



Past Present *Future*



# GEOMÜNSTER 2019

22–25 September 2019 | Münster | Germany

## Programme



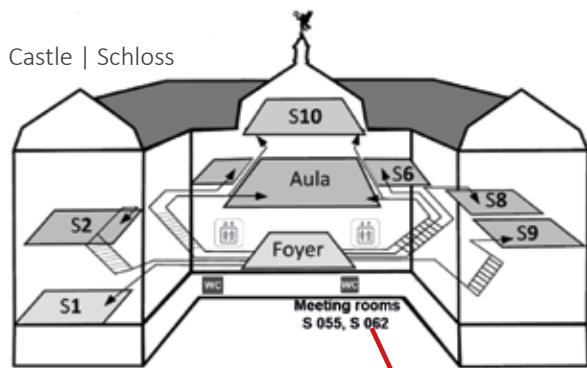
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# Conference venue | Floor plan

The conference will be held in the castle of the University of Münster and adjoining buildings:

Castle   Schloss Schlossplatz 2   48149 Münster	Aula, S 8: Lecture sessions (First floor) S 10: Lecture sessions (Second floor) S 055, S 062: Lecture sessions, meetings (Basement floor) Foyer: Registration & Info-Desk, Presentation of DGGV, DMG, DVGeo, FH-DGGV
Tent in front of the Castle	Poster Session / Socials and Exhibition Coffee Breaks Info-Desk
Lecture hall building (Hörsaalgebäude) Schlossplatz 46   48143 Münster	H1: Opening, Plenaries (Ground floor) H2, H3, H4: Lecture session (First floor)
Freiherr vom Stein Haus Schlossplatz 34   48143 Münster	Aula   VSH 219 (Second floor)
Schlossplatz 4	SP4 201 (Second floor)
Schlossplatz 7	SP 7

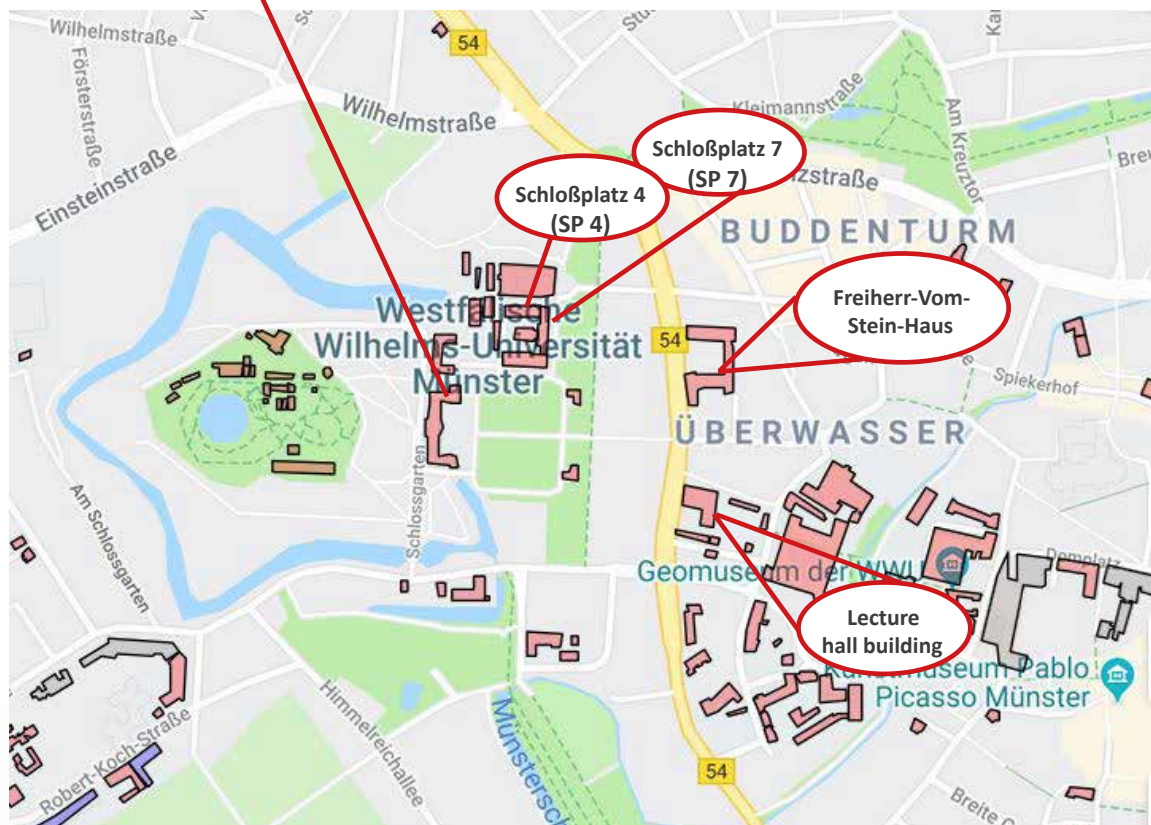


## How to get there

From Central Station: Buses leave every 5- 10 minutes in the direction of the castle, bus stop "Landgericht". For example:

- line 11 (from platform C1, direction "Dieckmannstraße")
- line 22 (from platform C1, direction "Rüschhausweg")
- line 12 (from bus platform B1, direction "Heekweg")
- line 13 (from bus platform B1, direction "Eissporthalle")

From the bus stop the way to the castle is signposted. The registration desk can be found in the Foyer of the castle.



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# Welcome to the GeoMuenster 2019

Dear participants of the GeoMünster 2019 conference,

it is a great pleasure to welcome you to Münster and the GeoMünster 2019 conference, the joint annual meeting of the Deutsche Geologische Gesellschaft – Geologische Vereinigung (DGGV) and the Deutsche Mineralogische Gesellschaft (DMG).

GeoMünster 2019 will offer ca. 500 presentations in 50 sessions covering 13 scientific themes. This booklet contains an overview of the conference program as well as the detailed programme of each of the 4 days of the GeoMünster 2019. The abstracts are available for download from the conference website (<http://www.geomuenster2019.de/>). Two field trips (pre- and postconference) will highlight the Quaternary and Cretaceous geology of the Münster region, a third trip will examine the geological evolution of the Ardennes.

The social program starts with the icebreaker on Sunday. We decided to forego a conference dinner in favour of extended poster sessions in the poster and exhibition tent closing the conference programme on Monday and Tuesday in the afternoon. There beverages and finger food will be served. Monday evening, the association of the Earth Science students GeStEIN e.V. organizes a fun and entertaining Science Slam. On Tuesday evening, Colin Devey from Kiel University will be giving a public lecture in German on the “Expedition Deutschland” theme popular from the Terra X TV program. We are looking forward to this joint meeting and hope you will enjoy all the scientific and social aspects of the GeoMünster 2019 conference, and the city of Münster.

Many people from all walks of our scientific disciplines have put in time and effort to make the GeoMünster 2019 possible. This conference would have been impossible to organize without them.

Heinrich Bahlburg, Michael Bröcker, Harald Hiesinger

on behalf of the organizing committee.



## Awards GeoMuenster 2019

DGGV Awards | Ceremony on 23 September 2019, 15:45-16:30, H 1

*Serge-von-Bubnoff Medal:* Dr. Sylke Hlawatsch (Richard-Hallmann-Schule, Truppenkamp)

*Lecture:* **More Geosciences in German Schools: Opportunities for Geoscientists to Support the Training and Selection of Students for the Annual Competition „International Earth Science Olympiad (IESO)“**

*Monday 23 September 2019, 09:30, Schloss S 055*

*Leopold-von-Buch-Medal 2019:* Prof. Dr. Xavier Le Pichon (Collège de France)

*Lecture:* **Pangea and the Lower Mantle**

*Wednesday 25 September 2019, 10:00, Schloss S 055*

*Hermann-Credner-Award 2019:* Dr. Christoph Grützner (Friedrich Schiller University Jena)

*Lecture:* **Paleoseismology in continental interiors and seismic hazard assessments - what have we learned?**

*Monday 23 September 2019, 09:00, Schlossplatz 7 Hof: SP 7*

*Honorary member:* Prof. Reinhard Gaupp

Outstanding student poster award

All first-author students presenting a poster are eligible to compete for this award. Successful students will be awarded financial support (1st place: € 600, 2nd: € 400, 3rd: € 200).

DMG Awards | Ceremony on 24 September 2019, 14:45-15:15, H 1

*Abraham Gottlob Werner Medal:* Prof. Dr. Donald B. Dingwell (Ludwig Maximilian University, Munich)

*Goldschmidt Prize (2018):* Prof. Oliver Plümper (Department of Earth Sciences, Utrecht University, The Netherlands)

*Lecture:* **Quantifying non-hydrostatic, reaction-induced stresses during metamorphic hydration reactions**

*24 September 2019, 09:30, VSH 219 Aula*

*Beate Mocek Prize:* Laura Otter (Sydney) & Ninja Braukmüller (Köln)

*Paul Ramdohr Award (2018):* Anja Allabar (Tübingen)

*Lecture:* **Soufflé collapse: Vesicle shrinkage in hydrous silicate melts during quench**

*24 September 2019, 09:00, Castle S10*

DMG- Paul Ramdohr Award

The DMG is awarding two Paul Ramdohr awards (€ 500) to a young academic for

- >> an outstanding oral presentation
- >> an outstanding poster presentation

Students who wish to enter the contest need to be or to become a DMG member.

DGGV & DMG Awards | Ceremony on 25 September 2019, 11:45-12:00, H 1

*Gustav-Steinmann Medal:* Prof. Dr. Page Chamberlain (Stanford University, USA)

*Lecture:* **Alexander von Humboldt, Paleoaltimetry and Geobiodiversity**

*Tuesday 24 September 2019, 09:30, H 3*

*Rolf & Marlies-Teichmüller-Award/-Fellowship 2019:* Dr. Henny Gerschel (TU Bergakademie Freiberg)

*Lecture:* **Coal as a Natural Archive: New Implications from the Miocene Lignites of the Lower Rhine Basin**

*Wednesday 25 September 2019, 13:00, Schlossplatz 7 Hof: SP 7*

*Bernd-Rendel-Prize of the German Research Foundation(DFG) 2019:* Dini Adyasari (Leibniz Zentrum für Marine Tropen-forschung, Bremen) & Michael Grund (Karlsruher Institut für Technologie)

# Highlights

## Icebreaker

**Sunday 22 September, 19:30-21:00, at tent in front of the castle,** Snacks and drinks are included in the conference fee

## Plenary Lectures

Marin K. Clark

(Associate Professor, Chair for Earth and Environmental Sciences | University of Michigan, USA)

*Building Earth's highest topography: lessons learned from the Indo-Asia mega-orogeny*

**Monday 23 September, 15:00, Lecture hall building H 1**

Craig Manning

(Professor of Geology and Geochemistry | University of California at Los Angeles (UCLA), USA)

*Fluids in the lower crust: deep is different*

**Tuesday 24 September, 14:00, Lecture hall building H 1**

Jim Head

(Louis and Elizabeth Scherck Distinguished Professor of the Geological Sciences | Brown University, USA)

*50 Years Since Apollo: The Earth in the Context of Solar System Exploration*

**Wednesday 25 September, 11:00, Lecture hall building H 1**

## Public Evening Lecture

Colin Devey

(Professor of Dynamics of the Ocean Floor | GEOMAR, Kiel)

*Und dann verschwand ein Ozean' - wie die geologische Geschichte der Erde unsere Zivilisation ermöglicht*

**Tuesday 24 September, 20:00, Lecture hall building H 1 (in German only!)**

## Side events

### Saturday, 21 September

**Short course: Accretionary prisms in subduction earthquake cycles: Application of the dynamic Coulomb wedge theory**

Chair: Armin Dielforder, GFZ Potsdam

(10:00-17:00, CIP-Pool, IGP, Corrensstraße 24, 48149

Münster)

### Sunday, 22 September

**DMG council meeting**

(14:00-17:00, Castle S 055)





## Monday, 23 September

### **DGGV council meeting**

(13:00-14:30, Castle: S 055)

### **DGGV Award Ceremony**

(15:45-16:30, Lecture hall building H 1)

### **General assembly DMG**

(17:45-19:30, Castle: Aula)

### **Guided City Tour through the historic City of Münster**

17:30-19:00, Meeting point: Castle entrance

### **Science Slam**

(19:30-21:00, Schlossplatz 7 Hof: SP 7, in German only!)  
*no fees, registration on site possible, too*

## Tuesday, 24 September

### **AK DMG "Schule und Hochschule"**

(12:30-14:00, Castle S 062)

### **AK Sedimentologie**

(12:30-14:00, Castle S 055)

### **DMG Award Ceremony**

(14:45-15:15, Lecture hall building H 1)

### **General assembly DGGV**

(18:30-20:00, Castle: Aula)

## Wednesday, 25 September

### **DGGV and DMG Award Ceremony**

(11:45-12:00, Lecture hall building H 1)

### **DVGeo board meeting**

(12:00-13:00, Castle S 062)

## Field trips

### Pre-Conference Excursions | Sunday, 22 September 2019

#### **1. Kreide des Münsterlandes: „Die Oberkreide der Osning-Scherzone – Stratigraphie – Beckenentwicklung – Tektonik“ 08:30-19:00**

*Excursion guides: U. Kaplan, M. Dölling and G. Drozdewski*

Die Exkursion führt an den Nordrand des Münsterländer-Kreidebeckens. In den ausgewählten Aufschlüssen (Wettringen, Rheine, Lengerich, Borgholzhausen, Halle) werden die cenoman- und turonzeitlichen Kreideprofile unter stratigraphischen und tektonischen Gesichtspunkten vorgestellt sowie die dynamische Beckenentwicklung aufgezeigt. Während die Schichtenfolge des Cenomaniums noch unter tektonisch weitgehend ruhigen Bedingungen entstand, setzen ab der Cenomanium/Turonium-Grenze im Nordwesten – im Raum Wettringen – synsedimentäre tektonische Aktivitäten ein, die zu Sedimentumlagerungen führten. Diese setzen sich sukzessive nach Südosten wandernd in das Unter- und Mittelconiacium in den Raum Halle fort. Damit einhergehend kam es im Raum Rheine im Unter- und Mittelturonium zur Bildung von Flachwasser-Ablagerungen, während im Raum Lengerich – Halle ein beckenwärtiger Sedimentationsraum entstand. Die Beckenentwicklung steht dabei im Kontext der Entwicklung der komplexen tektonischen Strukturen der Osning-Scherzone als Grenze von Münsterland-Becken und Niedersachsen-Becken.

#### **2. "Springs in the Münsterland—Interdisciplinary Research on the Example of the Baumberge"**

*Excursion guides: Dr. Patricia P. Göbel (in Kooperation mit der FH-DGGV)*

Special features: If the weather is fine, a 6 km hike through the Baumberge will be carried out. If the weather is unstable, buses will be used therefore.

The Baumberge are a hilly landscape (approx. 40 km<sup>2</sup>) west of Münster in Westphalia. With average heights of 150-170 m above sea level, they represent the highest elevations in the central Münsterland. Due to these heights the Baumberge represent a precipitation barrier with comparatively high amounts of precipitation. The rock layers are the last deposits of the recent Cretaceous period (higher Upper Cretaceous) in the entire Münsterland. They form a bowl-like synclinal structure (relief reversal). The percolating rainwater initially collects as groundwater in the synclinal structure and overflows at numerous springs (overflow spring) with a time lag. The springs feed the rivers Rhine, Ems, Ijssel and Vechte, which flow in all directions (hydrographic node). The Baumberge represent an almost closed groundwater ecosystem.

# Themes | Sessions

## Topic 1 – Early Earth

- 1a) The Present is the Key to the Past – Reconstructing Early Earth Environments through Modern Analogues
- 1b) Early Earth Processes: Constraints from the Rock Record

## Topic 2 – Structure and evolution of planetary bodies

- 2a) Petrology, volcanism and surface processes on terrestrial bodies
- 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples
- 2c) Planetary Accretion and Impact Processes
- 2d) Planetary Processes
- 2e) Recent advances in lunar science

## Topics 3 – Orogenesis

- 3a) Dynamics of convergent plate margins
- 3b) Tectono-Metamorphic Evolution of the Cyclades, Greece
- 3c) Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?

## Topic 4 – Continents, oceans and global change

- 4a) Limnogeology and paleolimnology including lagoon systems
- 4b) Beyond Plate Tectonics: Expressions of Plume and Plate Mode in the Continental Lithosphere
- 4c) Palaeogeography through geologic time
- 4d) Latest Achievements in Scientific Ocean and Continental Drilling
- 4e) Archives of environmental changes throughout Earth history: bio- and authigenic mineralization to paleoenvironmental reconstruction
- 4f) Cryospheric changes shape the Earth
- 4g) Advances in geochronology from modern to deep time

## Topic 5 – Magmatic systems and experimental petrology

- 5a) Volatiles in the Earth's Mantle – Elemental Budgets & Cycles
- 5b) Volcanic geology
- 5c) Intraplate volcanism, mantle plumes and continental breakup
- 5d) The role of subduction zones on Earth's dynamic evolution
- 5e) Stable isotope fractionation at high temperatures
- 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface
- 5g) Reconstructing the evolution (P-T-t-X) of magmatic processes
- 5h) Processes and timescales in the evolution of transcrustal magma systems: from field and geochemical observations, through experiments to modelling

## Topic 6 – Metamorphic systems

- 6a) Metamorphic processes
- 6b) Reaction and deformation
- 6c) Fluid-rock interaction: from mechanisms to rates – from atoms to plates





#### Topic 7 – Earth Surface Processes and Basin Analysis

- 7a) Quaternary Geochronology
- 7b) Sediment generation and quantitative provenance analysis
- 7c) Rock and fluid dynamics in deep sedimentary systems
- 7d) The stable isotope toolbox in sedimentary systems: From water-rock-biosphere interactions to (palaeo-) environmental reconstructions
- 7e) 3D applications in geosciences

#### Topic 8 – Applied and Environmental Geosciences

- 8a) Geological and hydrogeological characterisation of reservoir rocks
- 8b) Deep subsurface groundwater systems
- 8c) Geosciences and safe nuclear waste disposal – current status and future directions

#### Topic 9 – The geological signatures of natural hazards and extrem events

- 9a) Natural Hazards like earthquakes, landslides, floods and sea-level changes

#### Topic 10 – Mineral Physics and Mineral Chemistry

- 10a) Minerals in the depths: an experimental approach
- 10b) Detailed insights into geodynamic processes and geotechnical applications through neutron and synchrotron X-ray diffraction

#### Topics 11 – Crystallography

- 11a) Structural properties of minerals and materials

#### Topics 12 – Mineral deposits and mining

- 12a) New Models for Old Deposits
- 12b) Mineral deposits of societal relevance for Europe
- 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications
- 12d) Reuse Potential of Mining Residues

#### Topics 13 – Open Session

- 13a) 3D Geological Modelling and subsurface potentials
- 13b) Young Scientist Session
- 13c) Tectonic Systems (TSK open session)
- 13d) Communicating (geo-)science
- 13e) Building a Global Network of Geochemical Data
- 13f) Research data and software management in times of FAIR and Open Data

# Programme at a glance

## Sunday, 22 September 2019

	Castle: Tent	Castle: S 055
14:00		DMG council meeting
17:00	Registration	
19:30	Icebreaker	

## Monday, 23 September 2019

	Castle: Tent	H1	H2	H3	H4	Castle Aula
08:00	Registration					
09:00				7a)-1	5a)-1	
10:30	Coffee break   poster session   exhibition					
11:15			4d	7a)-2	5a)-2	2e
13:00	Lunch break   poster session   exhibition					
14:30		Opening Ceremony – Welcome address and DGGV Award Ceremony				
15:00		Plenary Lecture: Marin K. Clark (University of Michigan) <i>Building Earth's highest topography: lessons learned</i>				
15:45		DGGV Award Ceremony				
16:30	Poster Social (16:30-18:00) >> 1   2a   2b   2e   4d   4e   5b   5g   5h   6b   6c   7a   7d   8b   9   10a   10b   12a   12b   13a					
17:45						General assembly DMG
19:30						

## Tuesday, 24 September 2019

08:00	Registration					
08:30			4g	7d)-1	13c)-1	2a
10:00	Coffee break   poster session   exhibition					
10:45			4g + e/f	7d)-2	13c)-2	2a + 2b
12:30	Lunch break   poster session   exhibition					
14:00		Plenary Lecture: Prof. Craig Manning (University of California at Los Angeles (UCLA), USA) : <i>Fluids in the lower</i>				
14:45		DMG Award Ceremony				
15:15	Coffee break   poster session   exhibition					
15:45			4e/f	7c	3c	2b
17:30	Poster Social >> 2c   2d   3b   3c   4a   4g   5a   5c   5d   5e   5f   6a   7b   7c   8a   8c   11   12c   12d   13e   13f					
18:30						General assembly DGGV
20:00		Public Evening Lecture: Colin Devey (GEOMAR, Kiel) <i>Und dann verschwand ein Ozean' - wie die geologische</i>				

