 15 min)

#### - From Hotel to BOKU

(Bus 37A) Döblinger Gürtel, Glatzgasse → Linnéplatz

(Bus 40A) Sternwartestraße → Linnéplatz

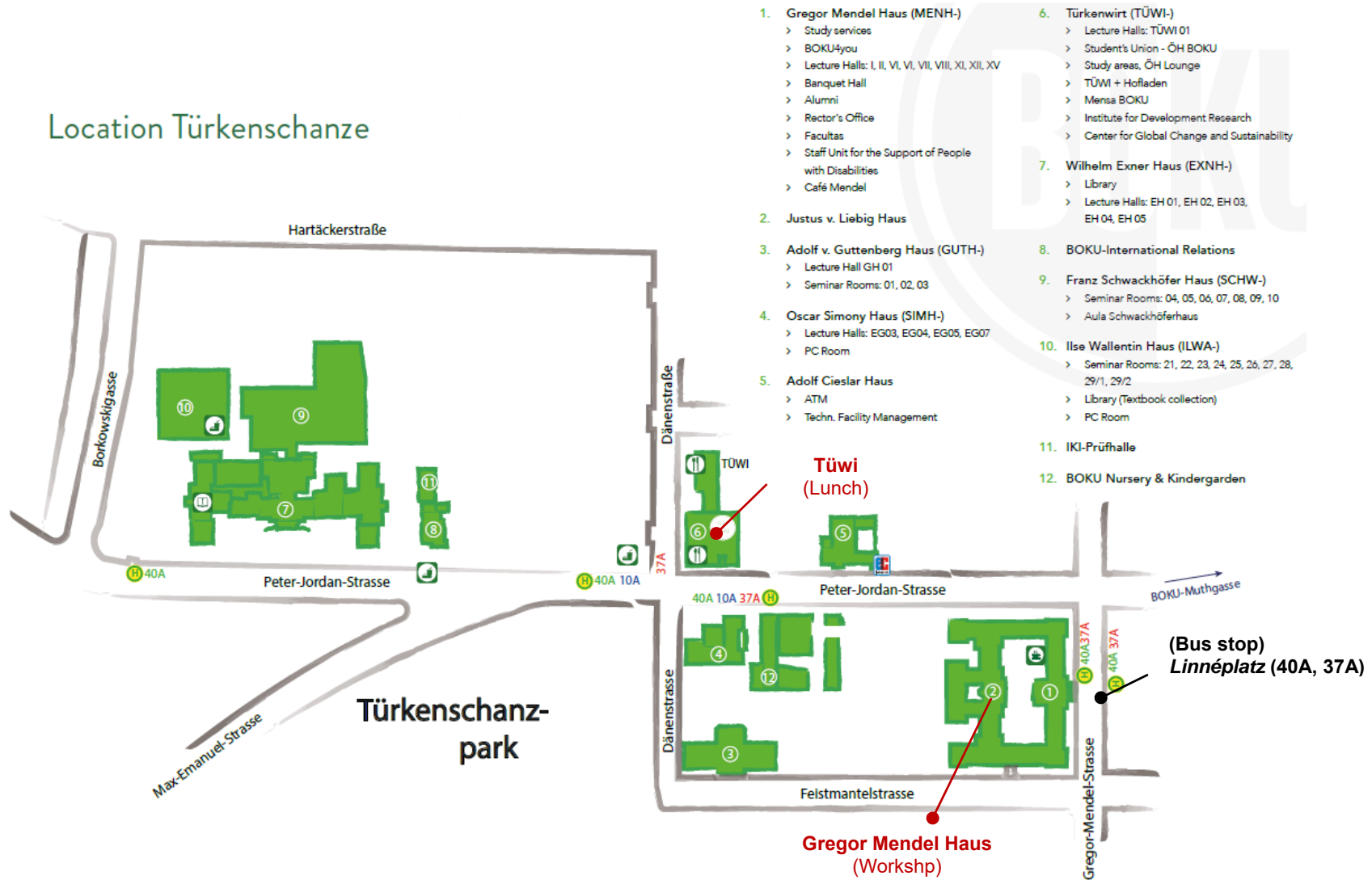
#### - From BOKU to Hotel

(Bus 37A) Linnéplatz Döblinger → Spittelau S+U

(Bus 40A) Linnéplatz → Sternwartestraße

## BOKU main campus (Türkenschanze)

### Location Türkenschanze



1. Gregor Mendel Haus (MENH-)
  - > Study services
  - > BOKU4you
  - > Lecture Halls: I, II, VI, VI, VII, VIII, XI, XII, XV
  - > Banquet Hall
  - > Alumni
  - > Rector's Office
  - > Facultas
  - > Staff Unit for the Support of People with Disabilities
  - > Café Mendel
2. Justus v. Liebig Haus
3. Adolf v. Guttenberg Haus (GUTH-)
  - > Lecture Hall GH 01
  - > Seminar Rooms: 01, 02, 03
4. Oscar Simony Haus (SIMH-)
  - > Lecture Halls: EG03, EG04, EG05, EG07
  - > PC Room
5. Adolf Cieslar Haus
  - > ATM
  - > Techn. Facility Management
6. Türkenwirt (TÜWI-)
  - > Lecture Halls: TÜWI 01
  - > Student's Union - ÖH BOKU
  - > Study areas, ÖH Lounge
  - > TÜWI + Hofladen
  - > Mensa BOKU
  - > Institute for Development Research
  - > Center for Global Change and Sustainability
7. Wilhelm Exner Haus (EXNH-)
  - > Library
  - > Lecture Halls: EH 01, EH 02, EH 03, EH 04, EH 05
8. BOKU-International Relations
9. Franz Schwackhöfer Haus (SCHW-)
  - > Seminar Rooms: 04, 05, 06, 07, 08, 09, 10
  - > Aula Schwackhöferhaus
10. Ilse Wallentin Haus (ILWA-)
  - > Seminar Rooms: 21, 22, 23, 24, 25, 26, 27, 28, 29/1, 29/2
  - > Library (Textbook collection)
  - > PC Room
11. IKI-Prüfhalle
12. BOKU Nursery & Kindergarden

**Gregor Mendel Haus (Workshop)**  
 Adress: Gregor Mendel Straße 33  
 The Institute of Hydrobiology and Aquatic Ecosystem Management (IHG) is located in this building at the top floor (DG).

## DI Dr. Florian Borgwardt



DI Dr. Florian Borgwardt  
 Senior Scientist  
 University for Natural Resources and Life Sciences,  
 Vienna  
 Institute of Hydrobiology and Aquatic Ecosystem  
 Management  
 Gregor Mendel Straße 33  
 1180 Wien

Coordinator of the strategic cooperation BOKU – Environment Agency Austria

Working group leader deputy of IMMA working group

