

# CONVERGING SPHERES



## Program

23. - 27. September 2024



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BÜRO FÜR GEOLOGIE UND HYDROGEOLOGIE  
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## Program Overview

	<b>Monday</b>	<b>Tuesday</b>		<b>Wednesday</b>		<b>Thursday</b>	
	<b>Pangeo</b>	<b>Pangeo</b>	<b>DEUQUA</b>	<b>Pangeo</b>	<b>DEUQUA</b>	<b>Pangeo</b>	<b>DEUQUA</b>
8:30		Conference opening					
8:50	8:00: Full day field trips 1,2,4,5	ÖGG: Pangeo award ceremony	Session: Terrestrial records of paleo-environments			Workshop presentations: Glacial erosion and deposition	Presentation of workshop results
9:00							Session: Anthropogenic impact on the development of landscapes
10:00 - 10:30	Thermochron workshop	Coffee break				Coffee break	
10:30 - 12:30	Teachers' workshop	Workshop keynote lectures	Session: Terrestrial records of paleo-environments	Workshop presentations: Earth surface dynamics		Workshop presentations: Glacial erosion and deposition	Presentation of workshop results
12:30 - 14:00		Lunch break		Workshop presentations: Combined workshop earth's spheres and regional geology		Closing ceremony	
14:00 - 16:00		Workshop keynote lectures	Postersession	Workshop presentations: Mineral raw materials and energy transition		Lunch break	Field trip 6
16:00 - 16:30		Coffee break		Session: Analytical Advances		Session: Regionale Quartär- und angewandte Geologie	
16:30 - 17:30		Workshop keynote lecture: Glacial erosion and deposition				Coffee break	
18:00		ÖMG: Award ceremony	DEUQUA: General assembly			Regionale Quartär- und angewandte Geologie	
19:00	Ice breaker	Conference dinner				Public evening lecture: The large cave systems of the Eastern Alps	
						Friday: Field trip 3 (8-18:00) Field trip 7 (7-20:00) Field trip 8 (8-12:00)	

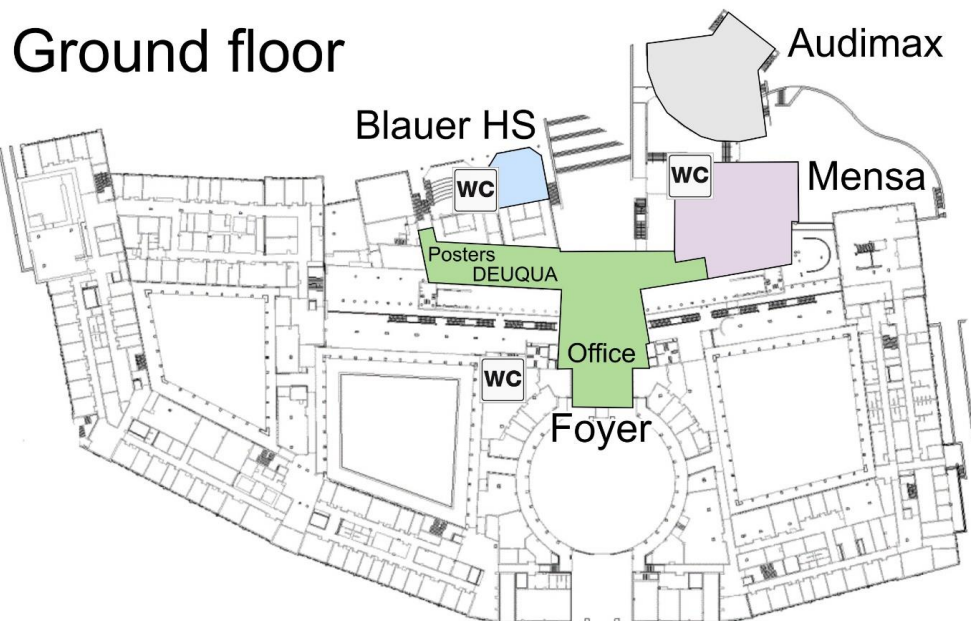
	Third floor	A3.001	C 3.006	HS 435	HS 434	HS 431
Rooms	Ground floor	Audimax	Blauer Hörsaal	Foyer	Mensa	