## Wednesday, 25 September 2019

08:00	Registration					
08:30			4a	7b)-1	3b	5f
10:30	Coffee break   exhibition					
11:00		Plenary Lecture: Prof. Jim Head (Brown University, USA) <i>50 Years Since Apollo: The Earth in the Context of</i>				
11:45		DGGV & DMG Award Ceremony				
12:00	Lunch break   exhibition					
13:00			2c	7b)-2	6a	
15:00		Closing Ceremony				



Castle S8	Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	Castle S 055	
						08:00
8b	5h)-1	9a)-1	12b	13a	13d)-1	09:00
						10:30
6c	5h)-2	9a)-2	10b	13e	13d)-2	11:15
					DGGV council meeting	13:00
						14:30
<i>from the Indo-Asia mega-orogeny</i>   Lecture hall H1						15:00
						15:45
13c   13d						16:30
						17:45
		Science Slam				19:30
						08:00
Townhall	5g	1)-1	10a)-1	6b)-1		08:30
						10:00
12a)-1		1)-2	10a)-2	6b)-2		10:45
	AK DMG „Schule und Hochschule“ Castle   S 062				AK Sedimentologie Castle   S 055	12:30
<i>crust: deep is different</i>   Lecture hall H1						14:00
						14:30
						15:15
12a)-2	5b)-1	1)-3	5d			15:45
						17:30
						18:30
<i>Geschichte der Erde unsere Zivilisation ermöglicht</i>   Lecture hall H1 (in German only!)						20:00
						08:00
12c	5b)-2	11a	8c)-1	13f)-1		08:30
						10:30
<i>Solar System Exploration</i>   Lecture hall H1						11:00
						11:30
	DVGeo board meeting Castle   S 062					12:00
12d	5c	8a	8c)-2	13f)-2		13:00
						15:00

# Detailed programme Monday, 23 September 2019

	H2	H3	H4	Castle Aula	Castle S8
08:00	Registration				
		<p><b>7a)-1: Quaternary Geochronology</b>  <i>Chairs: Ralf Hetzel &amp; Tibor János Dunai</i></p>	<p><b>5a)-1: Volatiles in the Earth's Mantle – Elemental Budgets &amp; Cycles</b>  <i>Chairs: Tobias Grützner, Yannick Bussweiler &amp; Carla Tiraboschi</i></p>		<p><b>8b): Deep subsurface groundwater systems</b>  <i>Chair: Sebastian Fischer</i></p>
09:00		<p><i>Keynote: Georgina E King, Shigeru Sueoka, Sumiko Tsukamoto, Frederic Herman, Floriane Ahadi, Cecile Gautheron, Guillaume Delpech, Takahiro Tagami  </i>  <b>OSL and ESR thermochronometry of the Japanese Alps</b></p>			<p><i>Keynote: Rafael Schäffer, Ingo Sass  </i>  <b>The thermal provinces of Hesse, Germany</b></p>
09:15					
09:30		<p><i>Tony Reimann  </i>  <b>Reconstructing production, mixing and erosion of soils using single-grain OSL methods</b></p>			<p><i>Cindy Kunkel, Thorsten Agemar  </i>  <b>Reservoir rocks for geothermal applications in the North German Basin: Hydraulic characterization of Dogger sediments</b></p>
09:45		<p><i>Reza Sohbatj, Andrew Murray, Larry Smith, Martin Stange, Mayank Jain  </i>  <b>Mass movements: can they be dated using luminescence from rock surfaces?</b></p>	<p><i>Stamatis Flemetakis, Stephan Klemme, Arno Rohrbach, Andreas Stracke, Jasper Berndt  </i>  <b>Identifying the mineralogy of a metasomatised mantle source by halogen partitioning experiments: A new approach</b></p>		<p><i>Maximilian Frick, Magdalena Scheck-Wenderoth, Mauro Cacace, Michael Schneider  </i>  <b>3D numerical modeling of cross-boundary flow in the subsurface of Berlin (Germany)</b></p>
10:00		<p><i>Sumiko Tsukamoto, Benny Guralnik, Kiyokazu Oohashi, Makoto Otsubo  </i>  <b>Direct dating of faulting in the absence of overlying sediments</b></p>	<p><i>Nikita Mironov, M. Portnyagin, D. Tobelko, S. Smirnov, S. Krashennikov, A. Gurenko  </i>  <b>Initial CO<sub>2</sub> content in parental arc magmas estimated using micro-Raman spectroscopy and mass-balance calculations: a case study of Karymsky volcano (Kamchatka, Russia)</b></p>		
10:15		<p><i>Friedhelm von Blanckenburg, Hella Wittmann, Nadine Dannhaus  </i>  <b>The cosmogenic <sup>10</sup>Be(meteoric)/<sup>9</sup>Be ratio as a tracer of weathering and erosion in lithologies with and without quartz</b></p>	<p><i>Simone Tumiatì  </i>  <b>Dissolution of graphite in high-pressure aqueous fluids: the roles of crystallinity and of coexisting silicates and carbonates</b></p>		





Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	Castle S 055	
08:00					
<b>5h)-1: Processes and timescales in the evolution of transcrustal magma systems: from field and geochemical observations, through experiments to modelling</b> <i>Chairs: Axel Karl Schmitt &amp; Francois Holtz</i>	<b>9a)-1: Natural Hazards like earthquakes, landslides, floods and sea-level changes</b> <i>Chairs: Silke Mechernich, Heinrich Bahlburg &amp; Anna Pint</i>	<b>12b): Mineral deposits of societal relevance for Europe</b> <i>Chairs: Antje Wittenberg &amp; Henrike Sievers</i>	<b>13a): 3D Geological Modelling and subsurface potentials</b> <i>Chairs: Jennifer Ziesch, Stephan Steuer &amp; Rouwen Lehné</i>	<b>13d)-1: Communicating (geo-)science</b> <i>Chairs: Rebecca Bast, Vera Laurenz-Heuser &amp; Julia Roszjar</i>	
<u>Gerhard Wörner</u> , Elena Belousova, Jelte Keeman, Simon Turner, Axel Schmitt, John Hora   <b>Ignimbrites and silicic magmatism in the Central Andes: Sources, timing and processes of magma generation</b>	<i>Hermann-Credner-Award 2019: Christoph Grützner  </i> <b>Paleoseismology in continental interiors and seismic hazard assessments - what have we learned?</b>	<i>Keynote: Corina Hebestreit  </i> <b>Decarbonisation, circular economy and de-industrialisation – a Vision for the European minerals industry?</b>	<u>Frithjof Bense</u> , Heidrun Stück, Stephan Steuer, Fabian Jähne-Klingberg   <b>An overview of current geological modelling activities in the German North Sea by the BGR</b>		09:00
Arne Spang, Tobias Baumann, Boris Kaus   <b>Towards 3D geodynamic modelling of the Altiplano-Puna magma system</b>			<u>Alexander Malz</u> , Lars Schimpf   <b>3D geological modelling in Saxony-Anhalt - documentation, methods, results and applications towards modern subsurface information systems</b>	09:15	
<u>Nicolas Riel</u> , Boris Kaus, Lisa Rummel   <b>Deep crust hot zone: the control of depth on magmatic differentiation</b>	<i>Keynote: Maarten Van Daele, Jasper Moernaut, Marc De Batist  </i> <b>Recent advances in qualitative and quantitative lacustrine paleoseismology</b>	<u>Henrike Sievers</u> , Antje Wittenberg, Daniel de Oliveira   <b>Historical mine sites revisited</b>	<u>Marcus Helms</u> , Cornelia Wangenheim, Manuela C. Stehle, Sabine Sattler, Jennifer Ziesch   <b>Producing an improved geological 3D model of Lower Saxony (TUNB) from the 3D tectonic atlas (GTA3D)</b>	<i>Serge-von-Bubnoff Medal: Sylke Hlawatsch  </i> <b>More Geosciences in German Schools: Opportunities for Geoscientists to Support the Training and Selection of Students for the Annual Competition „International Earth Science Olympiad (IESO)“</b>	09:30
<u>Lisa Rummel</u> , Boris J.P. Kaus, Tobias S. Baumann, Richard W. White, Nicolas Riel   <b>Evolution of transcrustal magmatic systems investigated by petrological-geodynamical models</b>			<u>Mark Stephen Saxon</u> , <u>Robert Pell</u>   <b>The Path to European Rare Earth Element Security</b>	<u>Laura Dzieran</u> , Fabian Hese, Katrin Lademann, Thomas Liebsch-Doerschner   <b>Towards a velocity model of the deep subsurface of Schleswig-Holstein for geological 3D modeling – A part of the joint project TUNB</b>	09:45
<u>Herbert Wallner</u> , Harro Schmelting   <b>First steps in linking melt-matrix-two-phase flow with fast melt transport via dykes in a continental crust scenario</b>	<u>Alf Grube</u>   <b>Palaeoseismic structures in Quaternary sediments of Hamburg (NW Germany)</b>	<u>Klemens Slunitschek</u> , Jochen Kolb, Elisabeth Eiche   <b>Extraction of lithium from geothermal brines of the Upper Rhine Graben using manganese oxide adsorbents – A first approach</b>	<u>Denis Anikiev</u> , Maria Laura Gomez Dacal, Adrian Lechel, Judith Bott, <u>Magdalena Scheck-Wenderoth</u>   <b>3D-Deutschland: a three-dimensional lithospheric-scale density and thermal model of Germany</b>	<u>Maria Mrosko</u> , Bastian Joachim-Mrosko, Lennart A. Fischer, Gilla Simon, Lutz Hecht, Malte Junge, Magdalena Blum-Oeste, Roland Stalder   <b>Der Mineralogische Lehrkoffer im MINT-Unterricht – eine Brücke von Natur zu Naturwissenschaft und Technik</b>	10:00
<u>Urs Schaltegger</u> , Blair Schoene, Alexey Ulianov, Richard Spikings, Othmar Müntener   <b>Evolution of magmatic systems at different temporal and spatial scales – what did we learn from zircon U/Pb dating?</b>	<u>Meike Bagge</u> , Andrea Hampel, Ryan D. Gold   <b>Modeling the Holocene slip history of the Wasatch fault (Utah): Coseismic and postseismic Coulomb stress changes and implications for paleoseismicity and seismic hazard</b>	<u>Manuel Keith</u> , Daniel J. Smith, David A. Holwell, Gawen R. T. Jenkin, Joseph Becker, Jason Rampe   <b>Tellurium a strategic metal for green energy technologies: Insights into ore-forming processes</b>	<u>Lena Merz</u> , Ayten Huseynova, Christoph Hilgers   <b>A multimodal and multitemporal assessment of mud volcanism in Azerbaijan by drone and remote sensing</b>	<u>Vera Laurenz-Heuser</u>   <b>Geology in a nutshell – A rock-cycle game created during a geology course for elementary school students</b>	10:15

# Detailed programme Monday, 23 September 2019

	H2	H3	H4	Castle Aula	Castle S8
10:30	COFFEE BREAK   POSTER SESSION   EXHIBITION				
	<p><b>4d): Latest Achievements in Scientific Ocean and Continental Drilling</b> Chairs: Katja Lindhorst, Lisa Egger &amp; Ulrich Harms</p>	<p><b>7a)-2: Quaternary Geochronology</b> Chairs: Ralf Hetzel &amp; Tibor János Dunai</p>	<p><b>5a)-2: Volatiles in the Earth's Mantle – Elemental Budgets &amp; Cycles</b> Chairs: Tobias Grützner, Yannick Bussweiler &amp; Carla Tiraboschi</p>	<p><b>2e): Recent advances in lunar science</b> Chair: Harald Hiesinger</p>	<p><b>6c): Fluid-rock interaction: from mechanisms to rates – from atoms to plates</b> Chairs: Oliver Plümper, Helen E King &amp; Esther Martin Schwarzenbach</p>
11:15	<p>Jürgen Koepke, Dieter Garbe-Schönberg, Dominik Mock, Samuel Müller, and The Oman Drilling Project Science Team   <b>The ICDP Oman Drilling Project: a status report</b></p>	<p>Monika Korte, Sanja Panovska, Maxwell C. Brown, Andreas Nilsson   <b>Geomagnetic field reconstructions as late Quaternary dating tools</b></p>	<p><i>Keynote:</i> Celia Dalou, Evelyn Füre, Cécile Deligny, Laurette Piani, Marie-Camille Caumon, Mickael Laumonier, Julien Boulliung, Mattias Edén   <b>Redox control on nitrogen isotope fractionation during planetary core formation</b></p>	<p>Harald Hiesinger   <b>Dating Lunar Surface Features With Crater Size-Frequency Distribution Measurements: A Review</b></p>	<p>Elisabete Trindade Pedrosa, Ricarda D. Rohlfis, Cornelius Fischer, Andreas Lutge   <b>Dissolution rate variability of the four different etch pit steps of the 104 calcite crystal face</b></p>
11:30	<p>Catherine Rose, Anthony Prave, Kristin Bergmann, Simone A. Kasemann, Francis Macdonald, Karl-Heinz Hoffmann, Ricardo Trindade, Maoyan Zhu   <b>Geological Research through Integrated Neoproterozoic Drilling (GRIND): The Ediacaran-Cambrian Transition</b></p>	<p><i>Keynote:</i> Vincent Godard, Franck Thomas, Lucilla Benedetti, Olivier Bellier, Vincent Ollivier, Esmaeil Shabaniyan, Jules Fleury, AS-TER Team   <b>Dynamics and evolution of carbonate landscapes inferred from cosmogenic nuclides</b></p>		<p>Wajihah Iqbal, Harald Hiesinger, Carolyn van der Bogert   <b>Ages of the geological events around the Apollo 17 landing site</b></p>	<p>Ricarda D. Rohlfis, Inna Kurganskaya, Cornelius Fischer, Andreas Lutge   <b>Meso-scale Calcite Dissolution Modelling – Parametrization and Data Analysis</b></p>
11:45	<p>Virginia Gail Toy, Hamed Amiri, Francesco Cappuccio, Mai-Linh Doan, Natalia Xie   <b>Permeability estimation in sedimentary sequences: a comparison between inferences from wireline resistivity logs and computations from porosity distributions in CT scans of drillcore</b></p>		<p>Zairong Liu, Arno Rohrbach, Stephan Klemme, Stephen Foley, Jasper Berndt   <b>The role of C-O-H fluids on partial melting of eclogite and lherzolite under reducing conditions</b></p>	<p>Carolyn H. van der Bogert, Harald J. Hiesinger, Wajihah Iqbal, Jaclyn D. Clark, Mark S. Robinson, Bradley L. Jolliff, Timothy M. Hahn Jr., Thomas R. Watters, Maria E. Banks, Harrison H. Schmitt   <b>Complex Copernican Geology at the Apollo 17 Landing Site</b></p>	<p>Anselm Loges, Thomas Wagner   <b>Experimental Constraints on Hydrothermal Indium Transport</b></p>
12:00	<p>Michael Pitz, Robert Buserert   <b>CO<sub>2</sub>-induced natural deformation structures in well HJB-1 (Cheb Basin, Czech Republic)</b></p>	<p>Spiros Olivotos, S. Niedermann, V. Mouslopoulou, S. Merchel, F. Cotterill, T. Flugel, A. Gärtner, G. Rugel, A. Scharf, B. Bookhagen, M.-J. Nadeau, R. Braucher   <b>Reconstruction of the Landscape Evolution of South Central Africa: A Case Study on Waterfalls of Northern Zambia and South-Eastern D.R. Congo</b></p>	<p>Monika Koch-Müller, Richard Wirth, Oona Appelt, Bernd Wunder   <b>Amorphous precursor phase observed at mantle conditions during hydration of clinoenstatite to 3.65 Å phase, MgSi(OH)<sub>6</sub></b></p>	<p>Claudia M. Pöhler, Harald Hiesinger, Carolyn H. van der Bogert   <b>The light plains of the lunar northern hemisphere</b></p>	<p>Ramon Reifenröther, Carsten Münker, Birgit Scheibner   <b>Extreme W enrichment in highly serpentinised abyssal peridotites from IODP Leg 209</b></p>
12:15	<p>Johann P. Klages, Ulrich Salzmann, Torsten Bickert, Claus-Dieter Hillenbrand, Karsten Gohl, Gerhard Kuhn   <b>Temperate rain forests at 77°S palaeolatitude during the Late Cretaceous</b></p>	<p>Benedikt Ritter, Steven A. Binnie, Finlay M. Stuart, Joel Mohren, Tibor Dunai   <b>Can cosmogenic nuclide exposure dating help to solve the existing controversy about the evolution of hyperaridity in the Atacama Desert?</b></p>	<p>Maxim Portnyagin, Nikita Mironov, Roman Botcharnikov, Andrey Gurenko, Renat Almeev, Cornelia Luft, Francois Holtz   <b>Experimental evidence and implications of coupled silica and water loss from melt inclusions in olivine</b></p>	<p>James Head, Lionel Wilson   <b>Lunar Basaltic Volcanic Eruptions: New Discoveries and Insights from Modeling and Observations</b></p>	<p>Dina Simona Schultze, Richard Wirth, Bernd Wunder, Gerhard Franz   <b>The influence of a nanophase on mineral equilibration in the system Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-H<sub>2</sub>O</b></p>





Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	Castle S 055	
10:30					
<p><b>5h)-2: Processes and timescales in the evolution of transcrustal magma systems: from field and geochemical observations, through experiments to modelling</b> Chairs: Axel Karl Schmitt &amp; Francois Holtz</p>	<p><b>9a)-2: Natural Hazards like earthquakes, landslides, floods and sea-level changes</b> Chairs: Silke Mechernich, Heinrich Bahlburg &amp; Anna Pint</p>	<p><b>10b): Detailed insights into geodynamic processes and geotechnical applications through neutron and synchrotron X-ray diffraction</b> Chairs: Christian Scheffzük &amp; Nikolaus Froitzheim</p>	<p><b>13e): Building a Global Network of Geochemical Data</b> Chairs: Kirsten Elger &amp; Friedhelm von Blanckenburg</p>	<p><b>13d)-2: Communicating (geo-)science</b> Chairs: Rebecca Bast, Vera Laurenz-Heuser &amp; Julia Roszjar</p>	
<p>Keynote: <u>Maren Kahl</u>, Enikö Bali, Guðmundur H. Guðfinnsson, David A. Neave   <b>Quantitative magma plumbing studies: Accessing the dynamic evolution of transcrustal magmatic systems in space and time</b></p>	<p>Keynote: Max Engel   <b>The geological legacy of typhoons in the Philippines</b></p>	<p>Keynote: <u>Michael Stipp</u>, Rebecca Kühn, Ruth Keppler, Rüdiger Kilian   <b>Progress in texture analysis of rocks and sediments using synchrotron, neutron and electron beams</b></p>	<p><u>Gerhard Wörner</u>, Bärbel Sarbas, Jens Nieschulze, Albrecht Hofmann   <b>Big Data in Geochemistry? Examples, needs and outlook</b></p>	<p>Rebecca Bast   <b>Teaching Science Communication to Geoscience students</b></p>	11:15
			<p><u>Dominik C Hezel</u>, Premkumar Elangovan, Andreas Morlok, Jörn Koblitz   <b>An online research platform for cosmochemistry</b></p>	<p><u>Jürgen Reinhardt</u>, Michael Raith, Tanja Reinhardt, Hans-Peter Schertl   <b>Minerals in Thin Section ('MINTS'): An open-access, interactive website for transmitted-light petrographic microscopy</b></p>	11:30
<p><u>Smruti Sourav Rout</u>, Gerhard Wörner   <b>Constraining pre-eruptive history by diffusion chronometry: Laacher See (Germany) and Taapaca volcano (Chile)</b></p>	<p><u>Dominik Schmitt</u>, Eberhard Gischler, Flavio Anselmetti, Hendrik Vogel, Jörn Peckmann, Daniel Birgel   <b>The varved sediment package of the Great Blue Hole, Lighthouse Reef, Belize (Central America), a high-resolution archive of Atlantic hurricane activity throughout the entire Common Era</b></p>	<p><u>Matthias Schwotzer</u>, Andreas Bogner, Jonas Kaltenbach, Christian Scheffzük   <b>Non-invasive investigation of concrete deterioration in aggressive aqueous environments by means of neutron diffraction</b></p>	<p>Schlegel Jutta, Ulbricht Damian, Elger Kirsten, Friedhelm von Blanckenburg   <b>Medusa: A Metadata System for Samples analysed in the Geo- and Environmental Sciences</b></p>	<p><u>Martin Monschau</u>, Edouard Grigowski, PD Dr. Gösta Hoffmann   <b>OutcropWizard - A modern access to the classic themes of geoscience</b></p>	11:45
<p><u>Caren Sundermeyer</u>, Andrea Di Muro, Boris Gordeychik, Gerhard Wörner   <b>Timescales of magmatic processes during the eruptive cycle 2014-2015 at Piton de la Fournaise, La Réunion, obtained by Mg-Fe diffusion modelling in olivine</b></p>	<p>Robert Weiss   <b>Tsunami hazard under rising sea levels and other climate change impacts</b></p>	<p><u>Birgit I.R. Müller</u>, Christian Scheffzük, Frank R. Schilling   <b>In situ – strain investigations for reservoir conditions using neutron time-of-flight diffraction</b></p>	<p><u>Kirsten Elger</u>, Jose-Luis Fernandez-Turiel, Richard Wessels, Damian Ulbricht, - EPOS MSL Team   <b>EPOS Multi-scale laboratories: a network of European laboratories</b></p>	<p>Markus Konkol   <b>Why PDFs are not suitable for communicating (geo)scientific results</b></p>	12:00
<p><u>Yves Feisel</u>, Jonathan M. Castro, Donald B. Dingwell   <b>Halogen diffusion in dry rhyodacitic melt</b></p>	<p>Thomas Walter   <b>Pre-cursors and processes culminating in the Anak Krakatau December 2018 sector collapse and tsunami</b></p>	<p><u>Markus Baum</u>, Diane Rebiscoul, Samuel Tardif, Francois Rieutord, Michael Haist   <b>Transport of electrolyte solutions and interfacial layer in silica nanoconfinement – case of plane and parallel surfaces (nanochannels)</b></p>	<p><u>Baerbel Sarbas</u>, Albrecht Hofmann   <b>GEOROC - a Global Geochemical Database</b></p>	<p><u>Julia Roszjar</u>, Ludovic Ferrière, Christian Koeberl   <b>Asteroid Day: Communicating the danger from impacts on Earth and the relevance of meteorites and their parent bodies</b></p>	12:15