The working group “integrative modelling and management of aquatic ecosystems” (IMMA) covers a broad range of research topics. By using biological indicators such as fish, impacts on riverine ecosystems are examined employing experimental and field studies as well as multi-scale modelling approaches. This way, ecosystem-inherent processes are simulated, verified and validated. The information gained enables comprehensive understanding of stressor-response relationships. This knowledge enables the elaboration of effective restoration measures to improve the ecological status as well as predictions of future developments of multi-impacted ecosystems. Strong collaboration with stakeholders ensures that research outputs feed into integrative river management.

### Research interests

climate change impacts on fish and aquatic biodiversity in rivers, effects of human pressures, aquatic ecosystem management, GIS analyses, species distributions

### Link to papers

<https://www-1sciencedirect-1com-100137bqa008c.pisces.boku.ac.at/science/article/pii/S0048969720370030?via%3Dihub>

<https://www-1frontiersin-1org-100137bqa008d.pisces.boku.ac.at/articles/10.3389/fenvs.2020.00059/full>



<https://www-1sciencedirect-1com-100137bqa008e.pisces.boku.ac.at/science/article/pii/S0048969718342396?via%3Dihub>

<https://www-1sciencedirect-1com-100137bqa0090.pisces.boku.ac.at/science/article/pii/S0304380016000296?via%3Dihub>

Current projects: Mainstreaming Ecological Restoration of freshwater-related ecosystems in a Landscape context: INnovation, upscaling and transformation (MERLIN)

Christian Doppler Laboratory for Meta Ecosystem dynamics in RIVERine landscapes – Research for sustainable river management

The thermal regime of the Pielach River: Influence and ecological significance of summer water temperatures

## Assoc. Prof. Dr. Hung-Chun, Chao



Associate Professor  
 Department of Earth and Environmental Sciences,  
 National Chung Cheng University  
 e-mail: [ekman60@gmail.com](mailto:ekman60@gmail.com)

### Research interests

- Stable isotopes (H, O, Sr, B, Pb, Li, Cl) as tracers for natural waters.  
The source of rainwater, groundwater, hot springs, mud volcano fluids, and the early diagenesis of marine pore water.
- Stable isotopes (Sr, Nd, Li, Pb) as tracers for sediment provenance.
- Chemical weathering
- Sediment burial age ( $^{26}\text{Al}$  and  $^{10}\text{Be}$ )