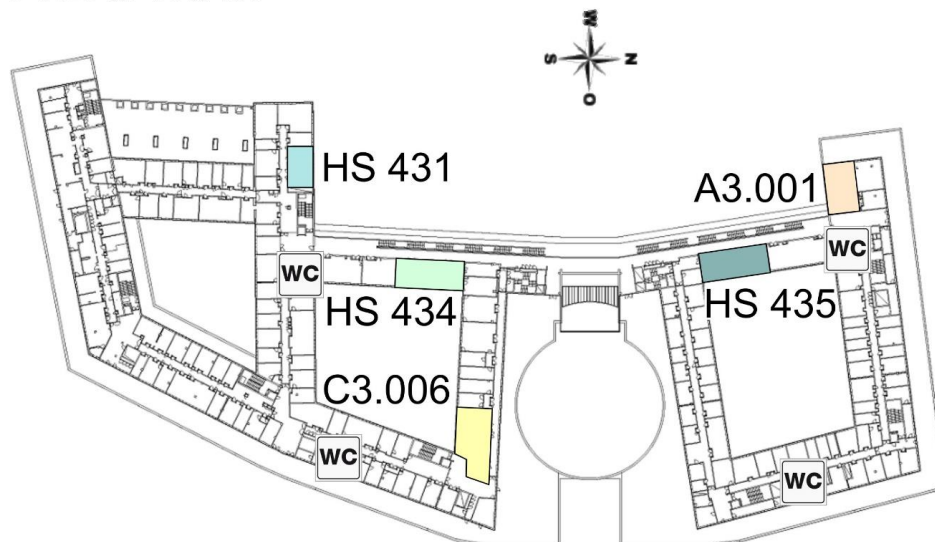
The Abstract Volume is available at:  
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## Locations



### Third floor



### WiFi access via eduroam

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## MONDAY, 23. September

**12:00 – 13:00 LUNCH BREAK**

**14:00 – 14:30 COFFEE BREAK**

### Pre-conference workshops

#### **Thermochron Workshop, 9:00 – 18:00, A 3.001**

Led by: **Bjarne Friedrichs, Bianca Heberer, Nicolas Villamizar, Christoph von Hagke**

Contents:

- Theoretical Introduction (Basics and Applications of Low-Temperature Thermochronology)
- Sample Preparation (Crystal Selection and Documentation for (U-Th)/He Dating)
- Lab Tour (Demonstration and Explanation of (U-Th)/He Analytical Routines)
- Thermal History Modeling (Fundamentals and Exercises using Synthetic and Natural Data)

9:00 – 10:30	Theoretical Introduction <b>(Christoph von Hagke)</b>	
10:30 – 10:45	additional Coffee Break	
10:45 – 12:00	Sample Preparation <b>(Bianca Heberer)</b>	Lab Tour <b>(Bjarne Friedrichs)</b>
12:00 – 13:00	<b>LUNCH BREAK</b>	
13:00 – 14:15	Lab Tour <b>(Bjarne Friedrichs)</b>	Sample Preparation <b>(Bianca Heberer)</b>
14:15 – 14:30	<b>COFFEE BREAK (Foyer)</b>	
14:30 – 16:30	Thermal History Modeling <b>(Nicolas Villamizar)</b>	
16:30 – 16:45	additional Coffee Break	
16:45 – 18:00	Case Studies / Wrap-Up / Questions (all)	

Language: English, free of charge, coffee breaks included

## Teachers' Workshop, 10:00 – 17:00, C 3.006

### **Why geology is needed in the classroom** (in German)

Led by: **Bernhard Hubmann**

The program consists of lectures, the opportunity to try out teaching materials and, above all, sufficient time and space for discussion.

<b>Hilberg</b>	Geologie begreifen – digitale Lernspiele und analoge Modelle für den Geologie - Unterricht
<b>Unger</b>	Erdwissenschaften und Schulbücher
<b>Nievoll</b>	"Die unsichtbaren Schätze im Klassenzimmer: Kritische Rohstoffe für eine nachhaltige und digitale Welt"
<b>Sachsenhofer</b>	Fluch und Segen: Wie GeowissenschaftlerInnen zur Energiewende beitragen
<b>Riedl &amp; Gulas-Wöhri</b>	Young European GeoExplorer
<b>Moser</b>	„Es sind die G'schichten, Herr Professor... “ – Erfahrungen und Erkenntnisse aus 22 Jahren Edelsteinkunde-Unterricht im Fachbereich „Schmuck Metall Design“ an der HTL Ortweinschule Graz.
<b>Hubmann &amp; Krenn</b>	Die Grazer Perspektive auf das Lehramtsstudium Biologie und Umweltkunde: wie sieht die Ausbildung aus und wie „ticken“ die Studierenden?

**Conclusion:** Discussion on the forthcoming reduction of Earth Science issues in teacher training programs.

Language: German, free of charge, coffee break included

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## Ice Breaker (19:00, Mensa)

## TUESDAY, 24. September

**10:00 - 10:30 COFFEE BREAK**

**12:30 – 14:00 LUNCH BREAK**

**16:00 – 16:30 COFFEE BREAK**

### **Pangeo-DEUQUA Opening (8:30 – 8:45, Audimax)**

Words of welcome

### **ÖGG Award Ceremony (8:50 – 10:00, Audimax)**

- Ehrenmitgliedschaften to **Dirk van Husen** and **Reinhard Sachsenhofer**
- Otto Ampferer-Preis 2024 to **Simon Schorn**
- Hans Höfer von Heimhalt-Preis 2024 to **Georg Erharder**, short presentation on his research: "*Geology and Engineering: A Two-Way Road of Innovation and Discovery*"
- Eduard Sueß Medaille to **Franz Neubauer**: "*Mit Eduard Sueß in Gebirgen unterwegs*", laudatory speech by Wolfgang Frisch

### **Pangeo Plenary Session (10:30 – 17:30, Audimax)**

Impulse talks by invited speakers. Talks are related to the different workshop topics on Wednesday.