# Detailed programme Monday, 23 September 2019

	H2	H3	H4	Castle Aula	Castle S8
	<b>4d): Latest Achievements in Scientific Ocean and Continental Drilling</b> <i>Chairs: Katja Lindhorst, Lisa Egger &amp; Ulrich Harms</i>	<b>7a)-2: Quaternary Geochronology</b> <i>Chairs: Ralf Hetzel &amp; Tibor János Dunai</i>	<b>5a)-1: Volatiles in the Earth's Mantle – Elemental Budgets &amp; Cycles</b> <i>Chairs: Tobias Grützner, Yannick Bussweiler &amp; Carla Tiraboschi</i>	<b>2e): Recent advances in lunar science</b> <i>Chair: Harald Hiesinger</i>	<b>6c): Fluid-rock interaction: from mechanisms to rates – from atoms to plates</b> <i>Chairs: Oliver Plümper, Helen E King &amp; Esther Martin Schwarzenbach</i>
12:30	Steffen Kutterolf, Mark Brenner, Armin Freundt, Jens Kallmeyer, Sebastian Krastel, Sergei Katsev, Axel Meyer, Liseth Pérez, Juanita Rausch, Armando Saballos, Antje Schwalb, Wilfried Strauch   <b>Paleoclimate, Paleoenvironment, and Paleoeology of Neogene Central America: Bridging Continents and Oceans (NICA-BRIDGE)</b>	Joel Mohren, Steven A. Binnie, Benedikt Ritter, Tibor J. Dunai   <b>Using TCN to decipher a steep erosional gradient in the hyperarid core of northern Chile over multiple time scales</b>	Bastian Joachim-Mrosko, Jürgen Konzett, Thomas Ludwig, Roland Stalder   <b>Al, Fe and H incorporation in natural rutile</b>	Christian J. Renggli, Stephan Klemme   <b>Experimental simulation of Apollo 16 “rusty rock” alteration by a fumarolic metal bearing gas</b>	<i>Keynote: Johannes Christiaan Vrijmoed, Yury Podladchikov</i>   <b>Coupling 2D numerical modelling of microscale dehydration to fully quantitative automated mineralogy mapping</b> <b>Coupling 2D numerical modelling of microscale dehydration to fully quantitative automated mineralogy mapping</b>
12:45	Arne Ulfers, Katja Hesse, Christian Zeeden, Thomas Wonik   <b>Paleoenvironmental indications and cyclostratigraphic studies of sediments from tropical Lake Towuti obtained from downhole logging</b>		Yongsheng Huang, Haihao Guo, Takayuki Nakatani, Michihiko Nakamura, Hans Keppler   <b>Electrical conductivity of forsterite aggregates containing H<sub>2</sub>O-NaCl fluids at 800 °C and 1 GPa: implications for the high electrical conductivity anomalies in subduction zones</b>	Dennis M. Vanderliek, Monika A. Kusiak, Richard Wirth, Harry Becker, Alexander Rocholl   <b>Origin of Granular Zircon in Lunar Impactites</b>	
13:00	LUNCH BREAK   POSTER SESSION   EXHIBITION				
14:30	Opening Ceremony – Welcome address and DGGV Award Ceremony   Lecture Hall 1				
15:00	<b>Plenary Lecture: Marin K. Clark (University of Michigan, USA) <i>Building Earth's highest topography: lessons learned from the Indo-Asia</i></b>				
15:45	<b>DGGV Award Ceremony</b>   Lecture Hall 1				
16:30	<b>16:30-18:00</b>   Tent <b>Poster Social &gt;&gt; Sessions 1   2a   2b   2e   4d   4e   5b   5g   5h   6b   6c   7a   7d   8b   9   10a   10b   12a   12b   13a   13c   13d</b>				
17:45				17:45-19:30 General Assembly DMG	
19:30	<b>Science Slam</b>   Schlossplatz 7 Hof: SP 7				



Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	Castle S 055
<p><b>5h)-2: Processes and timescales in the evolution of transcrustal magma systems: from field and geochemical observations, through experiments to modelling</b> Chairs: Axel Karl Schmitt &amp; Francois Holtz</p>	<p><b>9a)-2: Natural Hazards like earthquakes, landslides, floods and sea-level changes</b> Location: <b>Schlossplatz 7</b> Hof: Chairs: Silke Mecher-nich, Heinrich Bahlburg &amp; Anna Pint</p>	<p><b>10b): Detailed insights into geodynamic processes and geotechnical applications through neutron and synchrotron X-ray diffraction</b> Chairs: Christian Scheffzük &amp; Nikolaus Froitzheim</p>	<p><b>13e): Building a Global Network of Geochemical Data</b> Chairs: Kirsten Elger &amp; Friedhelm von Blanckenburg</p>	<p><b>13d)-2: Communicating (geo-)science</b> Chairs: Rebecca Bast, Vera Laurenz-Heuser &amp; Julia Roszjar</p>
<p>Jo-Anne Wartho, Lisa Samrock, Thor Hansteen   <b>Antecrysts – angels or devils in <sup>40</sup>Ar/<sup>39</sup>Ar geochronology? Examples from Cape Verde seamounts</b></p>	<p>Michael Fuchs, Stefan Glaser   <b>Project “Mass Movements in Germany (MBiD)”</b>: A methodical approach for surveying areas prone to shallow translational landslides at regional scale</p>	<p>Peter Hallas, Uwe Kroner   <b>Quartz texture development in exhumation channel related shear zones of the Erzgebirge: The interplay of Grain Boundary Migration and Sub Grain Rotation</b></p>	<p>Keynote: Kerstin Annette Lehnert, Annika Johansson   <b>Building on the Success of Geochemical Databases: Toward a Global Research Infrastructure of Geochemical Data</b></p>	12:30
<p>Alejandro Cisneros, de León, Axel K. Schmitt, Sonja Storm, Bodo Weber, Julie C. Schindlbeck-Belo, Robert B. Trumbull, Francisco Juárez   <b>Millennial to decadal magma evolution in an arc volcano from zircon and tephra of the 2016 Santiaguito eruption (Guatemala)</b></p>	<p>Siamak Baharvand, Jafar Rahnamarad, Salman Soori, Nader Saadatkah   <b>Land-slide Hazard Assessment at Sorkhab Basin Using Fuzzy Logic and GIS</b></p>	<p>Michael Jared Schmidtke, Ruth Keppler, Michael Stipp, Nikolaus Froitzheim   <b>Determining elastic properties of rocks for a representative cross section through the Western Alps</b></p>		12:45
			DGGV Council meeting	13:00
				14:30
<i>mega-orogeny</i>   Lecture Hall 1				15:00
				15:45
				16:30
				17:45
				19:30

# Detailed programme Tuesday, 24 September 2019

	H2	H3	H4	Castle Aula
08:00	Registration			
	<p><b>4g): Advances in geochronology from modern to deep time</b> Chairs: Jacek Raddatz &amp; Ulf Linnemann</p>	<p><b>7d)-1: The stable isotope toolbox in sedimentary systems: From water-rock-biosphere interactions to (palaeo-) environmental reconstructions</b> Chairs: Dorothee Hippler &amp; Michael E. Boettcher</p>	<p><b>13c)-1: Tectonic Systems (TSK open session)</b> Chairs: Nikolaus Froitzheim &amp; Michael Stipp</p>	<p><b>2a): Petrology, volcanism and surface processes on terrestrial bodies</b> Chair: Harald Hiesinger</p>
08:30	<p>Keynote: <u>Urs Schaltegger</u>   <b>High-resolution calibration of Earth system processes with precise and accurate U-Pb geochronology</b></p>		<p>Keynote: <u>Janos Urai</u>, Peter A. Kukla   <b>Rheology of evaporites at slow deformation rates: integrated understanding of Salt tectonics, Salt caverns and Nuclear waste repositories</b></p>	<p>Keynote: <u>Bernard Charlier</u>, Mikael Beuthe, Olivier Namur, Attilio Rivoldini, Tim Van Hoolst   <b>Building the volcanic crust of Mercury</b></p>
08:45				
09:00	<p><u>Volker Liebetrau</u>, S. Krause, A. Eisenhauer, T. J. Goepfert, R. Rashid, J. Raddatz, H. Jurikova, N. Glock, S. Büsse, S. Gorb   <b>Challenges for the accuracy of U-Th systematics in marine carbonate archives of extreme environments: identifying and overcoming limitations of early diagenesis</b></p>	<p><u>Dario Fussmann</u>, Avril von Hoyningen-Huene, Dominik Schneider, Andreas Reimer, Rolf Daniel, Gernot Arp   <b>Early microbial impact on carbonate diagenesis in lagoon sediments on Aldabra, Western Indian Ocean</b></p>	<p><u>Tilo Kneucker</u>, Martin Blumenberg, Harald Strauss, Gernold Zulauf   <b>Microfabrics and composition of brittle faults and veins in Lower Cretaceous claystones (Lower Saxony Basin, Germany): Constraints on the barrier behaviour of clay-rich rock formations</b></p>	<p><u>Andreas Markus Morlok</u>, B. Charlier, C. Renggli, S. Klemme, O. Namur, C. Carli, M. Sohn, I. Weber, A. N. Stojic, M. Reitze, H. Hiesinger, J. Helbert   <b>Infrared Spectroscopy of Synthetic Planetary Analogs for Mercury for the BepiColombo Mission</b></p>
09:15	<p><u>Ellen Kooijman</u>, Melanie Schmitt, Matthijs Arjen Smit   <b>Advances in rutile petrochronology</b></p>	<p><u>Sonja Geilert</u>, Patricia Grasse, Kristin Doering, Klaus Wallmann, Claudia Ehlert, Martin Frank, Florian Scholz, Mark Schmidt, Christian Hensen   <b>Impact of ambient conditions on the Si isotope fractionation in marine pore fluids during early diagenesis</b></p>	<p><u>Ottomar Krentz</u>, Bedrich Mlcoch, Klaus Peter Stanek   <b>Two regional tectonic structures - The intersection of Elbe Zone and Eger Rift</b></p>	<p><u>Aleksandra N. Stojic</u>, Andreas Morlok, Martin Sohn, Harald Hiesinger, Tomas Kohout, Hagen Aurich, Iris Weber, Joern Helbert   <b>A shock recovery experiment: Tracing Spectral Fingerprints of Impact Melt, npFe and Element Migration in Shocked Porous Materials</b></p>
09:30	<p><u>Aratz Beranoaguirre</u>, Axel Gerdes, Richard Albert, Leo J. Millonig   <b>Towards in-situ U-Pb dating of sulphates</b></p>	<p><i>Gustav-Steinmann Medal</i>: Page Chamberlain   <b>Alexander von Humboldt, Paleoaltimetry and Geobiodiversity</b></p>	<p><u>Christoph von Hagke</u>, Michael Kettermann, Christopher Weismüller, Janos L. Urai, Klaus Reicherter   <b>The near surface structure of rift systems</b></p>	<p><u>Thomas Heyer</u>, Misha Kreslavsky, Harald Hiesinger, Dennis Reiss, Hannes Bernhardt, Ralf Jaumann   <b>Present-day Activity of Slope Streaks on Mars</b></p>
09:45	<p><u>Richard Albert</u>, Leo J. Millonig, Aratz Beranoaguirre, Axel Gerdes   <b>In-situ U-Pb garnet dating. Strengths and weaknesses</b></p>			<p><u>Gernot Arp</u>, István Dunkl, Gerald Hartmann, Dietmar Jung, Volker Karius, Réka Lukács, Andreas Reimer, Michael Wolff, Jim Head   <b>A volcanic ash layer in the Miocene Nördlinger Ries impact structure (Germany): Indication of crater fill geometry and long-term crater floor sagging</b></p>





Castle S8	Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	
					08:00
	<p><b>5g): Reconstructing the evolution (P-T-t-X) of magmatic processes</b> Chairs: Lennart A. Fischer &amp; Bastian Joachim-Mrosko</p>	<p><b>1)-1: Understanding Early Earth processes using novel geochemical approaches and methods</b> Chairs: Erik E. Scherer, Axel Gerdes &amp; Armin Zeh</p>	<p><b>10a)-1: Minerals in the depths: an experimental approach</b> Chair: Anna Pakhomova</p>	<p><b>6b)-1: Reaction and deformation</b> Chairs: Claudia A. Trepmann &amp; Sumit Chakraborty</p>	
<p><b>Townhall: GeochemDat aBas</b> Chairs : Kirsten Elger &amp; Kerstin Lehnert</p>	<p>Dominik Mock, Benoit Ildefonse, Dieter Garbe-Schönberg, Samuel Müller, David Neave, Jürgen Koepke   <b>On the formation of oceanic layered gabbros: drillcore GT1 of the ICDP Oman Drilling Project</b></p>			<p>Keynote: Holger Stunitz, Nicolas Mansarde, Sina Marti, Hugues Raimbourg, Jacques Precigout, Renee Heilbronner, Jiri Konopasek, Oliver Pluemper, Ane Finstad, Kai Neufeld, James McKenzie   <b>Deformation facilitated by transformative processes: mineral reactions and diffusion creep in the mafic system</b></p>	08:30
	<p>Armin Zeh, Dominik Gudelius, Allan Wilson   <b>Tracing heterogeneous intercumulus processes by rutile: examples from the Bushveld Complex</b></p>				08:45
	<p>Paul Ramdohr Award (2018) Anja Allabar, Marcus Nowak   <b>Soufflé collapse: Vesicle shrinkage in hydrous silicate melts during quench</b></p>			<p>Kilian Pollok, Falko Langenhorst   <b>Growth related defect microstructures in replacement reactions</b></p>	09:00
	<p>Christopher Gieh], Lennart Fischer, Mario Kleindienst   <b>Advances in high-temperature rheometry methods: a silicate melt case study</b></p>	<p>Keynote: Matthijs Smit   <b>Archean lithospheric change and the start of modern-style plate tectonics</b></p>		<p>Kristina G. Dunkel, Luiz. F. G. Morales, Bjørn Jamtveit   <b>Wall-rock damage and alteration in orthogneisses from Lofoten as revealed by CL imaging, EBSD, and TEM analyses</b></p>	09:15
	<p>Keynote: Alexander Sehlke   <b>Rheological and Thermal Evolution of Magmatic Systems: Insights into the Volcanic Past on Earth and other Planets and Moons in our Solar System</b></p>		<p>Alan B. Woodland, Vadim K. Bulatov, Andrei V. Girmis, Gerhard P. Brey, Heidi E. Höfer   <b>Ferropericase and diamond crystallization at upper mantle conditions: implications for the origin of ferropericase inclusions in diamond</b></p>	<p>Keynote (Goldschmidt Prize (2018): Oliver Plümpfer, Floris Teuling, David Wallis, Thomas Müller   <b>Quantifying non-hydrostatic, reaction-induced stresses during metamorphic hydration reactions</b></p>	09:30
		<p>Alexander Wellhäuser, Tracy Rushmer, John Adam, Gerhard Wörner   <b>A new Titanium excess phase saturation thermometer for silicate melts with implications for conditions of Archean crust formation</b></p>	<p>Matthias Krug, Estelle Ledoux, Jeffrey Phillip Gay, Julien Chantel, Sergio Speziale, Sébastien Merkel, Carmen Sanchez-Valle   <b>Microstructures across phase transitions in SiO<sub>2</sub> and the origin of seismic scatterers in the mantle</b></p>		09.45

# Detailed programme Tuesday, 24 September 2019

	H2	H3	H4	Castle Aula
10:00	COFFEE BREAK   POSTER SESSION   EXHIBITION			
	<p><b>4e/f) + 4g): Continents, oceans and global change</b>  <i>Chairs: Jacek Raddatz, Nikolaus Gussone &amp; Ulf Linnemann</i></p>	<p><b>7d)-2: The stable isotope toolbox in sedimentary systems: From water-rock-biosphere interactions to (palaeo-) environmental reconstructions</b>  <i>Chairs: Dorothee Hippler &amp; Michael E. Boettcher</i></p>	<p><b>13c)-2: Tectonic Systems (TSK open session)</b>  <i>Chairs: Kamil Ustaszewski &amp; Armin Diefelder</i></p>	<p><b>2a) + 2b): Petrology, volcanism and surface processes on terrestrial bodies</b>  <i>Chairs: Christian J. Renggli, Andreas Markus Morlok, Christian Vollmer &amp; Dennis Harries</i></p>
10:45	<p>Ulf Linnemann, Maria Ovtcharova, Urs Schaltegger, Andreas Gärtner, Michael Hautmann, Gerd Geyer, Patricia Vickers-Rich, Tom Rich, Birgit Plessen, Mandy Hofmann, Johannes Zieger, Rita Krause, Les Kriesfeld, Jeff Smith   <b>New high-resolution U-Pb zircon age data from the Precambrian-Cambrian boundary (South Namibia)</b></p>	<p>Ralf Andreas Oeser, Friedhelm von Blanckenburg   <b>Radiogenic and stable Strontium isotopic fingerprints of ecosystem nutrition</b></p>	<p>Ali Abdelkhalik, Jonas Kley   <b>Challenges to unravel an abandoned Oligocene rift segment along the River Nile in Egypt</b></p>	<p>Özgür Karaoğlu, Fatma Gülmez, Gönenç Göçmengil, Samuele Agostini, Michele Lustrino, Paolo Di Giuseppe, Piero Manetti, Mehmet Yılmaz Savaşçın   <b>Isotopic and Trace Element Geochemistry of Karlova-Varto volcanism (Eastern Turkey): Deciphering the mantle source, crustal contributions and its tectonic controls</b></p>
11:00	<p>Jonas Kley, Hilmar von Eynatten, István Dunkl, Elco Luijendijk   <b>Mesozoic-Cenozoic uplift and exhumation in Central Europe – data and a working hypothesis</b></p>	<p>Oliver Jäger, Jakob Surma, Nina Albrecht, Christian Marien, Wanli Xiang, Konstantin Kontekakis, Joachim Reitner, Andreas Pack   <b>High-precision triple oxygen isotopes of Archean carbonates</b></p>	<p>Reinhard Wolff, Ralf Hetzel, István Dunkl, Qiang Xu, Michael Bröcker, Aneta A. Anczkiewicz   <b>High-angle normal faulting at the Tangra Yumco graben (southern Tibet) since ~15 Ma</b></p>	<p>Christina Springsklee, Thomas Steiner, Thomas Geisberger, Bettina Scheu, Claudia Huber, Wolfgang Eisenreich, Corrado Cimarelli, Donald Bruce Dingwell   <b>Prebiotic synthesis in volcanic discharges: exposing porous ash to volcanic gas atmospheres</b></p>
11:15	<p><b>BREAK &amp; Start of new session at 12:00</b></p>	<p>Dorothee Siefert, Markus Wolfgramm, Thomas Kölbl, Elisabeth Eiche, Jochen Kolb   <b>Characterization and differentiation of two different marbles as possible reservoir rocks in geothermal systems by stable isotope investigations – An example from Western Anatolia, Turkey</b></p>	<p>Philipp Balling, Christoph Grützner, Wim Spakman, Kamil Ustaszewski   <b>The Adriatic slab gap: Regional-scale surface uplift in the Dinarides fold-thrust belt validated by geomorphologic indices</b></p>	<p><b>BREAK</b></p>
11:30		<p>Theis Winter, Elco Luijendijk, Christoph von Hagke, Grant Ferguson   <b>Hydrochemistry and isotope hydrology of thermal springs in the Alps</b></p>	<p>Andrea Madella, Todd A. Ehlers   <b>Forearc growth through back-ground seismicity in Peru-Chile</b></p>	<p><b>Keynote: Jeremy Bellucci   Finding a piece of Earth on the Moon?</b></p>
11:45		<p>Christian A. Bergemann, Edwin Gnos, Alfons Berger, Emilie Janots, Martin J. Whitehouse   <b>Hydrothermal monazite dating in the Lepontine Dome between exhumation and shear zone activity</b></p>		
12:00	<p><i>Keynote: Micha Ruhl, Weimu Xu, Hugh Jenkyns, Stephen Hesselbo   <b>The expression of global Oceanic Anoxic Events (OAE) in continental interiors: An example from the Early Jurassic Toarcian OAE</b></i></p>		<p>Hans-Joachim Massonne   <b>The problem of misconceptions for understanding Phanerozoic collisional orogens</b></p>	<p>Jan Leitner, Peter Hoppe, János Kodolányi   <b>High-resolution Mg-isotope investigation of presolar silicates: New implications for the stardust inventory of the Solar System</b></p>
12:15				<p>Jakob Storz, Addi Bischoff, Markus Patzek, Surya Snata Rout, Thomas Ludwig, Mario Trieloff   <b>Graphite in Meteorites – Occurrence, Abundance and Origin</b></p>