### Selected Publications

- Chao, H. C.\***, You, C. F., Lin, I. T., Liu, H. C., Chung, L. H., Huang C. C., and Chung, C. H. (2022) Two-End-Member mixing in the fluids emitted from Mud Volcano Lei-Gong-Huo, Eastern Taiwan: Evidence from Sr isotopes. *Frontiers in Earth Sciences*. 9:750436, DOI: 10.3389/feart.2021.750436.
- Chao, H. C.**, Pi, J. L.\*, You, C. F., Hsieh, Y. T., Lu, H. Y., Huang, K. F., Liu, H. C., Chung, C. H. (2021) Hydrogeology constrained by multi-isotopes and volatiles geochemistry of hot springs in Tatun Volcanic Group, Taiwan. *J. Hydrology*, 600, 126515. DOI:10.1016/j.jhydrol.2021.126515.
- Chao, H. C.**, You, C. F.\*, Liu, H. C., Chung, H. C. (2015) Evidence for stable Sr isotope fractionation by silicate weathering in a small sedimentary watershed in southwestern Taiwan. *Geochimica et Cosmochimica Acta*, 165, 324-341. DOI: 10.1016/j.gca.2015.06.006.
- Chao, H. C.**, You, C. F.\*, Liu, H. C., Chung, H. C. (2013) The origin and migration of mud volcano fluids in Taiwan: Evidence from hydrogen, oxygen, and strontium isotopic compositions. *Geochimica et Cosmochimica Acta*, 114, 29-51, doi:dx.doi.org/10.1016/j.gca.2013.03.035.
- Chao, H. C.**, You, C. F.\*, Wang, B. S., Chung, C. H. and Huang, K. F. (2011) Boron isotopic composition of mud volcano fluids: Implications for fluid migration in shallow subduction zones. *Earth and Planetary Science Letters*, 305(1), 32-44, doi:10.1016/j.epsl.2011.02.033.

## Assoc. Prof. Dr. Li-Chi Chiang

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Associate Professor  
Department of Bioenvironmental Systems Engineering,  
National Taiwan University,  
Taipei, Taiwan  
Office: +886-2-3366-3467  
E-mail: [lchiang@ntu.edu.tw](mailto:lchiang@ntu.edu.tw)

### Research interests

watershed management, GIS application on natural resources management, non-point source pollution, ecohydrology, ecosystem service evaluation, hydrological/environmental modeling, land use change, climate change and adaptation, and field/lab experiment.

### Link to papers

<https://www.sciencedirect.com/science/article/pii/S095965262102655X?via%3Dihub>

<https://link.springer.com/article/10.1007/s10661-021-09283-9>

<https://www.mdpi.com/2073-4441/11/9/1749>

## Dr. Lisa Fischer

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Dr. Lisa Fischer  
Senior Scientist  
University for Natural Resources and Life Sciences,  
Vienna  
Department of Chemistry, Institute of Analytical  
Chemistry  
Phone: +43-1-47654-77193  
[lisa.fischer@boku.ac.at](mailto:lisa.fischer@boku.ac.at)

### Research interests

elemental ultra-trace analysis of natural waters by ICP-SFMS, ultra-trace speciation analysis, matrix separation/pre-concentration methods, method development, sample preparation for inorganic analysis

### Link to papers

<https://www.mdpi.com/1420-3049/26/23/7253>

<https://pubs.rsc.org/en/content/articlelanding/2020/JA/C9JA00403C>

<https://www.sciencedirect.com/science/article/pii/S0304420317300361?via%3Dihub>

[https://opac.geologie.ac.at/wwwopacx/wwwopac.ashx?command=getcontent&server=images&value=mineral\\_heilwaesser.pdf](https://opac.geologie.ac.at/wwwopacx/wwwopac.ashx?command=getcontent&server=images&value=mineral_heilwaesser.pdf)

## Assoc. Prof. Dr. Herbert Formayer

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Assoc. Prof. Dr. Herbert Formayer  
University for Natural Resources and Life Sciences,  
Vienna  
Institute of Meteorology and Climatology

Faculty member of BOKU Doctoral School HADRIAN

<https://boku.ac.at/docservice/doktoratsstudien/doktoratsschulen/hazards-and-risks-in-alpine-regions-under-global-change-hadrian>

Scientific head of the Austrian research program StartClim (<https://www.startclim.at>)

Organizer of the scientific conference “Austrian Climate Day”

### Research interests

anthropogenic climate change, regional climate modeling, inter- and transdisciplinary research, extreme events.