**Arne Ramisch**, Universität Innsbruck: Tracing Elements to Landscapes: Core Scanning and the Dynamics of Earth's Surface

**Andreas Wölfler**, University of Hannover: Tectonics and landscape evolution in the Gurktal Alps: New data, models and open questions

**Jochen Kolb**, Karlsruher Institut für Technologie: Lithium resources in geothermal brines of the Upper Rhine Graben and possible extraction technologies

**Alissa Kotovsky**, Utrecht University, Caroline E. Seyler, James D. Kirkpatrick: How 'refrigeration weakening' drives catastrophic subduction initiation

**Jan Piotrowski**, Aarhus University: Water at the ice-bed interface and below: processes, sediments and landforms

**Gaudenz Deplazes**, Nagra: Tracing glacial erosion in Quaternary sediments of Northern Switzerland

### **ÖMG Award Ceremony (17:30 – 18:30, Audimax)**

- Felix Machatschki Preis to **Simon Schorn** with short presentation on his research: "*In the wake of giants: Building upon the legacy of Otto Ampferer & Felix Machatschki*"

## DEUQUA Sessions (8:50 – 17:30, Blue lecture hall and Foyer)

### Terrestrial records of paleoenvironments and -climates (Blue lecture hall)

(9:00 – 12:30)

Chaired by Tobias Sprafke, Stephanie Neuhuber, Michael Zech & Philipp Schulte

#### 9:00 – 10:00 Terrestrial records of paleoenvironments and -climates I

<b>Zeeden et al.</b>	Reconstructing past climate from Loess-Palaeosol Sequences: Challenges of calibration functions
<b>Böse et al.</b>	The challenge to decipher Late Pleistocene to Holocene geomorphological processes in the Taiwanese mountains
<b>Novak, Andrej</b>	From seasons to centuries: activity of sedimentary processes on alpine alluvial fans (Planica Valley, NW Slovenia)
<b>Sauer</b>	When and why did floodplain sediments in Mongolia start to accumulate?

#### 10:30 – 11:30 Terrestrial records of paleoenvironments and -climates II

<b>Stojakowits et al.</b>	Environments during the Late Middle Pleistocene in the Heidelberg Basin, Upper Rhine Graben (Germany)
<b>Labahn et al.</b>	Cyclicity patterns within Quaternary vega formation on the eastern Canary Islands
<b>Mayr et al.</b>	A composite geochemical record based on X-ray fluorescence scanning and radiocarbon dating for the Upper Palaeolithic site Kammern-Grubgraben (Austria)
<b>Vinnepand et al.</b>	Lake Bosumtwi – A million year record of hydro-climate oscillations in West Africa

#### 11:30 – 12:30 Terrestrial records of paleoenvironments and -climates III

<b>Prochnow et al.</b>	A 7500 year long, 30-yr-resolution $\delta^2\text{H}$ record from Moossee, Switzerland, indicates strong influence of solar activity on paleohydrology
<b>Oehler et al.</b>	Central European LGM temperatures revealed using an innovative luminescence approach
<b>Rettig et al.</b>	Glacier evolution in the Valsugana (south-eastern European Alps) during the Last Glacial Maximum and the Late Glacial
<b>Asch et al.</b>	The International Quaternary Map of Europe and Adjacent Areas: Based on a plethora of detailed regional mapping results

#### 14:00 – 16:00 POSTER SESSION (Foyer)

##### Terrestrial records of paleoenvironments and -climates (thematically listed)

<b>Otto et al.</b>	Reconstructing past glacier extents in the Chilean Altiplano (18.5°-19° S) - Regional patterns and paleoclimatic implications
<b>Griesmeier, Le Heron</b>	What happened after the Last Glacial Maximum in the Sölk Valleys (Styria, Austria)?
<b>Winsemann et al.</b>	Entangled external and internal controls on periglacial alluvial fan evolution: the Late Pleistocene Senne and Heller fans in the Münsterland Embayment and Elbe Valley (Germany)
<b>Eder et al.</b>	The sedimentological anatomy of a landslide in Embach, Salzburg.
<b>Marburg et al.</b>	Introducing DFG-research project RO 7078/2-1: Late Pleistocene dune archives spanning from the Canary to the Tyrrhenian Basin – Paleoenvironmental reconstruction via dust imprint from source areas in northern Africa
<b>Kögler et al.</b>	Pleistocene river terrace development in the Baza Basin, Spain: Processes and chronology
<b>Meng et al.</b>	Holocene mollusc faunas in a northern German lowland river system of the Baltic Sea region (Peene River, Mecklenburg-Western Pomerania)
<b>Wrozyna et al.</b>	Middle to late Holocene climatic changes in the Dominican Republic, Caribbean Region, deduced from ostracode and coral stable oxygen and carbon isotope values.
<b>Biermanns</b>	Adiabatic winds, put into mathematical formulas