Castle S8	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula
10:00			
<p><b>12a)-1: New Models for Old Deposits</b> Chairs: Max Frenzel &amp; Torsten Graupner</p>	<p><b>1)-2: Understanding Early Earth processes using novel geochemical approaches and methods</b> Chairs: Erik E. Scherer, Axel Gerdes &amp; Armin Zeh</p>	<p><b>10a)-2: Minerals in the depths: an experimental approach</b> Chair: Anna Pakhomova</p>	<p><b>6b)-2: Reaction and deformation</b> Chairs: Claudia A. Trepmann &amp; Sumit Chakraborty</p>
<p><i>Keynote:</i> <u>Mathias Burisch</u>   <b>New models for old districts - The Erzgebirge Metallogenic Province</b></p>	<p><u>Martina Menneken</u>, Alexander Nemchin, Thorsten Geisler, Martin Whitehouse   <b>In-situ identification of Archean high Th and U zircons in Jack Hills metasediment</b></p>	<p><i>Keynote:</i> Catherine McCammon   <b>When history is written in sample heterogeneity</b></p>	<p><u>Agnes Kontny</u>, Boris Reznik, Mario Walter, Helena Fuchs, Frank Schilling   <b>Magnetic signatures of rock deformation</b></p> <p style="text-align: right;">10:45</p>
	<p><u>Alessandro Maltese</u>, Klaus Mezger, Dewashish Upadhyay, Erik Scherer   <b>Constraints on Earth's Paleoproterozoic crustal evolution by bulk Lu-Hf isotope analysis of single zircon grains</b></p>		<p><u>Helena Fuchs</u>, Boris Reznik, Frank Schilling, Agnes Kontny   <b>Variations of magnetic Verwey transition: New insights through magnetic susceptibility of magnetite-rich rocks deformed under laboratory seismic-related fatigue loadings</b></p> <p style="text-align: right;">11:00</p>
<p><u>Nils Reinhardt</u>, Max Frenzel, Jens Gutzmer, Lawrence D. Meinert, Axel Gerdes, Mathias Burisch   <b>Mineralogy of the polymetallic Waschleithe Zn-Pb-(W) skarn – implications for skarn genesis in the Schwarzenberg district, western Erzgebirge, Germany</b></p>	<p><u>Sampriti Basak</u>, Aitor Cambeses, Sumit Chakraborty   <b>Formation of charnockitic silicic rocks in the Archean: a case study from Coorg, S. India</b></p>	<p>Jürgen Schawe, <u>Kai-Uwe Hess</u>, Donald B. Dingwell   <b>The kinetics of the glass transition of silicate glass measured by fast scanning calorimetry</b></p>	<p><i>Keynote:</i> John Wheeler   <b>Chemical effects in stressed systems: think global, act local</b></p> <p style="text-align: right;">11:15</p>
<p><u>Tim Rödel</u>, Bodo-Carlo Ehling   <b>Unravelling the geological structure and mineralizing vectors using detailed petrographic investigations – a case study from the Delitzsch tungsten skarn occurrence, Central Germany</b></p>	<p><u>Jonas Tusch</u>, Carsten Münker, Mike Jansen, Eric Hasenstab, Chris S. Marien, Florian Kurzweil, Martin van Kranendonk   <b><sup>182</sup>W isotope patterns in mantle derived and crustal rocks from the Pilbara Craton, NW Australia</b></p>	<p><u>Sando Sawa</u>, Jun Muto, Nobuyoshi Miyajima, Hiroyuki Nagahama   <b>Grain Size Dependency of Ge-Olivine/Spinel on Phase Transformational Faulting Mechanism for Deep-focus Earthquakes</b></p>	<p style="text-align: right;">11:30</p>
<p><u>Laura Swinkels</u>, Constantin Rossberg, Jan Schulz-Isenbeck, Max Frenzel, Jens Gutzmer, Mathias Burisch   <b>Epithermal Ag-(Au)-Zn-Pb mineralisation in the northern part of the Freiberg District, Germany</b></p>	<p><u>Eric Hasenstab</u>, J. Tusch, C. Schnabel, C. S. Marien, V. Schmitt, M. Van Kranendonk, C. Münker   <b>Hafnium and Nd isotope constraints on Archean mantle-depletion processes from the Pilbara Craton, NW Australia</b></p>	<p><u>Alexandra L. Huber</u>, Soraya Heuss-Aßbichler, K. Thomas Fehr   <b>Petedunnite, a high-pressure indicator: Influence of Fe &amp; FO2 on the stability of zinc bearing clinopyroxenes</b></p>	<p><u>Evangelos Moulas</u>, Dimitrios Kostopoulos, Elias Chatzitheodoridis   <b>Metamorphic Pressures from Elastic Geobarometry: A novel formalism with application to the Rhodope Metamorphic Province, Greece</b></p> <p style="text-align: right;">11:45</p>
<p><u>Marie Guilcher</u>, Anna Schmaucks, Jens Gutzmer, Gregor Markl, Mathias Burisch   <b>Mineralogical and geochemical zonation in five-element (Ag-Bi-Co-Ni-As±U) veins of the Annaberg district, Erzgebirge (Germany)</b></p>	<p><u>J. Elis Hoffmann</u>, Patrick Gans, Alfred Kröner   <b>PGE and Re-Os isotope systematics of 3.46 Ga meta-komatiites from the Dwalile Greenstone Remnant, Swaziland</b></p>	<p><u>Alexander Kurnosov</u>, Giacomo Criniti, Tiziana Boffa Ballaran, Hauke Marquardt, Daniel J. Frost   <b>Earth's lower mantle elasticity from mineral-physics constraints</b></p>	<p><i>Keynote:</i> Lucie Tajcmanova   <b>What's Next? Exploring the future of metamorphic geology</b></p> <p style="text-align: right;">12.00</p>
<p><u>Sebastian Haschke</u>, Jens Gutzmer, Dennis Krämer, Mathias Burisch   <b>The Niederschlag fluorite-barite deposit, Erzgebirge, Germany – a fluid inclusion study</b></p>	<p><u>Seema Kumari</u>, Andreas Stracke, Debajyoti Paul   <b>Inferences on crustal growth and mantle heterogeneity from open system models of the Earth</b></p>	<p><u>Christian Plückerthun</u>, R. Husband, H.-P. Liermann, G. Morard, Z. Konopkova   <b>Towards studying kinetics of structural and electronic phase transitions at variable strain rates using diamond anvil cells</b></p>	<p>12:30-12:45 <u>Sumit Chakraborty</u>, Christopher Beyer   <b>Chemically induced recrystallization: Implications for grain recycling and diffusion chronometry</b></p> <p style="text-align: right;">12:15</p>

# Detailed programme Tuesday, 24 September 2019

	H2	H3	H4	Castle Aula
12:30	LUNCH BREAK   POSTER SESSION   EXHIBITION			
14:00	<b>Plenary Lecture: Prof. Craig Manning (University of California at Los Angeles (UCLA), USA) <i>Fluids in the lower crust:</i></b>			
14:45	<b>DMG Award ceremony</b>			
15:15	COFFEE BREAK   POSTER SESSION   EXHIBITION			
	<p><b>4e/f): Archives of environmental changes throughout Earth history: bio- and authigenic mineralization to paleoenvironmental reconstruction</b> <i>Chairs: Johann P. Klages &amp; Gerhard Kuhn</i></p>	<p><b>7c): Rock and fluid dynamics in deep sedimentary systems</b> <i>Chair: Rüdiger Lutz</i></p>	<p><b>3c): Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?</b> <i>Chairs: Ulf Linnemann &amp; Martin Salamon</i></p>	<p><b>2b): High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples</b> <i>Chairs: Christian Vollmer, Dennis Harries &amp; Julia Roszjar</i></p>
15:45	<p><u>Guido Meinhold</u>, Sören Jensen, Magne Høyberget, Arzu Arslan, Anette E. S. Högström, Jan Ove R. Ebbestad, Teodoro Palacios, Heda Agić, Wendy L. Taylor   <b>Carbonates with spherulites and cone-in-cone structures from the Precambrian of Arctic Norway, and their palaeoenvironmental significance</b></p>	<p><u>Joschka Röth</u>, Ralf Littke   <b>Geochemical and petrographical analysis of the Mesozoic Birkhead and Murta source rock formations, Eromanga Basin, Central Australia</b></p>	<p><i>Keynote:</i> Gabriel Gutierrez-Alonso   <b>How did Pangea behave? Rethinking some tectonic processes in a superplate world</b></p>	<p><u>Markus Patzek</u>, Yogita Kadlag, Addi Bischoff, Robbin Visser, Harry Becker, Timm John   <b>Xenolithic C1 Clasts and their Relation to the Host Rocks Revealed by Chromium Isotopes and Trace Element Concentrations</b></p>
16:00	<p><i>Keynote:</i> Nicola Allison   <b>Coral geochemistry: a window into the biomineralisation process</b></p>	<p><u>Philipp Weniger</u>, Martin Blumenberg, Kai Berglar, Martin Krüger, Rüdiger Lutz   <b>Bound gas in near-surface sediment from the Barents Sea and North East Greenland Shelf</b></p>		<p><u>Doreen Schmidt</u>, Dennis Harries, Agnese Fazio, Hanns-Peter Liermann, Kilian Pollok, Falko Langenhorst   <b>Dynamic Deformation of Meteoritic Iron in a Diamond Anvil Cell: In-situ Observation of the <math>\epsilon</math>-Iron Phase Transition and the Formation of Shock Defects</b></p>
16:15		<p><u>Felix Froidl</u>, Alireza Baniasad, Ralf Littke   <b>Kinetic Modeling of Westphalian Coals: Insights from Artificial Heating Experiments on a Maturity Sequence</b></p>	<p><u>Tobias Stephan</u>, Delia Rösel, Rolf L. Romer, Uwe Kroner   <b>From a bipartite Gondwanan shelf to an arcuate Variscan belt: The early Paleozoic evolution of northern Peri-Gondwana</b></p>	<p><u>Tamara E. Koch</u>, Frank E. Brenker, Emilia Götz, Ute Kolb, Dave J. Prior, Kat Lilly, Alexander N. Krot, Anja Schreiber, Martin Bizzarro   <b>Shock History of the Metal-rich CB Chondrite Quebrada Chimbo-razo (QC) 001</b></p>
16:30	<p><u>Linda Sobolewski</u>, Andreas Pflitsch   <b>Understanding the Interaction between Glaciers and Volcanoes through Glacier Cave Research</b></p>	<p>Anna Kutovaya, Karsten Kroeger, Hannu Seebeck, Stefan Back, Sebastian Grohmann, <u>Ralf Littke</u>   <b>Thermal effects of magmatism on surrounding sediments and petroleum systems in the northern offshore Taranaki Basin, New Zealand: a numerical basin modelling study</b></p>	<p><u>Jiří Žák</u>, Ianko Gerdjikov, Alexandre Kounov, Dian Vangelov, Jaroslava Hajná, Martin Svojtka, Lukáš Ackerman   <b>Beyond the Bohemian Massif: search for Cadomian and Variscan correlates in the Balkans</b></p>	<p>Lidia Pittarello, <u>Julia Roszjar</u>, Luke Daly, Christoph Lenz, Chutimun Chanmuang N., Ludovic Ferrière, Joerg Fritz, Peter Chung, Anemarie E. Pickersgill, Martin R. Lee, Christian Koerber   <b>The incomplete amorphization of natural and experimentally shocked plagioclase investigated by optical and electron microscopy, and various spectroscopic techniques</b></p>

Sessions to be continued ...



Castle S8	Castle S10	Schlossplatz 7   Hof: SP 7	Schlossplatz 4   SP 4 201	
Sektion Sedimentologie Room: Castle   S 055		AK DMG „Schule und Hochschule“ Room: Castle   S 062		12:30
<b>deep is different</b>   Lecture hall H1				14:00
				14:30
				15:15
<b>12a)-2: New Models for Old Deposits</b> Chair: Dennis Krämer	<b>15b)-1: Volcanic geology</b> Chairs: Christoph Breitzkreuz & Thomas Walter	<b>1)-3: Understanding Early Earth processes using novel geochemical approaches and methods</b> Chairs: Sümeyya Eroglu & Harald Strauß	<b>5d): The role of subduction zones on Earth's dynamic evolution</b> Chair: Stephan König	
Ulrich Schwarz-Schampera, Harold Gibson, Dieter Garbe-Schönberg, Meike Klischies, Ralf Freitag   <b>New vents and extensive sulfide fields off-axis the Southeast Indian Ridge, Indian Ocean: Results from seafloor sulfide exploration</b>	Susi Pepe, Luca De Siena, Andrea Barone, Raffaele Castaldo, Luca D' Auria, Mariarosaria Manzo, Francesco Casu, Maurizio Fedi, Riccardo Lanari, Francesca Bianco, Pietro Tizzani   <b>Integration of SAR and Seismic Interferometry imaging techniques to investigate volcanism at Campi Flegrei caldera</b>	Keynote: Paul Mason   <b>Stable isotope biosignatures: from modern analogue to ancient ecosystem</b>	Keynote: Frances E. Jenner   <b>Mantle controls on the variability of chalcophile elements in subduction-related magmas</b>	15:45
Jürgen Lang, Patrick Meere, Richard Unitt, Sean Johnson   <b>The Historic Copper Mines of Southwest Ireland – A New Chronological Evaluation on Vein-hosted Mineral Deposits</b>	Thomas Walter   <b>Lava dome growth monitoring at Nevado del Ruiz using high-resolution TerraSAR-X amplitude imagery</b>			16:00
Max Frenzel, Mathias Burisch, Markus Röhner, Nigel J. Cook, Sarah Gilbert, Cristiana L. Ciobanu, John Güven, Jens Gutzmer   <b>Explaining metal zonation at the Lisheen Zn-Pb deposit, Ireland</b>	Bjarne Friedrichs, Axel K. Schmitt, Julie C. Schindlbeck-Belo, Martin Danisik, Gokhan Atici, Esra Yurteri, Mehmet Cobankaya, Susanna F. Jenkins, R. Stephen J. Sparks   <b>Mediterranean S1 Tephra as a Marker Horizon for the Fertile Crescent: Source Evidence and Characterization of the 9 ka Dik-kartin Dome (Mt. Erciyes, Turkey) Eruption</b>	Simon L. Schurr, Vanessa Fichtner, Harald Strauss, Adrian Immenhauser, Crisogono Vasconcelos, Sabrina Hänsch, Vera Heßeler, Camila Areias de Oliveira, Catia Fernandes-Barbosa   <b>The influence of microbial sulfate reduction on the sulfur isotopic composition of CAS in modern Mg-rich carbonates from Lagoa Vermelha and Brejo do Espinho, Brazil</b>	Katy Evans, Ron Frost   <b>Deserpentinization is not the reverse of serpentinization: implications for redox budget transfer and the oxidation of arc-magma source zones</b>	16:15
Leanne Schmitt, Thomas Angerer, Thomas Kirnbauer, Sabine Klein   <b>Genetic processes and source components in submarine iron ores: Insights from the Lahn-Dill-type iron ores, Rhenish Massif, Germany</b>	Xiaolong Zhou, Pieter Vroon, Klaudia Kuiper, Jan Wijbrans   <b>Parameters controlling the cyclic activity of silicic volcanic systems: evidence from Milos (Greece)</b>	Florian Kurzweil, Martin Wille, Olaf Dellwig, Ronny Schoenberg, Carsten Münker   <b>The stable W isotope composition of Fe/Mn-rich sediments from the Baltic Sea</b>	Aierken Yierpan, Stephan König, Jabrane Labidi, Johannes Redlinger, Maria Isabel Varas-Reus, Ronny Schoenberg   <b>Tracing atmospheric oxygenation with selenium isotopes in mantle melts</b>	16:30

Sessions to be continued ...