### Link to papers

<https://www.sciencedirect.com/science/article/pii/S2213078021000311?via%3Dihub>

<https://link.springer.com/article/10.1007/s00704-016-1767-0>

<https://rmets.onlinelibrary.wiley.com/doi/10.1002/joc.4678>

## Univ.Prof. Dipl.-Ing. Dr.nat.techn. Dr.h.c. Helmut Habersack

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Univ.Prof. Dipl.-Ing. Dr.nat.techn. Dr.h.c. Helmut Habersack

University for Natural Resources and Life Sciences,  
Vienna

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Institute of Hydraulic Engineering and River Research

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1190 Vienna

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[helmut.habersack@boku.ac.at](mailto:helmut.habersack@boku.ac.at)

<https://boku.ac.at/en/wau/iwa>

UNESCO Chair on Integrated River Research and Management

<https://www.unesco.at/querschnittsthemen/article/unesco-lehrstuehle-in-oesterreich>

Vice Chair of the Intergovernmental Council of the UNESCO IHP Programme

President of the International Commission for the Hydrology of the Rhine basin (CHR)

<https://www.chr-khr.org/en>

Faculty Member of the BOKU Doctoral School HR21

<http://short.boku.ac.at/q3zk25>

Organizer of various different events:

1st-4th Intl. Conference on the Status and Future of the World's Large Rivers

<http://unesco-chair.globalonline.org/index.php/newsarchive.html>

Vienna Water Conferences 2023, including: 40th IAHR World Congress, 5th Intl. Conference on the Status and Future of the World's Large Rivers, 30th Conference of the Danubian Countries

<https://rivers.boku.ac.at/>

Visiting Professor at Disaster Prevention Research Institute, Kyoto University, Japan

Visiting Professor at UC Berkeley, USA and University of Minnesota, St. Anthony Falls Laboratory, USA

### Research interests

Sediment transport, river morphology, integrated flood risk management, river engineering, ecohydraulics, sustainable hydropower, optimisation of navigation fairway, river restoration

### Link to papers

<https://onlinelibrary.wiley.com/doi/10.1111/jfr3.12758>

<https://www.mdpi.com/2073-4441/14/15/2295>

<https://www.webofscience.com/wos/woscc/full-record/WOS:000767502400003?SID=EUW1ED0EB3YPCTIYbAd9pg2tZefsS>

## Univ. Prof. Dr. Thomas Hein

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Univ. Prof. Dr. Thomas Hein  
University for Natural Resources and Life  
Sciences, Vienna  
Head of Institute  
Institute of Hydrobiology and Aquatic Ecosystem  
Management  
Twitteraccount: @BigerScience  
  
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Speaker of the BOKU Doctoral School HR21  
<http://short.boku.ac.at/q3zk25>

Partner of the Marie Skłodowska-Curie Innovative Training Network (ITN) project i-CONN  
(<http://iconn.network/>)

Organizer of the ISRS Conference 2019: <http://isrs2019.info>

Vice President of IAD [www.danube-iad.eu](http://www.danube-iad.eu)

Fulbright Fellow at the Winona State University, Winona, MN, USA

### Research interests

carbon cycling, aquatic-terrestrial interface, aquatic biodiversity, aquatic ecosystem  
management, extreme events

### Link to papers

<https://onlinelibrary.wiley.com/doi/full/10.1111/fwb.13593>

<https://www.sciencedirect.com/science/article/pii/S0048969718309367>

<https://www.sciencedirect.com/science/article/pii/S0048969718342190>



## Assoc. Prof. Dr. Shao-Yiu Hsu

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Associate Professor  
Department of Bioenvironmental System Engineering  
National Taiwan University  
1, Section 4, Roosevelt Road, Taipei 106, Taiwan,  
R.O.C.  
Phone: +886-2-3366-4671  
E-mail: [syhsu@ntu.edu.tw](mailto:syhsu@ntu.edu.tw)  
Website: <https://shaoyiuhsu.wixsite.com/website>

### Research interests

porous media flow, subsurface hydrology, water resource management

### Link to papers

<https://www.scopus.com/authid/detail.uri?authorId=39261555400>

### Link to detailed CV

[https://www.dropbox.com/s/sycjui9y71g3bwf/CV\\_ShaoYiuHsu\\_NTU\\_0209\\_2022.pdf?dl=0](https://www.dropbox.com/s/sycjui9y71g3bwf/CV_ShaoYiuHsu_NTU_0209_2022.pdf?dl=0)

## Univ. Prof. Dr. Jr-Chuan (River) Huang

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Prof. Dr. Jr-Chuan Huang  
Dept. of Geography, National Taiwan  
University, Taipei, Taiwan  
Email: [riverhuang@ntu.edu.tw](mailto:riverhuang@ntu.edu.tw)

### Research interests

rainfall-runoff processes, erosion and weathering, nutrient transport

### Link to papers

<https://link.springer.com/article/10.1007/s10533-021-00805-8>

<https://www.sciencedirect.com/science/article/pii/S002216942030024X>

<https://www.mdpi.com/2073-4441/12/4/1169>

## Ass. Prof. Dr. Erich Inselsbacher

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Ass. Prof. Dr. Erich Inselsbacher  
University for Natural Resources and Life Sciences,  
Vienna  
Institute of Soil Research  
Head of Laboratory  
+43-1-47654-91116