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### **Regional Quaternary and applied geology (in alphabetical order)**

<b>Asch</b>	IQUAME 2500 - The International Quaternary Map of Europe and Adjacent Areas, scale 1:2,5 million: Hands-on Harmonisation and Review of the Austrian and German part
<b>Rother et al.</b>	Die Forschungsbohrungen Concordia-See und Königsau (ehemaliger Ascherslebener See, Sachsen-Anhalt): Neue Multiproxy-Analysen zur detaillierten Gliederung der Weichsel-Kaltzeit
<b>Weidenfeller et al.</b>	Integrated geological map of the East Eifel Volcanic Field (EEVF)

### **Anthropogenic impact on the development of landscapes**

<b>Boettcher et al.</b>	The search for environmental changes in the tropical Lago Enriquillo (Dominican Republic) using multi-isotope (H, C, N, O, S) partitioning
<b>Koukal et al.</b>	FT-IR microplastics identification in natural sediments of Austria and the Republic of Korea – introduction and first results
<b>Pauly et al.</b>	OSL dating of Holocene fluvial sediments of the Wiesent River in the Northern Franconian Alb (Bavaria, Germany)
<b>Schneider et al.</b>	Anthropogene Kleinreliefformen als Relikte früherer Landnutzung – Großflächige Kartierung aus digitalen Geländemodellen
<b>Wulf et al.</b>	Preliminary geochemical results from a gravity core from Stechlinsee in northeastern Germany

**16:30 – 17:30 Keynotes Workshop: Glacial erosion and deposition** (see Pangeo plenary Session)

**DEUQUA General Assembly (17:30 – 19:00, Blue lecture hall)**

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**Conference Dinner (19:00, Mensa)**

## WEDNESDAY, 25. September

**10:00 - 10:30 COFFEE BREAK**

**12:30 – 14:00 LUNCH BREAK**

**16:00 – 16:30 COFFEE BREAK**

### **Full-day Workshops (8.30 – 18:00, various lecture rooms)**

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#### **Workshop Earth Surface Dynamics (8:30 – 18:00, HS 434)**

Responsible organizers: Michael Strasser, Jörg Robl, Sylke Hilberg

#### **BLOCK 1 | Mass movements (Keynote talk: Patrick Oswald)**

<b>Oswald et al.</b>	New perspectives on volume and emplacement dynamics of the Köfels rockslide deposits by combined geophysical–geological studies
<b>Westreicher et al.</b>	Multiple Datierung eines Holozänen Bergsturzes am Stöttlbach in der Mieminger Kette (Nördliche Kalkalpen, Tirol)
<b>Ortler et al.</b>	Signals of two earthquakes at Lake Altaussee (Salzkammergut, Austria)
<b>Uhlir</b>	Exceptional gravitational mass movements within the Austrian UNESCO Geoparks
<b>Fink et al.</b>	Recent sediment dynamics in the landslide-debris flow complex of the Sattelkar, Obersulzbachtal, Hohe Tauern
<b>Haunsperger et al.</b>	3D modeling of topographic stress in alpine landscapes: The competition between relief formation and destruction
<b>Hergarten</b>	A modified Voellmy rheology for modeling rapid mass movements

#### **BLOCK 2 | Water, weathering, and fluxes (Keynote talk: Benedikt Pleyer)**

<b>Pleyer et al.</b>	Chemical erosion and dissolved load of a calcareous torrential catchment in the northern Alps
<b>Schultz &amp; Bufer</b>	Weathering fluxes under moderate erosion rates – the case of the Black Forest, Germany
<b>Hilberg &amp; Hauser</b>	Grubenwässer der Altbergbaue im Geopark Erz der Alpen
<b>Winkler et al.</b>	Das Abflussverhalten von Blockgletschern und übergeordneter alpiner Einzugsgebiete – ein Blick in die Zukunft
<b>Vremec et al.</b>	Trend analysis of Alpine spring discharge in Austria: Interplay between climate and catchment characteristics
<b>Höfer-Öllinger</b>	25 Jahre Quartär- und Hydrogeologie des Nordöstlichen Flachgaus
<b>Tenczer et al.</b>	Alpine soils from the Rieding valley: geochemical, mineralogical and granulometric analysis
<b>Kahre &amp; Otto</b>	Sediment core analysis of glacial lakes Löbensee and Salzbodensee, Hohe Tauern, Austria