# Detailed programme Tuesday, 24 September 2019

	H2	H3	H4	Castle Aula
	<p><b>4e/f): Archives of environmental changes throughout Earth history: bio- and authigenic mineralization to paleoenvironmental reconstruction</b> Chairs: <i>Johann P. Klages &amp; Gerhard Kuhn</i></p>	<p><b>7c): Rock and fluid dynamics in deep sedimentary systems</b> Chair: <i>Rüdiger Lutz</i></p>	<p><b>3c): Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?</b> Chairs: <i>Ulf Linnemann &amp; Martin Salamon</i></p>	<p><b>2b): High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples</b> Chairs: <i>Christian Vollmer, Dennis Harries &amp; Julia Roszjar</i></p>
16:45	<p>Keynote: <u>Gregor Knorr</u>, Lars Rüpke   <b>The geosphere and the climate system: A new dimension of Earth system interaction</b></p>	<p><u>Jashar Arfai</u>, Rüdiger Lutz, Marykeden Dulk, Finn-Christian Jakobsen, Susanne Nelskamp, Stefan Ladage, Peter Britze   <b>3D basin and petroleum system modeling in the North Sea Central Graben: a cross-border Dutch, German and Danish pilot study</b></p>	<p><u>Bernhard Schulz</u>, Joachim Krause, Manuel Lapp   <b>Petrochronology by EPMA and automated SEM in the Saxothuringian high pressure nappes of the central and western Erzgebirge</b></p>	<p><u>Dennis Harries</u>, Agnese Fazio, Falko Langenhorst, Toru Matsumoto   <b>Exploring radiation damage on near-Earth asteroid 25143 Itokawa by TEM</b></p>
17:00		<p><u>Alireza Baniasad</u>, Ralf Littke   <b>Petroleum Systems Modeling in the Northwestern Part of the Persian Gulf, Iranian sector: 3D Basin Modeling</b></p>	<p><u>Martin Salamon</u>, U. Linnemann, M. Piecha, K. Steuerwald, A. Gärtner, J. Zieger, M. Hofmann   <b>U-Pb LA-ICP MS Zircon Ages of Devonian felsic volcanic Rocks in the Rheinsh Massif (North Rhine-Westphalia)</b></p>	<p><u>Joachim Krause</u>, Steven M. Reddy, William D.A. Rickard, David W. Saxey, Denis Fougerouse, Matthias E. Bauer   <b>Nanoscale compositional segregation and structure in complex In-bearing sulfides: Results from transmission</b></p>
17:15	<p><u>Nikola Koglin</u>, Gerhard Kuhn, Christoph Gaedicke, Olaf Eisen, Andreas Läufer, Raphael Gromig, Emma Smith, Jan Tell, Ralf Tiedemann, Frank Wilhelms, Xiaopeng Fan, Boris Biskaborn, Gong Da   <b>Preliminary data from short sediment drill cores beneath the Ekström Ice Shelf, Antarctica</b></p>	<p><u>Alexander Monsees</u>, Benjamin Busch, Nadine Schöner, Christoph Hilgers   <b>Reservoir quality controls in deeply buried Rotliegend sandstones and their outcrop analogs</b></p>	<p><u>Ulf Linnemann</u>, Martin Salamon, Matthias Piecha, Andreas Gärtner, Mandy Hofmann, Johannes Zieger   <b>New U-Pb ages of detrital zircon from the central Variscan orogen and its Avalonian-Cadomian precursors</b></p>	<p><u>Axel D. Renno</u>, Georg Rugel, Michael Wiedenbeck, René Ziegenrücker   <b>Halogen analysis of sulphide minerals at the ultratrace level – first applications of the Dresden Super-SIMS</b></p>
17:30	<p><b>Poster Social &gt;&gt; 2c   2d   3b   3c   4a   4g   5a   5c   5d   5e   5f   6a   7b   7c   8a   8c   11   12c   12d   13e   13f</b></p>			
18:30				<p>General assembly DGGV</p>
20:00	<p><b>Public Evening Lecture: Colin Devey (GEOMAR, Kiel) <i>Und dann verschwand ein Ozean´ - wie die geologische Geschichte</i></b></p>			



Castle S8	Castle S10	Schlossplatz 7   Hof: SP 7	Schlossplatz 4   SP 4 201	
<p><b>12a)-2: New Models for Old Deposits</b> Chair: Dennis Krämer</p>	<p><b>15b)-1: Volcanic geology</b> Chairs: Christoph Breitreuz &amp; Thomas Walter</p>	<p><b>1)-3: Understanding Early Earth processes using novel geochemical approaches and methods</b> Chairs: Sümeyya Eroglu &amp; Harald Strauß</p>	<p><b>5d): The role of subduction zones on Earth's dynamic evolution</b> Chair: Stephan König</p>	
<p>Thomas Angerer, Franz Vavtar, Albin Volgger, Peter Tropper, Peter Onuk, Christoph Spötl, Christoph Hauzenberger, Marcel Regelous, Gerhard Hobiger   <b>Rare metal partitioning in a metamorphosed SHMS system: the Austroalpine polymetallic ore district</b></p>	<p>Hripsime Gevorgyan, Christoph Breitreuz, Khachatur Meliksetian, Yura Ghukasyan, Ruben Jr-bashyan, Arsen Israyelyan, Jörg A. Pfänder, Daniel Miggins, Anthony Koppers   <b>Physical volcanology of Quaternary ignimbrites in the Aragats Volcanic Province (Lesser Caucasus): a lithofacies-based approach</b></p>	<p>Katharina Schier, David M. Ernst, Dieter Garbe-Schönberg, Michael Bau   <b>Applicability of the Ge/Si ratio in BIFs as a source proxy for silica in the Early Earth's ocean – insights from modern marine ferromanganese oxyhydroxides</b></p>	<p>Fatma Gülmez, Dejan Preljevic, Stephan Buhre, Jennifer Günther   <b>Simulating mantle metasomatism by reacting carbonate-rich sediment with peridotite at forearc mantle P-T conditions</b></p>	16:45
<p>Sandra C. Wind, Mark D. Hannington, David A. Schneider   <b>Regional scale geochemical investigation of precious and base metal-rich deposits in the Cyclades, Greece</b></p>	<p>Morelia Urlaub, Julia Morgan, Christian Berndt, Jens Karstens   <b>Understanding the 1888 sector collapse of Ritter Island (Papua New Guinea) by integrating 3D seismic data and Discrete Element Models</b></p>	<p>Joanna Lea Claire Brau   <b>Insights on the Archean environment from the oldest sediments on Earth</b></p>	<p>Dennis Berkels, Hans-Joachim Massonne, Thomas Fockenberg   <b>Preliminary experimental results on phase relations in the system <math>K_2O</math>-MgO-<math>Al_2O_3</math>-<math>SiO_2</math>-<math>H_2O</math> at 7-12 GPa to understand phase relations after deep subduction of continental crust</b></p>	17:00
	<p>Andreas Klügel, Miriam Römer, Heinrich Villinger, Folkmar Hauff, Sebastian Krastel   <b>Rejuvenated volcanism at a Cretaceous seamount off El Hierro (Canary Islands)</b></p>		<p>Anna Schaarschmidt, Karsten M. Haase, Reiner Klemd, Panagiotis C. Voudouris, Vasilios Melfos   <b>Alternation of shoshonitic and calc-alkaline magmatism during subduction migration – a cross section through Aegean magmatism</b></p>	17:15

**der Erde unsere Zivilisation ermöglicht** | Lecture hall H1 (in German only!)

# Detailed programme Wednesday, 25 September 2019

	H2	H3	H4	Castle Aula
08:00	Registration			
	<p><b>4a): Limnogeology and paleolimnology including lagoon systems</b>  <i>Chairs: Torsten Haberzettl &amp; Thomas Kasper</i></p>	<p><b>7b)-1: Sediment generation and quantitative provenance analysis</b>  <i>Chair: Paula Castillo</i></p>	<p><b>3b): Tectono-Metamorphic Evolution of the Cyclades, Greece</b>  <i>Chairs: Michael Bröcker &amp; Paris Xypolias</i></p>	<p><b>5f): The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface</b>  <i>Chairs: Daniel Frost &amp; Vladimir Matjuschkin</i></p>
08:30	<p><u>Thorsten Bauersachs</u>, James Russell, Lorenz Schwark   <b>Heterocyst glycolipids: Novel tools for reconstructing continental climate change using lacustrine deposits</b></p>	<p><u>Mandy Hofmann</u>, Johannes Ziegler, Andreas Gärtner, Rita Krause, Ulf Linnemann   <b>Studies on the Marinoan tillite of the Port Nolloth Zone in southern Namibia: zircon analyses on matrix and pebbles and their significance for provenance studies of glacial deposits</b></p>	<p><i>Keynote:</i> Laurent Jolivet   <b>Tectonic and geodynamic evolution of the Aegean region, from mantle dynamics to crustal evolution</b></p>	<p><i>Keynote:</i> <u>Eiji Ohtani</u>, Itaru Ohira, Jenifer Jackson, Takayuki Ishii, Wen-Pin Hsieh   <b>Role of high pressure hydrous phase in lower mantle dynamics</b></p>
08:45	<p>Olaf K. Lenz, Volker Wilde, Walter Riegel   <b>The Early Eocene of Schöningen - Testing effects of climate variations on coastal wetlands under greenhouse conditions</b></p>	<p><u>Johannes Zieger</u>, Marika Stutzriemer, Mandy Hofmann, Andreas Gärtner, Axel Gerdes, Linda Marko, Ulf Linnemann   <b>The evolution of the southern Namibian Karoo aged basins – Implications from detrital zircon data</b></p>		
09:00	<p><u>Maryam Moshayedi</u>, Jürgen Mutzl, Olaf K. Lenz, Volker Wilde, Matthias Hinderer   <b>Terrestrial archives from the Eocene greenhouse of Central Europe: Palynological studies of lacustrine sediments on the Spindlinger Horst (Southwest Germany)</b></p>	<p><i>Keynote:</i> Roland Stalder   <b>OH defects in quartz as monitor for igneous, metamorphic, and sedimentary processes</b></p>	<p><u>Jan Wijbrans</u>, Bertram Uunk, Manuel Alvarez Paz, Fraukje Brouwer   <b>Dating white micas in the blueschist-greenschist domain: pointless or worthwhile?</b></p>	<p><u>Vladimir Matjuschkin</u>, Alan B. Woodland, Daniel Frost, Gregory Yaxley   <b>Formation of diamond from methane-rich fluids</b></p>
09:15	<p><u>Elodie Lebas</u>, Martin Melles, Andrej Andreev, Marlene Baumer, Dmitri Bolshiyarov, Grigory Fedorov, Raphael Gromig, Svetlana Kostrova, Sebastian Krastel, Anna Ludikova, Hanno Meyer, Luidmila Pestryakova, Larissa Savelieva, Lyudmila Shumilovskikh, Dmitry A. Subetto, Bernd Wagner, Volker Wennrich, Martin Werner   <b>Assessing the Late Quaternary climatic and environmental history of the Russian Arctic – keys results of the Russian-German PLOT (Paleolimnological Transect) project</b></p>		<p><u>Bertram Uunk</u>, Rosanne Huybens, Boris Versteegh, Onno Postma, Fraukje Brouwer, Jan Wijbrans   <b>Extracting metamorphic time scales using fluid inclusions</b></p>	<p><u>Niklas Ottersberg</u>, Jasper Berndt, Niels Jöns, Christopher Beyer   <b>Formation of diamonds from reduced COH fluids and their genetic link to pyroxenite/eclogite in the Earth's upper mantle</b></p>

Sessions to be continued ...







Castle S8	Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	
<p><b>12c): Mineralogy of Ore Deposits – Genesis, Characterization, and Applications</b> Chairs: Malte Junge &amp; Lennart A. Fischer</p>	<p><b>5b)-2: Volcanic geology</b> Chairs: Christoph Breitzkreuz &amp; Thomas Walter</p>	<p><b>11a): Structural properties of minerals and materials</b> Chairs: Michael Fischer &amp; Thomas Malcherek</p>	<p><b>8c)-1: Geosciences and safe nuclear waste disposal – current status and future directions</b> Chairs: Axel Liebscher &amp; Fabien Magri</p>	<p><b>13f)-1: Research data and software management in times of FAIR and Open Data</b> Chair: Andreas Hübner &amp; Dirk Fleischer</p>	08:00
<p>Simon Müller, Jeannette Meima, Dieter Rammelmair, Marleen Künker   <b>Using LIBS to detect REE-rich areas in Storkwitz drill cores – A new method for rapid and spatially detailed analysis of geological samples</b></p>	<p>Zakarya Yajoui, Christoph Breitzkreuz, Brahim Karaoui, Abdelkader Mahmoudi   <b>Facies analysis, depositional style and geochemistry of Ediacaran volcano-sedimentary successions at the NE Edge of Saghro inlier (Eastern Anti-Atlas, Morocco)</b></p>	<p>Keynote: Paolo Lotti   <b>In situ synchrotron studies of open-framework silicates at non-ambient temperature and pressure</b></p>	<p>Keynote: Thorsten Schäfer   <b>Geosciences and safe nuclear waste disposal – current status and future directions</b></p>	<p>Keynote: Jens Klump   <b>Wasn't "open" FAIR enough? The future of data and software publication</b></p>	08:30
<p>Robert Trumbull, Marta Codeco, Johannes Glodny, Rolf Romer, Philipp Weis, Michael Wiedenbeck   <b>The use of muscovite for B-isotope studies of hydrothermal ores</b></p>	<p>Jacob Brauner, Martin Arndt, Zakarya Yajoui, Brahim Karaoui, Abdelkader Mahmoudi, Christoph Breitzkreuz   <b>Cambrian alkaline submarine to emergent volcanism near Ouinguigui (Ougnat inlier, eastern Anti-Atlas, Morocco)</b></p>				08:45
<p>Keynote: Sarah Gleeson, Joe Magnall, Merilie Reynolds   <b>Making space for giant Zn deposits in Palaeozoic carbonaceous mudstones: the role of diagenesis</b></p>	<p>Raymundo Casas-García, Vladislav Rapprich, Christoph Breitzkreuz, Yulia V. Kochergina, Martin Svojtka, Bernhard Schulz, Alexander Repstock, Manuel Lapp, Klaus Stanek, Mandy Hofmann, Ulf Linnemann   <b>Volcanic evolution and petrology of a late- to post-Variscan volcanic system: The Carboniferous Altenberg-Teplice Caldera (Germany-Czech Republic)</b></p>	<p>Georg Amthauer, Daniel Rettenwander, Reinhard Wagner, Günther Redhammer   <b>Crystal Chemistry of the Ion Conducting Li-Oxide Garnet doped with Al, Ga, and Fe</b></p>	<p>Martin Herfort, David Jaeggi   <b>The Mont Terri Project: Research in a generic underground research rock laborator</b></p>	<p>Kirsten Elger, Damian Ulbricht, Boris Radosavljevic, Andreas Hübner, Roland Bertelmann   <b>Increasing the visibility of data and samples: publishing services of GFZ Data Services</b></p>	09:00
	<p>Marcel Hübner, Christoph Breitzkreuz, Anna Pietranik, Ulf Linnemann, Franziska Heuer, Alexander Repstock   <b>The Lower Permian Rochlitz caldera: A supervolcano in Central Europe</b></p>	<p>Irina Margaritescu, Kaustuv Datta, Jun Chen, Boriana Mihailova   <b>Composition dependency of the temperature-driven structural changes in (1-x) PbTiO<sub>3</sub>-xBiNi<sub>0.5</sub>Ti<sub>0.5</sub>O<sub>3</sub></b></p>	<p>Ingo Kock, Klaus Fischer-Appelt, Martin Navarro   <b>VerSi - A method for comparing repositories for radioactive waste in different host rocks</b></p>	<p>Bianca Wagner, Birgit Schmidt, Timo Gnadt, MEET Team   <b>Visual Project Summary, Bull-Eye Chart, Task Bingo and Work Package Chess - graphical tools for a data management workshop within the Horizon 2020 MEET project</b></p>	09:15

Sessions to be continued ...

# Detailed programme Wednesday, 25 September 2019

	H2	H3	H4	Castle Aula
	<b>4a): Limnogeology and paleolimnology including lagoon systems</b> <i>Chairs: Torsten Haberzettl &amp; Thomas Kasper</i>	<b>7b)-1: Sediment generation and quantitative provenance analysis</b> <i>Chair: Paula Castillo</i>	<b>3b): Tectono-Metamorphic Evolution of the Cyclades, Greece</b> <i>Chairs: Michael Bröcker &amp; Paris Xypolias</i>	<b>5f): The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface</b> <i>Chairs: Daniel Frost &amp; Vladimir Matjuschkin</i>
09:30	<u>Jürgen Mutz</u> , Olaf K. Lenz, Günter Landmann, Matthias Hinderer   <b>The Holocene lacustrine record of the Layla Lakes (central Saudi Arabia): The use of phytolith analysis for the reconstruction of paleoenvironment and paleoclimate</b>	<u>Dominik Jaeger</u> , Roland Stalder, Hideki Masago, Michael Strasser   <b>OH defects in quartz as a provenance tool: Application to fluvial and deep marine sediments from SW Japan</b>	<u>Alexandre Jean</u> Daniel Peillod, Johannes Glodny, Uwe Ring, Alasdair Skelton, Igor Maria Villa   <b>Sr and Ar diffusion systematics in polygenetic white micas from Naxos</b>	<u>Serena Dominijanni</u> , Catherine A. McCammon, Leonid Dubrovinsky, Daniel J. Frost, Nobuyoshi Miyajima, Tiziana Boffa Ballaran   <b>Understanding the redox conditions during diamond anvil cells experiments</b>
09:45	<u>Paul Strobel</u> , Torsten Haberzettl, Marcel Bliedtner, Thomas Kasper, Julian Struck, Matthias Zabel, Roland Zech   <b>A 8.5 kyr high-resolution multi-proxy paleoclimate record from lake Voëlvelei, Southern Cape, South Africa</b>	Jan Schönig, Hilmar von Eynatten, Guido Meinhold, Keno Lünsdorf   <b>Dispersed occurrence of mafic and felsic ultrahigh-pressure rocks in the central Saxonian Erzgebirge (Germany) revealed by diamond and coesite inclusions in detrital garnet</b>	<u>Jesse B Walters</u> , Alicia Cruz-Uribe, Horst Marschall   <b>Metasomatic sulfur-driven redox reactions: A case study of Syros, Greece</b>	<u>Caterina Melaj</u> , Daniel J. Frost, Tiziana Boffa Ballaran, Catherine McCammon, Katharina Marquardt   <b>The oxygen fugacity of sublithospheric diamond formation and the conditions encountered during their ascent to the surface</b>
10:00	<u>Paul Mehlhorn</u> , Finn Viehberg, Jemma Finch, Peter Frenzel, Olga Gildeeva, Andrew Green, Trevor Hill, Marc Humphries, Torsten Haberzettl   <b>Heavy metals in surface sediments of Richards Bay Harbour: anthropogenic impact on the former Mhlatuze estuary, South Africa</b>	<b>Leopold-von-Buch-Medal 2019:</b> Xavier Le Pichon, A.M. Celâl Şengör, Caner Imren   <b>Pangea and the Lower Mantle</b>	<u>Paris Xypolias</u> , Nikolaos Gerogiannis, Eirini Aravadinou, Kostas Papapavlou, Vasileios Chatzaras   <b>Fabric-forming amphiboles in the Cycladic Blueschists and their tectonic implications</b>	<u>Sumith Abeykoon</u> , Anna M. Rebaza, Daniel J. Frost, Vera Laurenz, Nobuyoshi Miyajima   <b>Mantle thermometry using sulphide inclusions in diamonds</b>
10:15	<u>Lailah Gifty Akita</u> , Edem Mahu, Kwesi Appeaning-Addo, Samuel Addo, Juergen Laudien, Charles Biney, Elvis Nyarko   <b>Geometals in sediment from Densu estuary, Ghana: potential proxy's for reconstructions</b>		<u>Thomas Neil Lamont</u> , Mike Searle, Nick Roberts, Phillip Gopon, Dave Waters   <b>The age, origin and emplacement of the Tsiknias Ophiolite, Tinos, Greece</b>	<u>Dmitry Bondar</u> , Hongzhan Fei, Tony Withers, Tomoo Katsura   <b>Water partitioning between upper mantle minerals and melts</b>
10:30	COFFEE BREAK   EXHIBITION			
11:00	<b>Plenary Lecture: Prof. Jim Head (Brown University, USA) 50 Years Since Apollo: The Earth in the Context of Solar System Exploration</b>			
11:45	<b>DGGV &amp; DMG award ceremony</b>   Lecture hall H1			
12:00	LUNCH BREAK   EXHIBITION			