Partner of the Global Soil Partnership  
(<https://www.fao.org/global-soil-partnership/glosolan/en>)

Editorial member of Tree Physiology  
(<https://academic.oup.com/treephys>)  
Consulting editor of Plant and Soil  
(<https://www.springer.com/journal/11104>)

### Research interests

carbon and nitrogen cycling, organic nitrogen in soils, soil-plant-microbe interactions, plant nutrition, global climate change

### Link to papers

<https://www.sciencedirect.com/science/article/pii/S0038071722002863?via%3Dihub>

<https://nph.onlinelibrary.wiley.com/doi/10.1111/nph.17521>

<https://www.sciencedirect.com/science/article/pii/S0038071721001346?via%3Dihub>

<https://www.nature.com/articles/srep15727>

## Assoc. Prof. Dr. Roland Kaitna



Associate Professor  
 Institute of Mountain Risk Engineering  
 Department of Civil Engineering and Natural Hazards  
 University of Natural Resources and Life Sciences,  
 Vienna  
 Peter Jordanstr. 82, 1190 Vienna, Austria  
 Tel: +43 1 47654 87113  
 Email: [roland.kaitna@boku.ac.at](mailto:roland.kaitna@boku.ac.at)  
 Web: [www.baunat.boku.ac.at/ian/personen/roland-kaitna/](http://www.baunat.boku.ac.at/ian/personen/roland-kaitna/)  
 ORCID: 0000-0002-2289-723X

### Research interests

- Initiation and dynamics of gravitational mass flows
- Mitigation measures against mountain hazard processes
- Impact of climate change on mountain hazards
- Management of natural hazards
- Alpine geomorphology

### Link to publications

[https://forschung.boku.ac.at/fis/suchen.person\\_publicationen?sprache\\_in=en&menue\\_id\\_in=102&id\\_in=5524](https://forschung.boku.ac.at/fis/suchen.person_publicationen?sprache_in=en&menue_id_in=102&id_in=5524)

### Fellowships

- 2013: Occasional Lecturer Fund (CIES Council for International Exchange of Scholars), USA
- 2012: Fulbright scholarship for research and teaching at the University of Minnesota, USA (Fulbright Commission)
- 2008: „Erwin Schrödinger Mobilitätsstipendium“ (FWF Austrian Science Fund)
- 2006: Scholarship for the Summerschool Alpbach 2006: „Monitoring of Natural Hazards from Space“ (FFG Austrian Research Promotion Agency)

2001: Short term research scholarship (University of Natural Resources and Life Sciences, Vienna)

1998: Erasmus scholarship

### Awards

2014: Best paper award for the Publication “Surface slopes, velocity profiles and fluid pressure in coarse-grained debris flows saturated with water and mud”, Journal of Fluid Mechanics, Vol. 741, 2014, pp. 377-403 (Jubiläumsfonds der Stadt Wien).

2006: „Claus Fischer Price for Innovations“ for the PhD Thesis

1991: Student award in bridge design (University of Natural Resources and Life Sciences, Vienna)

## Dr. Jun-Yi Lee



Postdoctoral Researcher  
 Department of Soil and Environmental Sciences,  
 National Chung Hsing University  
 Email: [jylee@nchu.edu.tw](mailto:jylee@nchu.edu.tw)

### Research interests

- Rainfall-runoff modelling with environmental tracers
- Recession analysis
- Terrain analysis

### Selected Publications

Chang C-T, Shih Y-T, Lee L-C, **Lee J-Y**, Lee T-Y, Lin T-C, Huang J-C. (2020). Effects of Land Cover and Atmospheric Input on Nutrient Budget in Subtropical Mountainous Rivers, Northeastern Taiwan. *Water*, 12(10), 2800. 2.

Lee W-S, Huang J-C, Chang C-T, Chan S-C, Liou Y-S, Liao C-S, Lee L-C, **Lee J-Y**, Shih Y-T, Lu M-C, Chen P-H. (2020). Interaction among Controlling Factors on Riverine DIN Export in Small Mountainous Rivers of Taiwan: Inseparable Human-Landscape System. *Water*, 12, 2981.

**Lee, J-Y**, Shih Y-T, Lan C-Y, Lee T-Y, Peng T-R, Lee C-T, Huang J-C. (2020). Rainstorm Magnitude Likely Regulates Event Water Fraction and Its Transit Time in Mesoscale Mountainous Catchments: Implication for Modelling Parameterization. *Water*, 12(4), 1169.