#### **BLOCK 3 | Long term landscape evolution (Keynote talk: Maud Meijers)**

<b>Meijers et al.</b>	Quantifying surface elevations in deep time through stable isotope paleoaltimetry
<b>Stuewe et al.</b>	Surface uplift of the Eastern Alps - much faster than we thought?
<b>Robl et al.</b>	Old orogen - young topography: lithology governs landscape evolution in the uplifting Bohemian Massif
<b>Ranftl et al.</b>	Miocene and Quaternary sediments in the Wachau region, revisited
<b>Brisson et al.</b>	Using low temperature thermochronometers for model selection: An approach for choose the best geometry for the Eastern Alps
<b>Rau et al.</b>	Investigating the Influence of Uplift on the Central European Drainage Pattern using a Landscape Evolution Model
<b>Dremel et al.</b>	Old Orogens - Young Topography: Exploring the Effects of Continental Rifting on Erosional Dynamics and Topographic Development

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<b>HAMPL et al.</b>	Uranium-, vanadium- and chromium-bearing reduction spheroids in karst bauxite of the Unterlaussa mining district (Upper Austria)
<b>Eichkitz et al.</b>	Geoelektrik und Sub-Bottom Profiling an der Grenzmur im Bereich Bad Radkersburg
<b>Nuss et al.</b>	Holocene Coastal Dynamics in the Eastern Gulf of Thailand

## Combined Workshop Earth's Spheres (Crust, Mantle & Core) and Regional Geology (8:30 – 18:00, HS C 3.006)

Responsible organizers: Bernhard Grasemann, Christoph von Hagke, Walter Kurz, Bianca Heberer

### BLOCK 1 (8:30 – 10:00) Petrology & Geochronology (Chairs: W. Kurz & C. von Hagke)

Talk 1 & 2 (12+3 minutes)

<b>Hollinetz et al.</b>	Not sexy, but still dateable: Unravelling the P-T-t-d evolution of low-grade Permian metasediments using xenotime geochronology (Austroalpine Unit, Eastern Alps)
<b>Költringer et al.</b>	The Sankt Leonhard nappe: HP-UHT metamorphic rocks within the Gföhl Nappe System, where and how to draw the nappe boundary

#### Picos à 2 minutes, followed by posters:

<b>Sawasdee et al.</b>	Geochronology, Geochemistry and Petrology of Metabasites and Metadacites from the Nan Suture Zone, Northern Thailand
<b>Santitharangkun et al.</b>	Petrology and Geochronology of Igneous and Metamorphic Rocks from the Inthanon Zone: Implications for the Tectonic Evolution of Northwestern Thailand
<b>Fehleisen et al.</b>	Petrology and geochemistry of the Belhelvie and Arnage-Haddo House gabbro intrusions and their contact aureoles - Aberdeenshire, Scotland
<b>Raso et al.</b>	Diabases are petrologists' best friends: quantitative P-T constraints on the Eoalpine metamorphic gradient in the Ötztal nappe using diabase dikes
<b>Karner-Rühl et al.</b>	Pre-Alpine Metamorphism in Alpine low-grade metamorphic units in the Eastern Alps
<b>Arnold et al.</b>	Petrographie exotischer Gerölle aus dem Helvetikum im Gschlifgraben (OÖ)
<b>Haas et al.</b>	Provenance of the Permo-Mesozoic cover sediments of the Seckau-Schladming nappe system revealed by detrital zircons
<b>Haas et al.</b>	Unravelling the pre-Alpine evolution of Alpine basement units by U-Pb zircon geochronology – a case study of the Austroalpine Schladming nappe system
<b>Heberer et al.</b>	Deciphering the 4-D evolution along and across the Insubric Line using a multi-method geo- and thermochronological approach

### BLOCK 2 (10:30 - 12:30), Tectonics and Structural Geology 1 (Chairs: B. Grasemann & B. Heberer)

Talk 1 – 4 (12+3 minutes)

<b>DeFelipe et al.</b>	Alpine deformation mechanisms along central and north Iberia Peninsula: a wide-angle seismic cross-section
<b>Villamizar-Escalante et al.</b>	Slab length and slab tearing control asymmetric exhumation of the Calabrian Arc
<b>Sieberer et al.</b>	Control of lateral strength variations on deformation of the Adriatic plate: insights from lithospheric-scale analogue models
<b>Hinsch et al.</b>	Geometrical kinematical forward modelling of stages in easternmost Alps development

#### Picos à 2 minutes, followed by posters:

<b>Ortner et al.</b>	Thrusts and unconformities in tectonic maps: The Trattberg thrust and the Trattberg fault system
<b>Iglseder et al.</b>	Initial exhumation of the Upper Austroalpine Unit along the Walchen Shear Zone (Styria, Austria)
<b>Neubauer et al.</b>	Controls of the collisional architecture in an evaporite-bearing fold-thrust wedge: the central Northern Calcareous Alps
<b>Louis et al.</b>	Low-temperature thermochronology and vitrinite reflectance data reveal long-wavelength exhumation of the Molasse basin