Castle S8	Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	
<p><b>12c): Mineralogy of Ore Deposits – Genesis, Characterization, and Applications</b> Chairs: Malte Junge &amp; Lennart A. Fischer</p>	<p><b>5b)-2: Volcanic geology</b> Chairs: Christoph Breitzkreuz &amp; Thomas Walter</p>	<p><b>11a): Structural properties of minerals and materials</b> Chairs: Michael Fischer &amp; Thomas Malcherek</p>	<p><b>8c)-1: Geosciences and safe nuclear waste disposal – current status and future directions</b> Chairs: Axel Liebscher &amp; Fabien Magri</p>	<p><b>13f)-1: Research data and software management in times of FAIR and Open Data</b> Chair: Andreas Hübner &amp; Dirk Fleischer</p>	
<p>Marion Louvel   <b>Properties of mineralizing fluids at high-temperature (200 &lt; T &lt; 600 °C): Insights from in-situ spectroscopy</b></p>	<p>Alexander Repstock, Christoph Breitzkreuz, Marcel Hübner, Bernhard Schulz, Rolf L. Romer   <b>A competition between magma mingling and mixing: The monotonous intermediates of the Late Paleozoic North Saxon Volcanic Complex in Central Germany</b></p>	<p>Reinhard X. Fischer, Robert D. Shannon   <b>Comparison of polarizability approach with Gladstone-Dale concept in mineral optics</b></p>	<p>Julia Onneken, Steffen Jahn, Jennifer Klimke, Sönke Reiche, Paul Richter, Julia Rienäcker-Burschil, Eike Völkner, Wolfram Rühaak   <b>Finding a suitable site for a high-level nuclear waste repository - insights into the work of the site selection team at the BGE</b></p>	<p>Andreas-Alexander Maul, Andreas Pasewaldt, Tanja Wodtke   <b>Publication of the Content of BGR's Information Systems to the Semantic Web</b></p>	09:30
<p>Lisa Richter, Larryn W. Diamond   <b>From seawater to black smoker vents: Hydrothermal fluids that leach metals from the oceanic crust and generate VMS deposits</b></p>	<p>Keynote: Olivier Bachmann, O. Laurent, C. Huber, M. Townsend, W. Degruyter, O. Karakas, J. Cornet, J. Wotzlaw   <b>Timescales and processes within transcrustal magmatic systems</b></p>	<p>Anna Pakhomova, Dariia Simonova, Egor Koemets, Iuliia Koemets, Georgios Aprilis, Maxim Bykov, Liudmila Gorelova, Vitali Prakapenka, Leonid Dubrovinsky   <b>High-pressure phases of feldspars with five- and six-fold coordinated aluminium</b></p>	<p>Eva Maria Hoyer, Reinhard Fink, Björn Kröger, Ralf Littke   <b>How does burial history influence the petrophysical properties of Jurassic shales? – Implications for radioactive waste storage in the Lower Saxony Basin</b></p>	<p>Boris Radosavljevic, Kirsten Elger, Damian Ulbricht, Christian Haberland, Javier Quinteros, Roland Bertelmann   <b>A Roadmap for Research Data Management in the Geosciences: Responding to Community Needs</b></p>	09:45
<p>Christof Kusebauch, Sarah A. Gleeson, Marcus Oelze   <b>Giant Carlin-type Au deposits formed by coupled partitioning of Au and As into pyrite</b></p>		<p>Nobuyoshi Miyajima, Danielle Silva Souza, Florian Heidelbach   <b>Dauphiné twin in a naturally deformed quartz: Characterization by electron channelling contrast imaging and large-angle convergent-beam diffraction</b></p>	<p>Florian Eichinger, H. Niklaus Waber   <b>Investigation of porewater in bedrocks – important tools for the geohydrological characterisation and safety assessment of potential deep radioactive waste deposits</b></p>	<p>Sabine Schröder, Sander Apweiler, Rajveer Saini, Björn Hagemeyer, Martin G. Schultz   <b>Enhancing FAIRness of global air quality data: The Tropospheric Ozone Assessment Report database</b></p>	10:00
<p>Clifford Patten, Jochen Kolb, Ferenc Molnár, Iain Pitcairn   <b>The importance of magmatic processes on the formation of orogenic Au deposits: insight from the Central Lapland Greenstone Belt, Finland</b></p>		<p>Michael Fischer   <b>First-principles calculations elucidate the dynamics of extra-framework species in zeolites</b></p>	<p>Katja Emmerich, Klaus Wiczorek, Jürgen Hesser, Matthias Gruner, Christopher Rölke, Ralf Diedel, Thomas Wilsnack, David Jäggi, Franz Königer, Peter Bohac, Rainer Schuhmann   <b>Fluid propagation, swelling pressure and cation exchange in sandwich sealing system</b></p>	<p>Roland Bertelmann, Hildegard Gödde, Gunnar Lischeid, Sören Lorenz, Adrian Krolczyk, Karsten Peters, Martin Schultz, Hannes Thiemann, Gauvin Wiemer   <b>NFDI4Earth: current state and goals for the future</b></p>	10:15
					10:30
Lecture hall H1					11:00
					11:45
		DVGeo Board meeting   Room: Castle S 062			12:00

# Detailed programme Wednesday, 25 September 2019

	H2	H3	H4	Castle S8
	<b>2c): Planetary Accretion and Impact Processes</b> <i>Chairs: Thomas Haber &amp; Gregory Jude Archer &amp; Emily Anne Worsham</i>	<b>7b)-2: Sediment generation and quantitative provenance analysis</b> <i>Chair: Guido Meinhold</i>	<b>6a): Metamorphic processes</b> <i>Chairs: Michael Bröcker &amp; Reiner Klemd</i>	<b>12d): Reuse Potential of Mining Residues</b> <i>Chairs: Jeannette Meima &amp; Malte Drobe</i>
13:00	<u>Meike B. Fischer</u> , Stefan T. M. Peters, Paul Hartogh, Andreas Pack   <b>The triple oxygen isotope composition of lunar rockste</b>	<i>Keynote: Yves Godderis, Yannick Donnadieu, Pierre Maffre</i>   <b>Relative importance of palaeogeography versus solid Earth degassing rate in the Phanerozoic climatic evolution</b>	<i>Keynote: Jarosław M. Majka, Karolina Kościńska, Christopher J. Barnes, Michał Bukała</i>   <b>Early Paleozoic blueschists from the Scandinavian and Svalbard Caledonides – what can they tell us?</b>	<i>Keynote: Bernhard Dold</i>   <b>Sourcing of critical elements and minerals from mine waste</b>
13:15	<u>Thorsten Kleine</u> , Gerrit Budde, Christoph Burkhardt   <b>An outer solar system origin of the Moon-forming impactor</b>			
13:30	<i>Keynote: Paolo A. Sossi</i>   <b>Mechanics and conditions for devolatilising the Moon</b>	<u>Kazem Shabanigoraji</u> , Jafar Rahnamarad   <b>Meanders Displacement Due to Implementation of Organizing Plans in the Bahokalat River, South East of Iran</b>	<u>Arne P. Willner</u> , Johannes Glodny, Masafumi Sudo, Cees R. Van Staal, Alexandre Zagorevski   <b>Evolution of a suture zone (Baie Verte Line; W Newfoundland, Canada) during a “hard” continent-arc collision: evidence from conditions and timing of metamorphism</b>	<u>Philipp Büttner</u> , Jochen Nühlen, Jeannette Meima, Jens Gutzmer   <b>Re-mining of mine wastes in Germany: Challenges and opportunities</b>
13:45		<u>Hans-Jürgen Gawlick</u> , Sigrid Missoni   <b>Provenance analysis of carbonate and radiolarite pebbles of Jurassic sedimentary mélanges in the Circum Pannonian orogens (Western Tethys)</b>	<u>Osman Parlak</u> , Istvan Dunkl, Albrecht von Quadt, Fatih Karaoglan, Timothy M Kusky, Chao Zhang, Lu Wang, Jürgen Koepke, Zeki Billor, Willis A. Hames, Emrah Simsek, Gökce Simsek, Tugce Simsek   <b>Subduction Initiation &amp; metamorphosis sole formation from the Lycian ophiolites, SW Turkey: Evidence for timing of plate boundary magmatism and metamorphism</b>	<u>Jeannette Meima</u> , Dieter Rammlmair, Kerstin Kuhn, Khulan Berkh   <b>Innovative exploration of mine tailings based on core scanner applications</b>
14:00	<u>Dominik Loroach</u> , Sebastian Hackler, Arno Rohrbach, Stephan Klemme   <b>Modeling partitioning of SVEs during Earth’s core formation</b>	<u>Maximilian Dröllner</u> , Rüdiger Stein, Heinrich Bahlburg, Jasper Berndt, PS115/2 Science Party   <b>Provenance of central Arctic Ocean ice-rafted debris: the first U-Pb zircon ages for Lomonosov Ridge during the late Quaternary</b>	<u>Patrick Bobek</u> , Soenke Brandt, Reiner Klemd, Ewereth Muvangua   <b>Low pressure-high temperature metamorphism and migmatization in the Proterozoic Epupa Complex, NW Namibia</b>	<u>Eugen Martac</u> , Uta Alich   <b>Next Generation of Tailing Exploration Technologies: XRF-CPT Probe as Real-Time High Resolution Tool for Low Invasive Tailing Characterization</b>
14:15	<u>Sebastian Hackler</u> , Dominik Loroach, Arno Rohrbach, Stephan Klemme, Jasper Berndt   <b>Chalcophile Element Accretion from the Late Veneer</b>	<u>Fernando Panca</u> , Heinrich Bahlburg, Jasper Berndt, Axel Gerdes   <b>Provenance, facies, geochronology and tectonic evolution of continental extensional basins: a case study of the Permotriassic Mitu Group (Central Andes, Peru)</b>	<u>Jürgen Reinhardt</u> , Dirk Frei   <b>Reconstitution of mineral compositions reflecting peak-metamorphic conditions: Ti-in-quartz thermobarometry applied to ultrahigh-temperature granulites</b>	<u>Marie Christin Hoffmann</u> , Christian Adam, Christiane Stephan-Scherb, Christian Vogel, Lutz Hecht   <b>Novel approaches to Scandium-species investigation in Bauxite residues by X-ray adsorption near edge structure spectroscopy - Looking for the needle in a haystack</b>

Sessions to be continued ...





Castle S10	Schlossplatz 7 Hof SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula	
<p><b>5c): Intraplate volcanism, mantle plumes and continental breakup</b>  <i>Chairs: Stephan Homrighausen &amp; Guillaume Jacques</i></p>	<p><b>8a): Geological and hydro-geological characterisation of reservoir rocks</b>  <i>Chairs: Patricia Göbel &amp; Matthias Hinderer &amp; Maria-Theresia Schafmeister</i></p>	<p><b>8c)-2: Geosciences and safe nuclear waste disposal – current status and future directions</b>  <i>Chairs: Axel Liebscher &amp; Fabien Magri</i></p>	<p><b>13f)-2: Research data and software management in times of FAIR and Open Data</b>  <i>Chair: Andreas Hübner &amp; Dirk Fleischer</i></p>	
<p><i>Keynote: Christine Meyzen, M. Maia, J.P. Morgan, T. Waight, C. Hemond, A. Marzoli, A.Y. Borissova, H. Sato</i>   <b>Did Gondwana breakup trigger the formation of a(nother) Large Igneous Province in the southwestern Indian Ocean?</b></p>	<p><i>Rolf &amp; Marlies-Teichmüller-Award: Henny Gerschel</i>   <b>Coal as a Natural Archive: New Implications from the Miocene Lignites of the Lower Rhine Basin</b></p>	<p><i>Jeoung Seok Yoon, Arno Zang, Ove Stephansson, Carl-Henrik Pettersson, Flavio Lanaro</i>   <b>Numerical modelling of fracture stability of a proposed site for a spent nuclear fuel repository in Forsmark, Sweden</b></p>	<p>Thorsten Agemar   <b>Next Generation of Interoperable Information Systems for Spatial Data</b></p>	13:00
		<p><i>Mara Iris Lönart, Jean-Yves Colle, Philipp Pöml, Jérôme Himbert, Dario Manara, Thorsten Geisler, Boris Burakov</i>   <b>First in situ and real time observation of the alteration behaviour of Chernobyl “lava” studied by fluid-cell Raman spectroscopy</b></p>	<p>Bernadette Fritzsche   <b>Research software - landscape and actors</b></p>	13:15
<p>A.L. Peace, J.J.J. Phethean, D. Franke, G.R. Foulger, T. Doré, N. Kuszniir, J.G. McHone, S. Rocchi, C. Schiffer, M. Schnabel, J.K. Welford   <b>What geology tells about the role of mantle plumes in Pangea dispersal</b></p>	<p><i>Tobias Fritschle, Martin Salamon, Martin Arndt, Thomas Oswald</i>   <b>Deep Geothermal Energy Potential at Weisweiler, Germany: 3D-Modelling of Subsurface Mid-Palaeozoic Carbonate Reservoirs</b></p>		<p>Andreas Hübner, Kirsten Elger, Roland Bertelmann   <b>Promoting cultural change in data publishing</b></p>	13:30
<p>Martin Reyes Correa, Jonas Kley   <b>New constraints on the evolution of Mesozoic rifting in the Eastern Cordillera of Colombia</b></p>	<p><i>Martin Salamon, Martin Arndt, Tobias Fritschle, thomas Oswald</i>   <b>Geothermal potential of Dinan-tian carbonates in the subsurface of North Rhine-Westphalia, Germany</b></p>		<p>Edzer Pebesma, Daniel Nue-st, <i>Markus Konkol</i>, Christian Kray   <b>Computational reproducibility in the geoscientific publication cycle</b></p>	13:45
<p><i>René H.W. Romer, Christoph Beier, Karsten M. Haase</i>   <b>The evolution of intraplate volcanoes in extensional tectonic environments: constraints from João de Castro Seamount, Azores</b></p>	<p><i>Adrian Linsel, Sebastian Weinert, Kristian Bär, Matthias Hinderer</i>   <b>Thermo-Hydraulic Heterogeneity Assessment Across First-Order Hiatal Surfaces – A Case Study from the Post-Variscan Nonconformity</b></p>			14:00
<p><i>Mischa Böhnke, Felix Genske, Andreas Stracke</i>   <b>Geochemical and isotopic characterization of single olivine-hosted melt inclusions</b></p>	<p><i>Michaela Aehnelt, Cindy Kunkel, Dieter Pudlo, Reinhard Gaupp, Kai Uwe Totsche</i>   <b>Towards a better understanding of the central German Buntsandstein aquifer system: Combined study of petrological, facial and petrophysical observations</b></p>			14:15

Sessions to be continued ...

# Detailed programme Wednesday, 25 September 2019

	H2	H3	H4	Castle S8
	<b>2c): Planetary Accretion and Impact Processes</b> <i>Chairs: Thomas Haber &amp; Gregory Jude Archer &amp; Emily Anne Worsham</i>	<b>7b)-2: Sediment generation and quantitative provenance analysis</b> <i>Chair: Guido Meinhold</i>	<b>6a): Metamorphic processes</b> <i>Chairs: Michael Bröcker &amp; Reiner Klemm</i>	<b>12d): Reuse Potential of Mining Residues</b> <i>Chairs: Jeannette Meima &amp; Malte Drobe</i>
14:30	<u>Jan L. Hellmann</u> , Timo Hopp, Christoph Burkhardt, Thorsten Kleine   <b>Tellurium stable isotopic constraints on the nature of late accretion</b>	<u>Heinrich Bahlburg</u> , Udo Zimmermann, Jasper Berndt, Axel Gerdes   <b>The missing link of Rodinia break up in western South America: A zircon U-Pb and Hf isotope study of the volcanosedimentary Chilla beds (Altiplano, Bolivia)</b>	<u>Jörn H. Kruhl</u> , Richard Wirth, Luiz F.G. Morales, Elnaz Raghani, Christoph Schrank, Wolfgang Schmahl, Anja Schreiber   <b>Grain and phase boundaries in rocks of the upper crust and at the earth's surface</b>	<u>Ruiyong Zhang</u> , Sabrina Hedrich, Felix Römer, Axel Schippers   <b>Bioleaching of Cu/Co-rich mine tailings from the polymetallic Rammelsberg mine, Germany</b>
14:45	Gerhard Schmidt   <b>Re-investigation of specific impactor compositions from terrestrial impact craters (Clearwater East, Brent, Wanapitei, Greenland, Popigai, Rochechouart, Boltsh)</b>			<u>Heike Bostelmann</u> , Gordon Southam   <b>Microbe-mineral interactions during chalcopyrite bioleaching</b>
15:00	<b>Closing Ceremony</b>   Castle Aula			

## Poster exhibition

Posters will be presented at the tent in front of the Castle. The poster exhibition has been divided in 2 poster socials:

Monday, 23 Sept., 16:30-18:00, Sessions: 1 | 2a | 2b | 2e | 4d | 4e | 5b | 5g | 5h | 6b | 6c | 7a | 7d | 8b | 9 | 10a | 10b | 12a | 12b | 13a | 13c | 13d

Tuesday, 24 Sept., 17:30-18:30, Sessions 2c | 2d | 3b | 3c | 4a | 4g | 5a | 5c | 5d | 5e | 5f | 6a | 7b | 7c | 8a | 8c | 11 | 12c | 12d | 13e | 13f

Each poster should be the size of the upright German DIN A0-format which equates to 841 mm width x 1,189 mm height (33.11 in x 46.81 in).

Please note that the organizers are not able to provide printout of posters.

Please mount your poster to your assigned poster board latest during the morning coffee break on the day of your presentation. Mounting material will be provided at the registration desk. Please make sure to remove your poster directly after the poster session.

POSTER AWARDS: Three best posters of (PhD) students will be selected by a jury and awarded. The selected posters will be awarded during the Closing Ceremony on Wednesday, September 25.





Castle S10	Schlossplatz 7 Hof: SP 7	Schlossplatz 4 SP 4 201	Vom-Stein-Haus VSH 219 Aula
<p><b>5c): Intraplate volcanism, mantle plumes and continental breakup</b> Chairs: <i>Stephan Homrighausen &amp; Guillaume Jacques</i></p>	<p><b>8a): Geological and hydro-geological characterisation of reservoir rocks</b> Chairs: <i>Patricia Göbel &amp; Matthias Hinderer &amp; Maria-Theresia Schafmeister</i></p>	<p><b>8c)-2: Geosciences and safe nuclear waste disposal – current status and future directions</b> Chairs: <i>Axel Liebscher &amp; Fabien Magri</i></p>	<p><b>13f)-2: Research data and software management in times of FAIR and Open Data</b> Chair: <i>Andreas Hübner &amp; Dirk Fleischer</i></p>
<p><u>Yannick Bussweiler</u>, Alexey Kargin   <b>Formation of Megacryst Phases by Interaction of Aillikite Melts with Lithospheric Mantle–Evidence from HP-HT Experiments and Natural Samples from the Arkhangelsk Province, Russia</b></p>	<p><u>Roberto Pierau</u>, Sandra Schumacher, Robert Schöner   <b>Log derived permeability estimation of Valanginian (Lower Cretaceous) sandstone units of the Lower Saxony Basin</b></p>		14:30
<p><u>Tobias Grützner</u>, Yannick Bussweiler, Jasper Berndt, Stephan Klemme, Dejan Prelević   <b>Experimental melting of mixed Iherzolite + kaersutite-rich metasome in the garnet stability field</b></p>	<p><u>Martin Elsner</u>, Achim Schubert   <b>Thickness distribution and sequence stratigraphy of the late Jurassic Malm reservoir in Bavaria: implications for geothermal exploration</b></p>		14:45
			15:00

# List of posters

by sessions in alphabetical order of presenters' family names

Monday, 23 Sept., 16:30-18:00, Sessions: 1 | 2a | 2b | 2e | 4d | 4e | 5b | 5g | 5h | 6b | 6c | 7a | 7d | 8b | 9 | 10a | 10b | 12a | 12b | 13a | 13c | 13d

**Mon: 1 | 1a) The Present is the Key to the Past – Reconstructing Early Earth Environments through Modern Analogues**

**Surviving the ferruginous Archean ocean – Assessing the potential toxicity of Fe<sup>2+</sup> on basal Cyanobacteria in anaerobic conditions.**

Herrmann, Achim Jan; Gehringer, Michelle M.