Ko, C. Y., Iwata, T., **Lee, J. Y.**, Murakami, A., Okano, J., Ishikawa, N. F., Sakai, Y., Tayasu, I., Itoh, M., Song, U., Togashi, H., Nakano, S., Togashi, H. (2018). Assessing alpha and beta diversities of benthic macroinvertebrates and their environmental drivers between watersheds with different levels of habitat transformation in Japan. *Mar. Freshwater. Res.*, 70(4), 504-512.

Schomakers, J., Mayer, H., **Lee, J.Y.**, Lee, T.Y., Jien, S.H., Mentler, A., Hein, T., Huang, J.C., Hseu, Z.Y., Cheng, L.W., Yu, C.K., Zehetner, F. (2018) Soil aggregate breakdown and

carbon release along a chronosequence of recovering landslide scars in a subtropical watershed. *CATENA*, 165, 530-53

### **EDUCATION**

**Ph.D.** Geography, National Taiwan University, 2021 (Advisor: Dr. Jr-Chuan Haung, Dr. Cheing-Tung Lee)

**M.S.** Geography, National Taiwan University, 2013 (Advisor: Dr. Jr-Chuan Haung)

**B.A.** Geography, National Changhua University of Education, 2009

*Short Course, Catchment Science Summer School, University of Aberdeen, 2017*

*Short Course, Summer School - Runoff Predictions in Ungauged Basins (PUB), Vienna University of Technology, 2016.*

### **EMPLOYMENT**

2021- Postdoctoral Researcher, Department of Soil and Environmental Science, National Chung Hsing University, Taiwan

2019-2020 Visiting Scholar, Northern Rivers Institute, University of Aberdeen, UK.

2015-2019 Research Assistant, Department of Geography, National Taiwan University, Taiwan

2010-2013 Research Assistant, Department of Geography, National Taiwan University, Taiwan

## MA Li-Chin Lee

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PhD candidate

National Taiwan University, Taiwan

Department of Geography

University for Natural Resources and Life Sciences,  
Vienna

Institute of Hydrobiology and Aquatic Ecosystem  
Management

### Research interests

carbon and nutrient cycling, river continuum, extreme events, terrain analysis, flood frequency analysis

### Link to papers

<https://www.nature.com/articles/s41598-018-38276-x>

<https://www.sciencedirect.com/science/article/pii/S0169204620315012?via%3Dihub>

<https://www.sciencedirect.com/science/article/pii/S0169555X16302100>

<https://bg.copernicus.org/articles/13/1787/2016/>

### Scholarship

Scholarship of International Cooperative Doctoral Program from Taiwan's Ministry of Education



## Dr. Hao-Chi Lin (Haw-Jy Lin)

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Postdoctoral Fellow  
National Taiwan University, Taiwan  
Department of Geography  
Twitteraccount: @HaoChiLin1  
ORCID: <https://orcid.org/0000-0003-0186-9085>

### Research interests

Nutrient cycling and transport, Anthropogenic and ecological disturbances, Stoichiometry behaviors in the water body, Interactions between physical and biogeochemical processes in freshwater ecosystems, Conceptual modeling for freshwater carbon fluxes

### Link to papers

<https://doi.org/10.1016/j.scitotenv.2021.150044>

<https://doi.org/10.1029/2020JG005907>

### Projects

The team member of Belmont Forum in ABRESO Project (Concentration-discharge Relationships work group) <https://sites.psu.edu/abreso/working-groups/concentration-discharge-relationships/>

The influences of terrestrial DOM loading and agricultural land-used on C and N fluxes under typhoon disturbances in a subtropical watershed (With Dr. Jr-Chuang Huang)

The physical and biochemical regimes of dissolved C and N fluxes in a subtropical reservoir. (With Dr. Fuh-Kwo Shiah

[https://www.rcec.sinica.edu.tw/index\\_en.php?action=member&id=15](https://www.rcec.sinica.edu.tw/index_en.php?action=member&id=15))

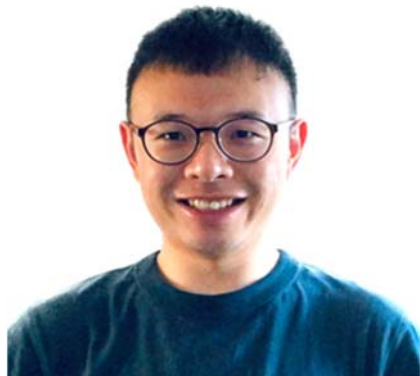
### Funding

Scholarship of Japan-Taiwan Exchange Association (2019-2022)

Belmont Soils 2020 International Scholars Program (2022-2023)