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<b>Pengg et al.</b>	Petrophysical and sedimentological characterization of fault rocks from the Vienna Basin: Implications for induced seismicity and fault reactivation
<b>DeFelipe et al.</b>	Characterizing gravimetric and magnetic anomalies in the South of Salamanca (Spain): implications on the tectonic structure and Sn-W mineralizations
<b>von Hagke et al.</b>	Triangle Zones as Mechanical Gages for Fold-Thrust-Belts
<b>Barjaktarović et al.</b>	Inner Dinarides revisited: Opening and closure of a Neotethys branch in Western Serbia
<b>Guo et al.</b>	Cenozoic tectonic evolution of the West Qinling and its effects on the Cenozoic climate evolution, NE Tibetan Plateau

### **BLOCK 3 (14:00 – 16:00), Tectonics and Structural Geology 2**

**(Chairs: B. Grasmann and Christoph von Hagke**

Talk 1 – 4 (12 +3 minutes)

<b>Neubauer</b>	Tectonic models for the Austroalpine structure in Eastern Alps: nomenclature matters
<b>Hinterwirth et al.</b>	Re-interpretation of the TRANSALP seismic section in the light of a new tectonic subdivision of the western Northern Calcareous Alps
<b>Pomella et al.</b>	The Subpenninic units in the southwestern Tauern Window
<b>Brandner</b>	Permotrias-Paläogeographie der westlichen Nördlichen Kalkalpen und deren Zwangspunkte bei Deckenüberschiebungen und Seitenverschiebungen.

### **Poster session and plenum discussion**

### **BLOCK 4 (16:30 – 18:00) , Paleontology & Stratigraphy & Mapping**

**(Chairs: W. Kurz and B. Heberer)**

Talk 1 – 4 (12+3 minutes)

<b>Harzhauser et al.</b>	The Neogene of the Vienna Basin between geodynamics and global climate
<b>Mrdak et al.</b>	Enigmatic traces of volcanism in the Rhaetian of a far-travelled Late Triassic Hallstatt nappe in northern Montenegro
<b>Kranner et al.</b>	Continuative foraminiferal research using the Enhanced Benthic Foraminifera Oxygen Index
<b>Haider</b>	Tethys Research Data Repository – an approach to provide sustainable and readable valuable geoscientific data for further research

### **Picos à 2 minutes, followed by posters:**

<b>Neubauer</b>	Facies analysis in a poorly exposed siliciclastic area: the Upper Cretaceous basal Gosau Conglomerate at Gaisberg, Austria
<b>Hofmayer et al.</b>	Revision of the „Robulus-Schlier“ in Austria – A stratigraphic enigma in the North Alpine Foreland Basin
<b>Diersche</b>	Blassangerl-Hundstodscharte Fm - a new Lower to Middle Miocene lignite formation from the Steinernes Meer, NCA/Tirolic, Germany and Austria
<b>Diersche et al.</b>	The Ledererkar Formation – a new Late Jurassic Formation with type-locality in the Steinernes Meer (Northern Calcareous Alps)
<b>Hofmayer et al.</b>	A new vertebrate fossil in Upper Austria – Preparation, 3D Modelling and Regional Geology
<b>Andreea et al.</b>	Jurassic to Early Cretaceous history of the obducted Mirdita ophiolites in Albania: new insights based on a Late Jurassic – Early Cretaceous sedimentary succession above the from Mali I Shejtit
<b>Hintersberger et al.</b>	EAGLe = Erstellung der Allgemeinen Geologischen Legende für Österreich im Maßstab 1:50.000

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## Mineral Raw Materials, and Energy Transition (8:30 – 18:00, HS 435)

Responsible organizers: David Misch, Frank Melcher

### BLOCK 1 (08:30 - 10:00) Impuls talks Mineral Resources & Geoenergy

08:30 am – 08:40 am Opening, Talk 1 – 4 (15+5 minutes)

<b>Melcher</b>	The Critical Raw Materials Act: what does it mean for domestic production?
<b>Bertrandsson Erlandsson et al.</b>	The Eastern Alpine metallogenic province: A resource of critical and strategic elements?
<b>Hölzel</b>	Geoenergie – Ziele, Potentiale und Forschung in Österreich
<b>Kulich &amp; Ott</b>	CO2 storage options in Austria & current developments

### BLOCK 2 (10:30 - 12:30) Impuls talks Mineral Resources & Geoenergy

10:30 am - 10:40 am, Block 1 recap, Talk 5 – 7 (15+5 minutes)

<b>Angerer et al.</b>	Geological Surveys as multiplier for domestic exploration incentives – Austria's response to the Critical Raw Materials Act
<b>Nachtmann</b>	Fossil Energy Sources in Light of the Energy Transition
<b>Conradi et al.</b>	Aquifer Thermal Energy Storage (ATES) – Review of Principles, Significance and Feasibility of ATES Applications in Neogene Strata from the Vienna Basin