*Technische Universität Kaiserslautern, Germany*

**Mon: 2 | 1a) The Present is the Key to the Past – Reconstructing Early Earth Environments through Modern Analogues**

**Triple oxygen isotope study of manganese formations as a proxy for the triple oxygen isotope composition of Precambrian air O<sub>2</sub>**

Sengupta, Sukanya<sup>1</sup>; Pack, Andreas<sup>1</sup>; Viehmann, Sebastian<sup>2</sup>

<sup>1</sup>Department of Isotope Geology, Georg-August-Universität-Göttingen, Germany; <sup>2</sup>Department of Geodynamics und Sedimentology, Universität Wien, Austria

**Mon: 3 | 2a) Petrology, volcanism and surface processes on terrestrial bodies**

**Formation of sulfide phases on the surface of Mercury by reactions with reducing high temperature gases**

Renggli, Christian J.<sup>1</sup>; Klemme, Stephan<sup>1</sup>; Morlok, Andreas<sup>2</sup>; Weber, Iris<sup>2</sup>; Hiesinger, Harald<sup>2</sup>

<sup>1</sup>Institut für Mineralogie, Universität Münster, Germany; <sup>2</sup>Institut für Planetologie, Universität Münster, Germany

**Mon: 4 | 2a) Petrology, volcanism and surface processes on terrestrial bodies**

**Excimer Laser Experiments on Mixed Silicates Simulating Space Weathering**

Weber, Iris<sup>1</sup>; Morlok, Andreas<sup>1</sup>; Heeger, Marcel<sup>1</sup>; Adolphs, Thorsten<sup>2</sup>; Reitze, Maximilian P.<sup>1</sup>; Harald, Hiesinger<sup>1</sup>; Bauch, Karin E.<sup>1</sup>; Stojic, Aleksandra N.<sup>1</sup>; Arlinghaus, Heinrich F.<sup>2</sup>; Helbert, Jörn<sup>3</sup>

<sup>1</sup>Westfälische Wilhelms Universität, Institut für Planetologie, 48149 Münster, Germany; <sup>2</sup>WWU, Physikalisches Institut, 48149 Münster, Germany; <sup>3</sup>DLR, Institut für Planetenforschung, 12489 Berlin, Germany

**Mon: 5 | 2a) Petrology, volcanism and surface processes on terrestrial bodies**

**Mineralogy of the weigelt-scholle**

Winkler, Patrick

*Martin-Luther-Universität, Germany*

**Mon: 6 | 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples**

**Modal abundances of coarse-grained (>5 µm) components within CI-chondrites and their individual clasts**

Alfing, Julian<sup>1,2</sup>; Patzek, Markus<sup>1</sup>; Bischoff, Addi<sup>1</sup>

<sup>1</sup>Institut für Planetologie, Westfälische Wilhelms-Universität Münster, Wilhelm-Klemm Str. 10, D-48149 Münster, Germany; <sup>2</sup>Institut für Mineralogie, Westfälische Wilhelms-Universität Münster, Corrensstr. 24, D-48149 Münster, Germany

**Mon: 7 | 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples**

**SORTED STONE CIRCLES ON SVALBARD – AN ANALOG STUDY FOR MARS**

Buer, Sandra<sup>1</sup>; Hiesinger, Harald<sup>1</sup>; Reiss, Dennis<sup>1</sup>; Hauber, Ernst<sup>2</sup>; Johnsson, Andreas<sup>3</sup>; Bernhardt, Hannes<sup>4</sup>

<sup>1</sup>Institut für Planetologie, Westfälische Wilhelms-Universität, Wilhelm-Klemm-Str. 10, 48149 Münster, Germany; <sup>2</sup>DLR-Institut für Planetenforschung, Rutherfordstr. 2, 12489 Berlin, Germany; <sup>3</sup>Univ. of Gothenburg, Box 100 SE-405 30 Gothenburg, Sweden; <sup>4</sup>Arizona State University, School of Earth and Space Exploration, 550 East Tyler Mall Bateman Physical Sciences Center F-Wing Room F506 Tempe, AZ 85287-1404, USA

**Mon: 8 | 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples**

**The Multi-Temporal Database of Planetary Image Data (MUTED): A Web-Based Tool to Study Surface Changes and Processes on Dynamic Mars**

Hever, Thomas<sup>1</sup>; Hiesinger, Harald<sup>1</sup>; Reiss, Dennis<sup>1</sup>; Raack, Jan<sup>1</sup>; Jaumann, Ralf<sup>2</sup>

<sup>1</sup>Institut für Planetologie, Westfälische Wilhelms-Universität, Münster, Germany; <sup>2</sup>German Aerospace Center (DLR), Berlin, Germany

**Mon: 9 | 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples**

**Classification Of 13 Cm Chondrite Breccias**

Lentfort, Sarah; Bischoff, Addi; Ebert, Samuel

*WWU Münster, Germany*

**Mon: 10 | 2b) High-spatial resolution studies of small-scale and complex extraterrestrial and terrestrial samples**

**A Chondrule Formation Experiment Aboard the ISS: Experimental Set-up and Test Experiments**

Spahr, Dominik<sup>1</sup>; Koch, Tamara E.<sup>1</sup>; Merges, David<sup>1</sup>; Beck, Anna A.<sup>1</sup>; Christ, Oliver<sup>1</sup>; Fujita, Shintaro<sup>2</sup>; Genzel, Philomena-T.<sup>1</sup>; Kerschler, Jochen<sup>2</sup>; Lindner, Miles<sup>1</sup>; Menderos-Leber, Diego<sup>1</sup>; Wilde, Fabian<sup>3</sup>; Morgenroth, Wolfgang<sup>1</sup>; Brenker, Frank E.<sup>1</sup>; Winkler, Björn<sup>1</sup>

<sup>1</sup>Goethe University Frankfurt, Germany; <sup>2</sup>HackerSpace FFM e. V., Oberursel, Germany; <sup>3</sup>Helmholtz-Zentrum Geesthacht, HZG Outstation at DESY in Hamburg, Hamburg, Germany

**Mon: 11 | 2e) Recent advances in lunar science**

**Exploration of Icelandic lava caves and extrapolation to a semi-permanent Lunar habitat**

Daeter, Marjolain<sup>1</sup>; Heemskerk, Marc<sup>1</sup>; Foing, Bernard<sup>1,2,3</sup>

<sup>1</sup>VU Amsterdam, The Netherlands; <sup>2</sup>ESTEC, ESA; <sup>3</sup>ILEWG/EuroMoonMars

**Mon: 12 | 2e) Recent advances in lunar science**

**The ESA-JAXA-CSA-NASA Joint Study HERACLES on Returning to the Moon**

Hiesinger, Harald<sup>1</sup>; Landgraf, Markus<sup>2</sup>; Carey, William<sup>2</sup>; Karouji, Yuzuru<sup>3</sup>; Haltigin, Tim<sup>4</sup>; Osinski, Gordon<sup>5</sup>; Mall, Urs<sup>6</sup>; Hashizume, Ko<sup>7</sup>

<sup>1</sup>Westfälische Wilhelms-Universität Münster, Germany; <sup>2</sup>European Space Agency (ESA), Directorate of Human Spaceflight and Robotic Exploration Programmes; <sup>3</sup>Japan Aerospace Exploration Agency (JAXA), Space Exploration System Technology Unit; <sup>4</sup>Canadian Space Agency (CSA); <sup>5</sup>University of Western Ontario, Centre for Planetary Science and Exploration; <sup>6</sup>Max-Planck Institut für Sonnensystemforschung; <sup>7</sup>Ibaraki University, Dept. of Earth Science

**Mon: 13 | 2e) Recent advances in lunar science**

**Geology and ages of the landing sites: Apollo 11, Apollo 12 and Apollo 17**

lqbal, Wajih; Hiesinger, Harald; van der Bogert, Carolyn

*Institut für Planetologie, Westfälische Wilhelms-Universität Münster, Germany*



**Mon: 14 | 2e) Recent advances in lunar science**

**Mare Moscoviense: A site for future lunar missions**

Mikolajewski, Sascha; Hiesinger, Harald; van der Bogert, Carolyn H.

*Institut für Planetologie, Westfälische Wilhelms-Universität Münster, Wilhelm-Klemm-Str. 10, 48149 Münster, Germany*

**Mon: 15 | 2e) Recent advances in lunar science**

**Lunar gravity: Impact processes inform the density structure of the mare crust**

Neumann, Gregory A.<sup>1</sup>; Goossens, Sander J.<sup>2</sup>; Deutsch, Ariel N.<sup>3</sup>; Head, James W.<sup>3</sup>

<sup>1</sup>Solar System Exploration Division, NASA Goddard, Greenbelt, MD, United States of America; <sup>2</sup>CRESST, University of Maryland Baltimore County, USA;

<sup>3</sup>Department of Earth, Environmental and Planetary Sciences, Brown University, Providence, RI, USA

**Mon: 16 | 2e) Recent advances in lunar science**

**Geological Mapping of the South Pole-Aitken Basin - A Progress Report**

Pöhler, Claudia<sup>1</sup>; Hiesinger, Harald<sup>1</sup>; Ivanov, Mikhail A.<sup>2</sup>; Rueckert, Cedric<sup>1</sup>; van der Bogert, Carolyn H.<sup>1</sup>

<sup>1</sup>WWU Münster, Germany; <sup>2</sup>Vernadsky Institute, RAS, Russia

**Mon: 17 | 4d) Latest Achievements in Scientific Ocean and Continental Drilling**

**Feather feature orientations in shocked granitic rocks of the Chicxulub crater: Implications for the formation of peak rings**

Ebert, Matthias; Poelchau, Michael; Kenkmann, Thomas

*Albert-Ludwigs-Universität Freiburg, Department of Geology, Germany*

**Mon: 18 | 4d) Latest Achievements in Scientific Ocean and Continental Drilling**

**Deep Lake Sediment Sampling on Lake Constance using Hipercoreg**

Harms, Ulrich<sup>1</sup>; Raschke, Ulli<sup>2</sup>; Schwalb, Antje<sup>2</sup>; Wittig, Volker<sup>3</sup>; Wonik, Thomas<sup>4</sup>; Wessels, Martin<sup>5</sup>

<sup>1</sup>GFZ - German Research Centre for Geosciences, Telegrafenberg, 14473 Potsdam, Germany; <sup>2</sup>Institute of Geosystems und Bioindikation, Technische Universität Braunschweig, Langer Kamp 19c, 38106 Braunschweig, Germany; <sup>3</sup>International Geothermal Centre, Hochschule Bochum, Lennerhofstraße 140, 44801 Bochum, Germany; <sup>4</sup>Leibniz-Institut für Angewandte Geophysik, Stilleweg 2, 30655 Hannover, Germany; <sup>5</sup>Institut für Seenforschung der LUBW, Argenweg 50, 88085 Langenargen, Germany

**Mon: 19 | 4e) Archives of environmental changes throughout Earth history**

**The distribution of rare earth elements and yttrium (REY) between the truly dissolved, nanoparticulate/colloidal and suspended loads during high and low discharge in the Kalix and Råne Rivers, Northern Sweden**

Weimar, Nadine Elisabeth<sup>1</sup>; Schmidt, Katja<sup>1,2</sup>; Kurahashi, Erika<sup>3</sup>; Bau, Michael<sup>1</sup>

<sup>1</sup>Jacobs University Bremen, Germany; <sup>2</sup>BGR, Marine Resource Exploration, Hannover, Germany

**Mon: 20 | 4e) Archives of environmental changes throughout Earth history**

**Calcification, skeletal structure and composition of the cold-water coral *Desmophyllum dianthus***

Beck, Kristina K.<sup>1,2</sup>; Steinhöfel, Grit<sup>1</sup>; Laudien, Jürgen<sup>1</sup>; Nehrke, Gernot<sup>1</sup>; Wall, Marlene<sup>3</sup>; Fietzke, Jan<sup>3</sup>; Richter, Claudio<sup>1,2</sup>; Schmidt-Grieb, Gertraud M.<sup>1</sup>

<sup>1</sup>Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany; <sup>2</sup>University of Bremen, Bremen, Germany; <sup>3</sup>GEO-MAR Helmholtz Centre for Ocean Research, Kiel, Germany

**Mon: 21 | 4e) Archives of environmental changes throughout Earth history**

**The relation between  $\delta^{17}O$  and bodymass for bioapatite**

Feng, Dingsu; Pack, Andreas

*Georg-August-Universität Göttingen, Abteilung Isotopengeologie, Geowissenschaftliches Zentrum, Goldschmidtstraße 1, 37077 Göttingen, Germany*

**Mon: 22 | 4e) Archives of environmental changes throughout Earth history**

**Palynofacies as an indicator for transgressive-regressive trends in offshore marine mudstones – a critical evaluation**

Thöle, Hauke<sup>1,2</sup>; Heimhofer, Ulrich<sup>1</sup>; Bornemann, Andre<sup>2</sup>; Erbacher, Jochen<sup>2,3</sup>

<sup>1</sup>Leibniz Universität Hannover, Germany; <sup>2</sup>Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Hannover, Germany; <sup>3</sup>Landesamt für Bergbau, Energie und Geologie (LBEG), Hannover, Germany

**Mon: 23 | 4e) Archives of environmental changes throughout Earth history**

**Distribution patterns of some 'rhenotypic' faunal elements related to a sea-level rise during the Emsian/Eifelian transition in the eastern Rhenish Massif (Sauerland and Bergisches Land).**

Zoppe, Simon Felix

*Goethe-Universität, Institut für Geowissenschaften, Altenhöferallee 1, 60438 Frankfurt am Main, Germany*

**Mon: 24 | 5b) Volcanic geology**

**Alkaline volcanism on Patmos (Aegean Sea) – constraints from new radiogenic isotope data and  $40Ar/39Ar$  dating**

Boehm, Katharina; Kuiper, Klaudia; Vroon, Pieter; Wijbrans, Jan

*Department of Earth Sciences, Faculty of Science, VU University Amsterdam, De Boelelaan 1085, 1081 HV Amsterdam*

**Mon: 25 | 5b) Volcanic geology**

**The Pliocene pyroclastic succession of Ani, Armenian-Turkish border: geochronology, geochemistry and paleomagnetic constraints**

Gevorgyan, Hripsime<sup>1,2</sup>; Kirscher, Uwe<sup>3</sup>; Breitzkreuz, Christoph<sup>1</sup>; Meliksetian, Khachatur<sup>2</sup>; Israyelyan, Arsen<sup>2</sup>; Bachtadse, Valerian<sup>4</sup>; Miggins, Daniel<sup>5</sup>; Koppers, Anthony<sup>5</sup>

<sup>1</sup>Institute of Geology, TU Bergakademie Freiberg, Bernhard-von-Cotta-Straße 2, 09599 Freiberg, Germany; <sup>2</sup>Institute of Geological Sciences, National Academy of Sciences of Armenia, Marshal Baghramyan Avenue, Yerevan 0019, Armenia; <sup>3</sup>Terrestrische Paleoklimatologie, Department of Geosciences, Eberhard Karls University Tuebingen, Sigwartstr. 10, 72076 Tuebingen, Germany; <sup>4</sup>Department of Earth and Environmental Sciences, Geophysics, Munich University, Theresienstr. 41, 80333 Munich, Germany; <sup>5</sup>College of Earth, Ocean, and Atmospheric Science, Oregon State University, Corvallis, OR, USA

**Mon: 26 | 5h) Processes and timescales in the evolution of transcrustal magma systems**

**Geodynamic constraints on the initiation of mélangé diapirs from subducting slabs**

Berlie, Nicolas<sup>1</sup>; Kaus, Boris<sup>1</sup>; Marschall, Horst R.<sup>2</sup>

<sup>1</sup>Johannes Gutenberg University Mainz, Germany; <sup>2</sup>Goethe University, Frankfurt am Main, Germany

# List of posters

Mon: 27 | 5h) Processes and timescales in the evolution of transcrustal magma systems

## **Times of magma ascent and residence reflected in Mg/Fe and Ni diffusion in olivine from arc lavas in Kamchatka**

Churikova, Tatiana<sup>1,2</sup>; Gordeychik, Boris<sup>1,3</sup>; Wörner, Gerhard<sup>1</sup>; Kronz, Andreas<sup>1</sup>; Pevzner, Maria<sup>4</sup>; Muravyev, Yaroslav<sup>2</sup>; Belousov, Alexander<sup>2</sup>; Dirksen, Oleg<sup>2</sup>

<sup>1</sup>Geowissenschaftliches Zentrum Göttingen, Abteilung Geochemie, Georg-August-Universität Göttingen, Göttingen, Germany; <sup>2</sup>Institute of Volcanology and Seismology FEB RAS, Petropavlovsk-Kamchatsky, Russia; <sup>3</sup>Institute of Experimental Mineralogy RAS, Chernogolovka, Russia; <sup>4</sup>Geological Institute RAS, Moscow, Russia

Mon: 28 | 5h) Processes and timescales in the evolution of transcrustal magma systems

## **Variations of Fo and Ni in the centres of olivine cores reflect processes of crystallization and diffusion**

Gordeychik, Boris<sup>1,2</sup>; Churikova, Tatiana<sup>1,3</sup>; Simakin, Alexander<sup>2,4</sup>; Shea, Thomas<sup>5</sup>; Wörner, Gerhard<sup>1</sup>

<sup>1</sup>Geowissenschaftliches Zentrum Göttingen, Abteilung Geochemie, Georg-August-Universität Göttingen, Göttingen, Germany; <sup>2</sup>Institute of Experimental Mineralogy RAS, Chernogolovka, Russia; <sup>3</sup>Institute of Volcanology and Seismology FEB RAS, Petropavlovsk-Kamchatsky, Russia; <sup>4</sup>Institute of Earth Physics RAS, Moscow, Russia; <sup>5</sup>Department of Geology and Geophysics, University of Hawai'i, Honolulu, USA

Mon: 29 | 5h) Processes and timescales in the evolution of transcrustal magma systems

## **Divergent compositional domains in the shallow plume mantle beneath the West Eifel volcanic field, W Germany**

Kaufmann, Andreas B.<sup>1</sup>; Galer, Stephen J. G.<sup>2</sup>; Mertz, Dieter F.<sup>1</sup>

<sup>1</sup>Institute for Geosciences, University of Mainz, Germany; <sup>2</sup>Max Planck Institute for Chemistry Mainz, Germany

Mon: 30 | 5h) Processes and timescales in the evolution of transcrustal magma systems

## **U/Th disequilibrium dating of Late Quaternary perovskite**

Sun, Yi; Schmitt, Axel Karl

Heidelberg University, Germany

Mon: 31 | 6b) Reaction and deformation

## **The role of chemically induced stresses in the mechanisms of element exchange between minerals – an experimental study based on pyroxenes**

Primocerio, Jennifer<sup>1</sup>; Chakraborty, Sumit<sup>1</sup>; Marquardt, Katharina<sup>2</sup>; Fockenberg, Thomas<sup>1</sup>

<sup>1</sup>Ruhr-Universität Bochum, Germany; <sup>2</sup>Imperial College London, UK

Mon: 32 | 6b) Reaction and deformation

## **Magnetic and microstructural fatigue of a magnetite-quartz rock**

Reznik, Boris; Fuchs, Helena; Kontny, Agnes; Schilling, Frank

KIT - Karlsruhe Institute of Technology, Germany

Mon: 33 | 6b) Reaction and deformation

## **Episodic deformation and metamorphic reactions at decreasing distances to the tip of a seismic active fault zone – the record of mylonites from the DAV, Eastern Alps**

Trepmann, Claudia A.<sup>1</sup>; Hentschel, Felix<sup>1</sup>; Janots, Emilie<sup>2</sup>

<sup>1</sup>Ludwig-Maximilians University Munich, Germany; <sup>2</sup>University Grenoble, ISTerre, France

Mon: 34 | 6c) Fluid-rock interaction: from mechanisms to rates – from atoms to plates

## **Chemical controls of the aqueous environment on mineral growth and dissolution**

King, Helen E

Utrecht University, Netherlands, The

Mon: 35 | 6c) Fluid-rock interaction: from mechanisms to rates – from atoms to plates

## **Tectonometamorphic and hydraulic processes along a fossil subduction plate interface in the northern Mirdita Ophiolites (Bajram Curri, Albania)**

Richter, Madeline<sup>1</sup>; Löwe, Georg<sup>1</sup>; Onuzi, Kujtim<sup>2</sup>; Ustaszewski, Kamil<sup>1</sup>

<sup>1</sup>University Jena, Germany; <sup>2</sup>Polytechnic University of Tirana, Institute of GeoSciences, Tiranë, Albania

Mon: 36 | 6c) Fluid-rock interaction: from mechanisms to rates – from atoms to plates

## **Sulfide mineralogy as a tracer for fluid-rock interaction in serpentinites**

Schwarzenbach, Esther Martin<sup>1</sup>; Rohne, Roxana<sup>2</sup>; Plümper, Oliver<sup>2</sup>

<sup>1</sup>Freie Universität Berlin, Germany; <sup>2</sup>Utrecht University, Utrecht, The Netherlands

Mon: 37 | 6c) Fluid-rock interaction: from mechanisms to rates – from atoms to plates

## **Solubility of forsterite, enstatite and magnesite in redox-buffered high-pressure COH fluids**

Tiraboschi, Carla<sup>1</sup>; Tumiati, Simone<sup>2</sup>; Sverjensky, Dimitri<sup>3</sup>; Pettke, Thomas<sup>4</sup>; Ulmer, Peter<sup>5</sup>; Poli, Stefano<sup>2</sup>

<sup>1</sup>WWU Münster, Germany; <sup>2</sup>University of Milan, Italy; <sup>3</sup>Johns Hopkins University, USA; <sup>4</sup>University of Bern, Switzerland; <sup>5</sup>ETH Zürich, Switzerland

Mon: 38 | 7a) Quaternary Geochronology

## **A constant slip rate for the western Qilian Shan frontal thrust during the last 200 ka consistent with GPS-derived and geological shortening rates**

Hetzl, Ralf<sup>1</sup>; Hampel, Andrea<sup>2</sup>; Gebbeken, Pia<sup>1</sup>; Xu, Qiang<sup>3</sup>; Gold, Ryan D.<sup>4</sup>

<sup>1</sup>Institut für Geologie und Paläontologie, WWU Münster, Germany; <sup>2</sup>Institut für Geologie, Leibniz Universität Hannover, Germany; <sup>3</sup>Institute of Tibetan Plateau Research, Beijing, China; <sup>4</sup>Geologic Hazards Science Center, U.S. Geological Survey, Golden, Colorado, USA

Mon: 39 | 7a) Quaternary Geochronology

## **Spatial patterns of erosion and landscape evolution in a bivertent metamorphic core complex revealed by cosmogenic <sup>10</sup>Be: The central Menderes Massif (Western Turkey)**

Heineke, Caroline<sup>1</sup>; Hetzl, Ralf<sup>1</sup>; Nilius, Nils-Peter<sup>2</sup>; Glotzbach, Christoph<sup>3</sup>; Akal, Cüneyt<sup>4</sup>; Christl, Marcus<sup>5</sup>; Hampel, Andrea<sup>2</sup>