## Ass. Prof. Dr. Hou-Chun Liu

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Assistant Professor Hou-Chun Liu  
Department of Earth Sciences, National Cheng Kung University  
No.1 University Road, East District, Tainan City, Taiwan (ROC)  
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<https://www.researchgate.net/profile/Hou-Chun-Liu>  
Webpage: <http://www.edsrc.ncku.edu.tw/nsi/>  
E-Mail: [liuhouchun@gs.ncku.edu.tw](mailto:liuhouchun@gs.ncku.edu.tw)  
Phone: +886-6-2757575 ext 65428

### Research topics

Research topics: Reconstruction of environmental and climatic changes via non-traditional stable isotopes, Exploration of Dynamic weathering sources during extreme events

### Research interests

The global climatic change and continental weathering is a complex cause-consequence feedback system. Non-traditional isotope systems offer a new potential chance for better understanding the biogeochemical reactions in exogenic processes and/or be used as a new tracer for weathering sources. My current research utilizes the triple Sr isotopes ( $^{87}\text{Sr}/^{86}\text{Sr}$  &  $\delta^{88}\text{Sr}/^{86}\text{Sr}$ ) to evaluate the Sr cycles in continental weathering systems and involved weathering processes. These results will form a background for interpreting the link between continental weathering and the climatic evolution in the past.

### Link to papers

<https://pubs.rsc.org/en/content/articlelanding/2021/ja/d1ja00224d>

<https://pubs.acs.org/doi/10.1021/acsearthspacechem.2c00222>

## Dr. Bano Mehdi-Schulz

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Dr. Bano Mehdi-Schulz  
Senior Scientist  
University of Natural Resources & Life Sciences,  
Vienna (BOKU)  
Department of Water-Atmosphere-Environment  
Institute of Hydrology and Water Management (HyWa)  
Muthgasse 18, 1190 Vienna, Austria  
Email: [bano.mehdi@boku.ac.at](mailto:bano.mehdi@boku.ac.at)  
Website: <https://homepage.boku.ac.at/bmehdi/>

### Research focus

The quantification of anthropogenic impacts on hydrological systems in agriculturally dominated catchments.

### Research expertise

Simulate hydrological processes in catchments; quantify nutrient and sediment transport from cropland; determine drivers of agricultural land use change; describe farmer decision-making; evaluate climate change impacts & adaptation options in catchments

### Link to papers

<https://www.scopus.com/authid/detail.uri?authorId=57451471700>

<https://www.researchgate.net/profile/Bano-Mehdi-Schulz>

Elise Richter Stipend from the Austrian Science Fund (FWF) at the BOKU University, Vienna Austria

Organizer of 2019 International SWAT Conference <https://swat.tamu.edu/conferences/2019-vienna/>

## Dr. Michael Stockinger



Dr. Michael Stockinger

University for Natural Resources and Life Sciences, Vienna

University Assistant

Institute of Soil Physics and Rural Water Management (SoPhy)

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phone: +43-147654-81516

<https://boku.ac.at/wau/sophy>

National representative and leader of Work Group 3

“Catchment-scale water residence time and travel times” of  
COST Action CA19120 – Water isotopes in the critical zone:  
from groundwater recharge to plant transpiration

(<https://watson-cost.eu/>)

Session Convener at EGU General Assembly

2017, 2020, 2021, 2022

### Research interests

catchment hydrology, isotope hydrology, water transit times, soil water-plant interactions, throughfall, direct-liquid vapor equilibration method

### Link to papers

<https://onlinelibrary.wiley.com/doi/10.1002/eco.2444>

<https://hess.copernicus.org/articles/25/4887/2021/>

<https://hess.copernicus.org/articles/23/4333/2019/>

## Ass. Prof. Dr. Gabriele Weigelhofer

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Assistant Professor at  
University for Natural Resources and Life  
Sciences, Vienna  
Institute of Hydrobiology and Aquatic Ecosystem  
Management  
Twitteraccount: @BigerScience

Group leader at  
WasserCluster Lunz  
Dr. Carl-Kupelwieser-Prom. 5  
3293 Lunz/See

[www.biger-science.group](http://www.biger-science.group)  
[www.wcl.ac.at](http://www.wcl.ac.at)

### Research interests

nutrient and carbon cycling, greenhouse gases, water-sediment and aquatic-terrestrial interfaces,  
land use and drought impacts, streams, Citizen Science

<https://orcid.org/0000-0002-1298-2721>

### Link to papers

<https://doi.org/10.1007/s10533-022-00919-7>

<https://doi.org/10.1111/fwb.13980>

<https://doi.org/10.3390/w12113246>

## Assoc. Prof. Dr. Franz Zehetner



Institute of Soil Research, Department of Forest and Soil Sciences

University of Natural Resources and Life Sciences (BOKU)

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Email: [franz.zehetner@boku.ac.at](mailto:franz.zehetner@boku.ac.at)