### 11:40 am - 12:30 am Open discussion and wrap-up of morning session (Blocks 1+2)

### BLOCK 3 (13:30 – 14:45) Poster Session Mineral Resources & Geoenergy

(5 min slots per poster, listed in alphabetical order)

<b>Akhverdiyev et al.</b>	Methodical seismic inversion techniques for quantitative interpretation in the Libyan Murzug basin
<b>Altenberger et al.</b>	Innovative stream sediment analysis for tungsten exploration: A case study in the Rauris Valley (Salzburg, Austria)
<b>Arató et al.</b>	Fingerprinting natural graphite deposits
<b>Bakker et al.</b>	The origin of sparry magnesite deposits of Brumado (Bahia, Brazil) - evidence from fluid inclusions
<b>Bokelmann et al.</b>	Passive seismic imaging for geothermal reservoirs: the Schwechat depression under Eastern Vienna
<b>Efendiyev et al</b>	Geomechanical modeling of well sections based on the results of complex geophysical and geological-technological studies during the drilling process
<b>Geringer et al.</b>	Polyphase deformation of the Graz Paleozoic recorded in the Pb-, Zn-, Ba- and Ag-bearing Arzberg deposit
<b>Gopon et al.</b>	Precious and critical metal potential of historic Cu-Au-As mine waste in the Eastern Alps
<b>Jud et al.</b>	Seismische Exploration für tiefe Geothermie in Braunau– Akquisition und Processing einer kabellosen 2D-Vibro-Seismik mit STRYDE Nodes.
<b>Sachsenhofer et al.</b>	From peat facies to oil quality: Investigations in the Barito Basin (Indonesia)
<b>Safaei et al.</b>	CO2 Storage Potential of Low-rank and Medium-rank coal deposits from Austria and Kazakhstan
<b>Shi et al.</b>	Unraveling the micromechanical response to mudstone compaction: A combined approach of nanoindentation mapping and machine learning data analysis
<b>Skerbisch et al.</b>	Comprehensive characterization of rock salt from the Haselgebirge Formation: Insights for cavern storage of hydrogen
<b>Weitz et al.</b>	Geochemical characterization of the Göstling formation in the Scheiblingbachgraben: Implications for climate change and hydrocarbon potential

### BLOCK 4 (14:45 – 16:30) Mineral Resources & Geoenergy

#### Open discussion and wrap-up of the workshop

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## Glacial erosion and deposition (8:30 – 12:30, Audimax)

Responsible organizers: Lukas Gegg, Jörg Lang

### BLOCK 1: Regional scale

<b>Cohen-Corticchiato et al.</b>	Erosion and sediment transport by subglacial water in the Rhine glacier during the LGM
<b>Kamleitner et al.</b>	Alpice - ongoing compilation of geochronological & geo(morpho)logical constraints on Alpine paleoglacier evolution
<b>Firla et al.</b>	The timing of the infilling of glacially overdeepened structures from the northern Alpine foreland in the context of tunnel valleys from the Fennoscandian ice shield
<b>Jungdal-Olesen et al.</b>	Modelling tunnel valley erosion in northern Germany during the first icesheet advance (Elsterian, MIS 12) – a conceptual model and preliminary
<b>Lang et al.</b>	Structural control on tunnel-valley incision: Fact or fiction?

### BLOCK 2: Landform scale

<b>Fiebig et al.</b>	End moraine system of Lake Altaussee
<b>Schmalfluss et al.</b>	The paleolake deposits of Bad Aussee (Austria): New insights into pre-LGM inner-alpine landscape dynamics of the Eastern Alps
<b>Kettler et al.</b>	Unravelling the maximum extent of Middle Pleistocene Glaciation in the Ybbstal Alps, Austria
<b>Pomper et al.</b>	Overdeepening-fill profiles in southwestern Germany
<b>Breuer et al.</b>	Sedimentary Architecture of a Pleistocene Tunnel-Valley Fill from 3D Seismic Data in the German North Sea
<b>Hofmann &amp; Kox</b>	Extent and dynamics of the last glaciation in Kellwassertal, Harz Mountains, central Europe

### BLOCK 3: Grain scale

<b>Reitner &amp; Menzies</b>	Subglacial deformation, till formation and deformable bed conditions: The Late Pleistocene sequence of Einödgraben (Aurach, Kitzbühel Alps, Austria)
<b>Heninger</b>	Bringing Order to Chaos: Micromorphological Analysis of Late Palaeozoic Glacial Diamictites
<b>Piotrowski et al.</b>	Response of till to subglacial shear stress simulated in ring-shear experiments derived from X-ray computed microtomography
<b>Schuster et al.</b>	Quantitative CT scan analysis: an innovative tool for interpreting ice-contact sediments from overdeepened basins of the northern Alpine foreland
<b>Gegg et al.</b>	A geotechnical view on glacial sediment profiles

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### Pangeo Session (14:00 – 18:00, HS 431)

#### Analytical Advances

Chairpersons: **Christoph Hauzenberger, Bjarne Friedrichs**

This session comprises five oral presentations (12 + 3 minutes) with an analytical focus with plenty of room for additional discussions and laboratory tours according to participants' interests afterwards.