- since 2013     Assoc. Prof., Institute of Soil Research, BOKU, Vienna
- 2009 - 2013     Senior Scientist, Institute of Soil Research, BOKU, Vienna
- 2005 - 2009     Assistant Professor, Institute of Soil Research, BOKU, Vienna
- 2005             Post-doc, Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan
- 2003 - 2004     Consultant of Soil Science, SANREM-CRSP (USAID), Ecuador
- 2003             PhD, Soil Science, University of Georgia, USA
- 1998             Teaching Certificate, Natl. Academy of Agriculture and Forestry Education, Vienna
- 1997             M.Sc., Soil Science, BOKU, Vienna

### Research interests

weathering, soil formation, carbon cycling, phosphorus dynamics in soil

### Link to papers

[https://forschung.boku.ac.at/fis/suchen.person\\_publicationen?sprache\\_in=en&ansicht\\_in=&menue\\_id\\_in=102&id\\_in=751&publikation\\_typ\\_id\\_in=&sortierung\\_in=kategorie](https://forschung.boku.ac.at/fis/suchen.person_publicationen?sprache_in=en&ansicht_in=&menue_id_in=102&id_in=751&publikation_typ_id_in=&sortierung_in=kategorie)

*Video (research in Galapagos):*

<https://www.youtube.com/watch?v=55H8UANUEQw>

## DI Dr. Andreas Zitek, MSc



DI Dr. Andreas Zitek, MSc

1) University for Natural Resources and Life Sciences,  
Vienna,

Dept. of Chemistry & E-Learning and Didactics

2) FFoQSI - Austrian Competence Centre  
for Feed and Food Quality, Safety & Innovation

FFoQSI GmbH, Technopark 1D, A- 3430 Tulln

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[Andreas.zitek@boku.ac.at](mailto:Andreas.zitek@boku.ac.at)

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[andreas.zitek@boku.ac.at](mailto:andreas.zitek@boku.ac.at)

[www.ffaosi.at](http://www.ffaosi.at)

### Research interests

fish otoliths, Sr isotopes and elements in fish hard parts, fish population ecology, aquatic ecogeochemistry, food authenticity and quality, spectral near infrared methods, supporting development and learning processes in humans

### Link to papers

<https://onlinelibrary.wiley.com/doi/10.1111/j.1365-2400.2010.00742.x>

<https://www.biorxiv.org/content/10.1101/2021.07.23.453494v1>

<https://www.publish.csiro.au/mf/MF13235>

FAO expert in the field of fish migration and application of otolith chemistry:

<https://www.fao.org/3/i6009e/i6009e.pdf>

Co-organizer of the European Winter Conference on Plasma Spectrochemistry 2017:

<https://www.ewcps2017.at/>

Coordinator of the ERASMUS+ project INTRINSIC on sustainable entrepreneurship education:

[www.intrinsic.eu](http://www.intrinsic.eu)

Research stay and Woodshole Oceanographic Institution, Marine Research Facility:

<https://www.whoi.edu/profile/sthorrold/>

## List of Participants (alphabetical order)

<b>Name</b>	<b>Affiliation</b>	<b>E-mail</b>
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<i>Lisa Fischer</i>	Inst. of Analytical Chemistry, BOKU	lisa.fischer@boku.ac.at
<i>Herbert Formayer</i>	Inst. of Meteorology and Climatology, BOKU	herbert.formayer@boku.ac.at
<i>Helmut Habersack</i>	Inst. of Hydraulic Engineering and River Research, BOKU	helmut.habersack@boku.ac.at
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<i>Hou-Chun, Liu</i>	Dept. of Earth Sciences, NCKU	liuhouchun@gs.ncku.edu.tw
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<i>Axel Mentler</i>	Inst. of Soil Research, BOKU	axel.mentler@boku.ac.at
<i>Michael Stockinger</i>	Institute of Soil Physics and Rural Water Management, BOKU	michael_stockinger@boku.ac.at
<i>Gabriele Weigelhofer</i>	Inst. of Hydrobiology and Aquatic Ecosystem Management, BOKU; WasserCluster Lunz	gabriele.weigelhofer@wcl.ac.at
<i>Franz Zehetner</i>	Inst. of Soil Research, BOKU	franz.zehetner@boku.ac.at
<i>Andreas Zitek</i>	Inst. of Analytical Chemistry, BOKU	andreas.zitek@boku.ac.at







## **Austria – Taiwan Joint Seminar 2022**

**October 30 – November 5, 2022**

Hosted by Institute of Hydrobiology and Aquatic Ecosystem  
Management, University of Natural Resources and Life  
Sciences, Vienna, Austria

Co-organized by Department of Geography, National Taiwan  
University, Taipei, Taiwan

Funding: FWF-MOST Joint Seminar

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