<b>Degenhart et al.</b>	Micro-computer-tomographic mineralogical and textural evaluations of Egyptian Blue Spheres
<b>Auer et al.</b>	New multiproxy approaches in paleoenvironmental reconstruction – An example from a Late Miocene upwelling cell in the northwestern Indian Ocean
<b>Santitharangkun et al.</b>	EPMA and LA-ICP-MS monazite dating in the Western Gneiss Belt, Northern Thailand: An Over 200-Ma Spread of Dates
<b>Altenberger et al.</b>	Simplifying LA-ICP-MS data processing and interference correction using the non-commercial G.O.Joe software tool
<b>Friedrichs et al.</b>	Development of an analytical protocol for solution ICP-MS analysis in (U-Th)/He thermochronometry

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### Pangeo-DEUQUA Session (14:00 – 17:30, Audimax)

#### Regionale Quartär- und angewandte Geologie (in German)

Chaired by Christian Hoselmann, Michael Hermann Konrad & Henrik Rother

Session of the German state offices (Landesämter) and Austrian state geological services (Landesgeologie).

#### 14:00 – 16:00 Regionale Quartär- und angewandte Geologie I

<b>Börner et al.</b>	Aktueller Stand und Methoden der Bohrungsaufnahme im Quartär Mecklenburg-Vorpommerns
<b>Meinsen et al.</b>	Heterogener und tiefer als zuvor bekannt – aktueller Stand der Neumodellierung der Quartärbasis in Niedersachsen (Norddeutschland)
<b>Endtmann et al.</b>	Die Forschungsbohrung Klosterrohrbach in der Helme-Niederung (Sachsen-Anhalt) – Interdisziplinäre Untersuchungen an Sedimenten aus dem obersten Mittelpleistozän
<b>Posch-Trözmüller et al.</b>	Fremddatenmanagement an der GeoSphere Austria
<b>Melzner et al.</b>	Ein GIS-basiertes Dokumentations- und Kommunikationstool für Gemeinden im Katastrophenfall
<b>Linner et al.</b>	Hierarchische Liste der Gesteinsbegriffe der GeoSphere Austria – Standard für geologische Aufnahmen, Lithologie und Generallegende

#### 16:30 – 17:30 Regionale Quartär- und angewandte Geologie II

<b>Jawecki et al.</b>	Landesgeologie Wien im U-Bahn-Bau: Geologie in Prognose und Ausführung
<b>Vigl</b>	Rutschung Hochreute in Hörbranz/Vorarlberg
<b>Konrad, H. M.</b>	Muren, Rutschungen, Felsstürze – der Landesgeologe im Katastropheneinsatz

Klicken Sie hier, um Text einzugeben.

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## Public Evening lecture (19:00, Audimax)

***The large cave systems of the Eastern Alps – Archives of landscape evolution*** (in German)

By **Lukas Plan** (Naturhistorisches Museum Wien)

The karst plateaus of the Eastern Alps contain about 15,000 caves, some of which are over 100 km long and/or 1 km deep. The talk will give an overview of these caves and what they tell us about the post Miocene landscape evolution.

## THURSDAY, 26. September

**10:00 - 10:30 COFFEE BREAK**

## Pangeo Discussion Session (8.30 – 11.30, Audimax)

Presentation of workshop results, discussion

## DEUQUA Session (8:30 – 11:30, Blue lecture hall)

### 8:30 - 10:00 Anthropogenic impact on the development of landscapes

Chaired by Eileen Eckmeier & Anna Schneider

<b>Wagreich</b>	Anthropocene Geology
<b>Grimm et al.</b>	Late Holocene sedimentary floodplain architecture & human interaction of the Wiesent River (Northern Franconian Alb, Bavaria, Germany)
<b>Hatzenbühler et al.</b>	Anthropogenic stratigraphic signals downstream a metropolis: Extracting Vienna's signature from Danube River plain archives
<b>Weißl et al.</b>	Die Donau-Auen stromab von Wien als Sedimentarchiv

## DEUQUA Awards Ceremony (10:30 - 11:30, Blue lecture hall)

Nachwuchspreis (young researcher award) to **Felix Martin Hofmann**.

Verdienst Medaille (medal of merit) to **Achim Brauer** (followed by a short medal lecture).

## Pangeo-DEUQUA Closing Ceremony (11:30 – 12:00, Audimax)

Poster awards and the passing of the baton