<sup>1</sup>WWU Münster, Germany; <sup>2</sup>Leibniz Universität Hannover, Germany; <sup>3</sup>Universität Tübingen, Germany; <sup>4</sup>Dokuz Eylül University Izmir, Turkey; <sup>5</sup>ETH Zürich, Switzerland

Mon: 40 | 7a) Quaternary Geochronology

## **A global geomagnetic field reconstruction of the past 100 ka**

Panovska, Sanja<sup>1</sup>; Korte, Monika<sup>1</sup>; Constable, Catherine<sup>2</sup>

<sup>1</sup>GFZ German Research Centre for Geosciences Potsdam, Germany; <sup>2</sup>University of California San Diego, Scripps Institution of Oceanography, USA



Mon: 41 | 7a) Quaternary Geochronology

**An engineering geomorphologic characterization of the Kaju River near Qasr-e-qand city**

Sotoudeh, Mahdiyeh<sup>1</sup>; Rahnamarad, Jafar<sup>1</sup>; Keykha, Amir Hamzeh<sup>2</sup>; Shabanigoraji, Kazem<sup>1</sup>

<sup>1</sup>Department of Geology, Zahedan Branch, Islamic Azad University, Zahedan, Iran,; <sup>2</sup>Department of Civil Engineering, Zahedan Branch, Islamic Azad University, Zahedan, Iran,

Mon: 42 | 7a) Quaternary Geochronology

**Glacial evolution using <sup>36</sup>Cl moraine dating in the Krnica Valley, Julian Alps, Slovenia**

Steven, Ron<sup>1</sup>; Mechernich, Silke<sup>1,2</sup>; Binnie, Ariane<sup>1</sup>; Zebre, Manja<sup>3</sup>; Colucci, Roberto R.<sup>4</sup>; Jez, Jerney<sup>5</sup>; Jamsek Rupnik, Petra<sup>5</sup>

<sup>1</sup>Institute of Geology and Mineralogy, University of Cologne, Germany; <sup>2</sup>Federal Institute of Hydrology, Germany; <sup>3</sup>Department of Geography and Earth Sciences, Aberystwyth University, UK; <sup>4</sup>Department of Earth System Sciences and Environmental Technology, ISMAR Trieste – CNR, Italy; <sup>5</sup>Geological Survey of Slovenia, Ljubljana, Slovenia

Mon: 43 | 7a) Quaternary Geochronology

**The evolution of low relief landscapes in the Eastern Alps constrained by a multi-system approach**

Wölfler, Andreas<sup>1</sup>; Glotzbach, Christoph<sup>2</sup>; Hampel, Andrea<sup>1</sup>; Dunkl, István<sup>3</sup>

<sup>1</sup>Institute for Geology, Leibniz Universität Hannover, Callinstraße 30, 30167 Hannover, Germany; <sup>2</sup>Department for Geology and Geodynamics, Universität Tübingen, Wilhelmstraße 56, 72074 Tübingen, Germany; <sup>3</sup>Geoscience Center, Sedimentology and Environment Geology, Universität Göttingen, Goldschmidstraße 3, 37077 Göttingen, Germany

Mon: 44 | 7a) Quaternary Geochronology

**Quantifying river incision into low-relief surfaces using local and catchment-wide <sup>10</sup>Be denudation rates**

Wolff, Reinhard<sup>1</sup>; Hetzel, Ralf<sup>1</sup>; Strobl, Marcus<sup>2</sup>

<sup>1</sup>Institut für Geologie und Paläontologie, Westfälische Wilhelms-Universität Münster, Corrensstr. 24, D-48149 Münster, Germany; <sup>2</sup>Steinbuch Centre for Computing, Karlsruhe Institute of Technology, Hermann-von-Helmholtz-Platz 1, D-76344 Eggenstein-Leopoldshafen, Germany

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**Biological and lithological controls on Mg isotope fractionation in a forested watershed (the Black Forest, Germany)**

Cai, Di<sup>1</sup>; Uhlig, David<sup>2</sup>; Henahan, Michael J.<sup>1</sup>; Frick, Daniel A.<sup>1</sup>; von Blanckenburg, Friedhelm<sup>1</sup>

<sup>1</sup>GFZ German Research Centre for Geosciences, Section 3.3 Earth Surface Geochemistry, Telegrafenberg, D-14473 Potsdam, Germany; <sup>2</sup>Institute of Bio- and Geosciences (IBG-3) Agrosphere, Forschungszentrum Jülich, Wilhelm Johnen Str., 52425 Jülich, Germany

Mon: 46 | 7d) The stable isotope toolbox in sedimentary systems

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Eroglu, Sümeyya<sup>1</sup>; Salvatucci, Renato<sup>2</sup>; Scholz, Florian<sup>1</sup>; Siebert, Christopher<sup>1</sup>; Schneider, Ralph<sup>2</sup>; Frank, Martin<sup>1</sup>

<sup>1</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel, Wischhofstraße 1-3, 24148 Kiel, Germany; <sup>2</sup>Institute of Geosciences, University of Kiel, Ludewig-Meyn-Straße 10, 24118 Kiel, Germany

Mon: 47 | 7d) The stable isotope toolbox in sedimentary systems

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Steinhoefel, Grit; Beck, Kristina; Benthien, Albert; Richter, Klaus-Uwe; Schmidt-Grieb, Gertraud M.; Bijma, Jelle

AWI Bremerhaven, Germany

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Zeng, Lingqi<sup>1</sup>; Ruge, Dag<sup>1</sup>; Berger, Günther<sup>2</sup>; Heck, Karin<sup>3</sup>; Hölzl, Stefan<sup>3</sup>; Reimer, Andreas<sup>1</sup>; Jung, Dietmar<sup>4</sup>; Arp, Gernot<sup>1</sup>

<sup>1</sup>Geoscience Center, Universität Göttingen, Germany; <sup>2</sup>Sudetenstraße 6, Pleinfeld, Germany; <sup>3</sup>RiesKraterMuseum, Nördlingen, Germany; <sup>4</sup>Geological Survey, Bavarian Environment Agency, Hof/Saale, Germany

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Heidinger, Michael<sup>1</sup>; Mueller, Peter<sup>2</sup>; Zappala, Jake<sup>2</sup>; Purtschert, Roland<sup>3</sup>; Eichinger, Florian<sup>1</sup>; Wirsing, Gunther<sup>4</sup>; Geyer, Tobias<sup>4</sup>; Fritzer, Thomas<sup>5</sup>; Groß, Doris<sup>5</sup>

<sup>1</sup>Hydroisotop GmbH, D; <sup>2</sup>Physics Division, Argonne National Laboratory, USA; <sup>3</sup>Physics Institute, University Bern, CH; <sup>4</sup>State Authority for Geology, Mineral Resources and Mining Baden-Württemberg, D; <sup>5</sup>State Authority for Environment Bayern, D; <sup>6</sup>Department of Applied Geological Sciences and Geophysics Montanuniversität Leoben, A

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**Geothermal potential and thermal energy storage of Buntsandstein and Keuper aquifers in NE Bavaria**

Kunkel, Cindy<sup>1</sup>; Agemar, Thorsten<sup>1</sup>; Stober, Ingrid<sup>2</sup>

<sup>1</sup>Leibniz Institute for Applied Geophysics (LIAG), Stilleweg 2, 30655 Hannover; <sup>2</sup>University Freiburg, Albertstr. 23b, 79104 Freiburg

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Weyand, Torben; Larue, Jürgen

Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

Mon: 52 | 8b) Deep subsurface groundwater systems

**Reactive Reservoir Systems - Crystal Nucleation and Filter Processes in Geothermal Systems**

Zuber, Philipp<sup>1</sup>; Frank, Sascha<sup>2</sup>; Schreuer, Jürgen<sup>1</sup>; Wohnlich, Stefan<sup>2</sup>

<sup>1</sup>Crystallography, Ruhr-University Bochum, Germany; <sup>2</sup>Hydrogeology, Ruhr-University Bochum, Germany

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**Quaternary Tectonics of the Kalabagh fault, Sub Himalayas- insights from field studies, GPR and topographic analysis.**

Abbas, Wahid<sup>1,2</sup>; Ali, Sajid<sup>1,2</sup>; Reichert, Klaus<sup>1</sup>

<sup>1</sup>Neotectonics and Natural Hazards, RWTH Aachen University, Lochnerstr.4-20, 52056 Aachen, Germany.; <sup>2</sup>Department of Earth Sciences, COMSATS University Islamabad, 22060 Abbottabad, Pakistan.



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<sup>1</sup>Institute of Geology and Geochemistry of Petroleum and Coal, RWTH Aachen University, Germany; <sup>2</sup>Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany; <sup>3</sup>Institute for Environmental Research, RWTH Aachen University, Germany; <sup>4</sup>Instituto Dom Luiz, Departamento de Geologia, Faculdade de Ciências, Universidade de Lisboa, Portugal; <sup>5</sup>Institute of Geography, University of Cologne, Germany; <sup>6</sup>Department of Geodynamics, Stratigraphy and Palaeontology, Fac. Geological Sciences, Complutense University of Madrid, Spain; <sup>7</sup>MARUM – Center for Marine Environmental Sciences, University of Bremen, Germany; <sup>8</sup>Institute of Geography, Natural Hazard Research and Geoarchaeology Group, Johannes Gutenberg-Universität Mainz, Germany

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## Calculation for the transport of dust by the wind: from what particle size is this not possible, any longer?

Biermanns, Ludwig

Universität Tuebingen, Germany

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Frenken, Mike<sup>1,2</sup>; Bellanova, Piero<sup>1,2</sup>; Wörner, Madeleine<sup>2</sup>; Bischoff, Verena<sup>2</sup>; Schwarzbauer, Jan<sup>2</sup>; Reicherter, Klaus<sup>1</sup>

<sup>1</sup>Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany; <sup>2</sup>Institute of Geology and Geochemistry of Petroleum and Coal, RWTH Aachen University, Germany

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Kummer, Sabine<sup>1</sup>; Hoffmann, Gösta<sup>1,2</sup>; Martinez, Rosa Enrique<sup>1</sup>; Valdivia Manchego, Mario<sup>1</sup>

<sup>1</sup>University of Bonn, Germany; <sup>2</sup>RWTH Aachen University, Germany

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Stefanski, Johannes<sup>1</sup>; Prescher, Clemens<sup>1,2</sup>; Jahn, Sandro<sup>1</sup>

<sup>1</sup>Universität zu Köln, Germany; <sup>2</sup>DESY Hamburg, Germany

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<sup>1</sup>Bayerisches Geoinstitut (BGI), Universität Bayreuth, Germany; <sup>2</sup>Material Physics and Technology at Extreme Conditions, Laboratory of Crystallography, Universität Bayreuth, Germany; <sup>3</sup>Photon Science, Deutsches Elektronen-Synchrotron, Hamburg, Germany

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Kupenko, Ilya<sup>1</sup>; Sanchez-Valle, C.<sup>1</sup>; Achornor, M.<sup>1</sup>; Krug, M.<sup>1</sup>; Chantel, J.<sup>2</sup>; Ledoux, E.<sup>2</sup>; Ritter, X.<sup>1</sup>; Rigoni, A.<sup>3</sup>; Liermann, H.-P.<sup>4</sup>; Merkel, S.<sup>2</sup>

<sup>1</sup>University of Münster, Germany; <sup>2</sup>Unité Matériaux et Transformations, CNRS, Université de Lille, France; <sup>3</sup>Materialphysik, University of Münster, Germany; <sup>4</sup>Photon Science, DESY, Hamburg, Germany

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## Phase stabilities and elemental redistribution processes between magnesite and mantle silicate at conditions of the lower mantle.

Libon, Léilia<sup>1</sup>; Wilke, Max<sup>1</sup>; Spiekermann, Georg<sup>1</sup>; Appel, Karen<sup>2</sup>; Wunder, Bernd<sup>3</sup>

<sup>1</sup>Universität Potsdam, Germany; <sup>2</sup>European XFEL; <sup>3</sup>Deutsches GeoForschungsZentrum (GFZ)

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Spiekermann, Georg<sup>1</sup>; Pettigirard, Sylvain<sup>2</sup>; Albers, Christian<sup>3</sup>; Gilmore, Keith<sup>4</sup>; Sahle, Christoph J.<sup>5</sup>; Weis, Christopher<sup>3</sup>; Harder, Manuel<sup>6</sup>; Sternemann, Christian<sup>3</sup>; Wilke, Max<sup>1</sup>

<sup>1</sup>Universität Potsdam, Germany; <sup>2</sup>ETH Zürich, Switzerland; <sup>3</sup>TU Dortmund, Germany; <sup>4</sup>Brookhaven National Lab, USA; <sup>5</sup>ESRF Grenoble, France; <sup>6</sup>DESY Hamburg, Germany

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Uenver-Thiele, Laura<sup>1</sup>; Woodland, Alan<sup>1</sup>; Boffa Ballaran, Tiziana<sup>2</sup>; Miyajima, Nobuyoshi<sup>2</sup>

<sup>1</sup>Institut für Geowissenschaften, Universität Frankfurt; <sup>2</sup>Bayerisches Geoinstitut, Bayreuth

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Kolb, Jochen<sup>1</sup>; Bell, Robin-Marie<sup>2</sup>; Vennemann, Torsten<sup>3</sup>; Martin, Laure<sup>4</sup>; Fiorentini, Marco L.<sup>4</sup>; Waight, Tod<sup>5</sup>

<sup>1</sup>Karlsruhe Institute of Technology, Germany; <sup>2</sup>Copenhagen; <sup>3</sup>University of Lausanne; <sup>4</sup>University of Western Australia; <sup>5</sup>University of Copenhagen

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Peters, Stephan; Lowicki, Florian; Beier, Florian; Rechner, Jana; Gorka, Torsten

DMT GmbH & Co. KG, Germany, Essen

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Wittenberg, Antje<sup>1</sup>; de Oliveira, Daniel<sup>2</sup>; Heldal, Tom<sup>3</sup>; González, Francisco Javier<sup>4</sup>; Flindt Jørgensen, Lisbeth<sup>5</sup>

<sup>1</sup>BGR, Germany; <sup>2</sup>LNEG, Portugal; <sup>3</sup>NGU, Norway; <sup>4</sup>IGME, Spain; <sup>5</sup>GEUS, Denmark



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 Obst, Karsten; Brandes, Juliane; [Matting, Sabine](#); Wojatschke, Jasmaria; Deutschmann, Andre  
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[Müller, Franz](#); Kroner, Uwe  
*Technische Universität Bergakademie Freiberg, Germany*
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[Schilling, Maik](#); Jahnke, Christoph; Simon, Andreas; Höding, Thomas  
*Geological Survey of Brandenburg, Germany*
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*BGR - Federal Institute for Geosciences and Natural Resources, Germany*
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*University of Sulaimani, Iraq*
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<sup>1</sup>Museum of Natural History Geneva, Switzerland; <sup>2</sup>Swedish Museum of Natural History, Stockholm, Sweden
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*Geologischer Dienst Nordrhein-Westfalen, Germany*
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*Erdwerk GmbH, Germany*
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*Economic Geology and Petrology Research Unit, Institut of Geosciences and Geography, Germany*
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<sup>1</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany; <sup>2</sup>Institute of Geophysics, Czech Academy of Sciences
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<sup>1</sup>Federal Institute for Geosciences and Natural Resources (BGR), Berlin, Germany; <sup>2</sup>University of Hamburg, Institute of Geophysics, Germany



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*IGM, Rheinische Friedrich-Wilhelms-Universität, Bonn, Germany*

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Vogt, Katharina<sup>1</sup>; Balázs, Attila<sup>2</sup>; Gerya, Taras<sup>3</sup>

<sup>1</sup>International Geothermal Centre, Bochum University of Applied Sciences, Bochum, Germany; <sup>2</sup>Laboratory of Experimental Tectonics, Department of Sciences, Università degli Studi Roma Tre, Rome, Italy; <sup>3</sup>Geophysical Fluid Dynamics Group, Institute of Geophysics, ETH, Zurich, Switzerland

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Luijendijk, Elco<sup>1</sup>; Winter, Theis<sup>1</sup>; von Hagke, Christoph<sup>2</sup>; Ferguson, Grant<sup>3</sup>

<sup>1</sup>University of Göttingen, Germany; <sup>2</sup>RWTH Aachen, Germany; <sup>3</sup>University of Saskatchewan, Canada

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Langenhorst, Falko<sup>1</sup>; Adelhardt, Eric<sup>1</sup>; Mansfeld, Ulrich<sup>1</sup>; Liermann, Hanns-Peter<sup>2</sup>

<sup>1</sup>University of Jena, Germany; <sup>2</sup>Deutsches Elektronen-Synchrotron (DESY)

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**EPSILON - the neutron time-of-flight strain/stress diffractometer and its sample environment for strain investigations in rocks**

Scheffzük, Christian<sup>1,2</sup>; Müller, Birgit I.R.<sup>1</sup>; Tremmel, Roland<sup>1</sup>; Altangerel, Badmaarag<sup>2</sup>; Schilling, Frank R.<sup>1</sup>

<sup>1</sup>Karlsruhe Institute of Technology, Institute of Applied Geosciences, Germany; <sup>2</sup>Frank Laboratory of Neutron Physics, JINR Dubna, Russia

Mon: 89 | 10b) Detailed insights into geodynamic processes and geotechnical applications through neutron and synchrotron X-ray diffraction

**Pressure-induced crystallographic changes of dynamically compressed quartz by X-ray diffraction and electron microscopy**

Otzen, Christoph<sup>1</sup>; Liermann, Hanns-Peter<sup>1</sup>; Langenhorst, Falko<sup>2</sup>

<sup>1</sup>Deutsches Elektronen-Synchrotron DESY, Germany; <sup>2</sup>Friedrich-Schiller-Universität Jena

Mon: 90 | 10b) Detailed insights into geodynamic processes and geotechnical applications through neutron and synchrotron X-ray diffraction

**Synchrotron diffraction as a tool for the texture analysis of mid-ocean ridge serpentinites**

Kuehn, Rebecca<sup>1</sup>; Stipp, Michael<sup>1</sup>; Leiss, Bernd<sup>2</sup>; Behrmann, Jan<sup>3</sup>

<sup>1</sup>Martin-Luther-University Halle, Department of Geodynamics, Halle (Saale), Germany; <sup>2</sup>Geoscience Center of the Georg-August-Universität Göttingen, Department of Structural Geology and Geodynamics, Göttingen, Germany; <sup>3</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel, Marine Geodynamics, Kiel, Germany

Tuesday, 24 September, 17:30-18:30, Sessions: 2c | 2d | 3b | 3c | 4a | 4g | 5a | 5c | 5d | 5e | 5f | 6a | 7b | 7c | 8a | 8c | 11 | 12c | 12d | 13e | 13f

Tue: 1 | 2c) Planetary Accretion and Impact Processes

**A History of Outhouse Rock**

Haber, Thomas; Scherer, Erik E.

*Westfälische Wilhelms-Universität Münster, Institut für Mineralogie, Corrensstr. 24, D-48149 Münster, Germany*

Tue: 2 | 3b) Tectono-Metamorphic Evolution of the Cyclades, Greece

**Exhumation patterns in a bivergent metamorphic core complex: The central Menderes Massif (western Turkey)**

Nilius, Nils-Peter<sup>1</sup>; Glotzbach, Christoph<sup>2</sup>; Wölfler, Andreas<sup>1</sup>; Hampel, Andrea<sup>1</sup>; Akal, Cüneyt<sup>3</sup>; Dunkl, Istvan<sup>4</sup>; Hetzel, Ralf<sup>5</sup>

<sup>1</sup>Institut für Geologie, Leibniz Universität Hannover, Hannover, Germany; <sup>2</sup>Department for Geology and Geodynamics, Universität Tübingen, Tübingen, Germany; <sup>3</sup>Dokuz Eylül University, Department of Geological Engineering, Izmir, Turkey; <sup>4</sup>University of Göttingen, Geoscience Center, Sedimentology and Environment Geology, Göttingen, Germany; <sup>5</sup>Institut für Geologie und Paläontologie, Universität Münster, Münster, Germany

Tue: 3 | 3b) Tectono-Metamorphic Evolution of the Cyclades, Greece

**The evolution of Vari Detachment (Syros, Cyclades)**

Aravadinou, Eirini; Gerogiannis, Nikolaos; Xypolias, Paris

*Department of Geology, University of Patras, GR-26500, Patras, Greece*

Tue: 4 | 3c) Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?

**New insights into the Sierra de Juárez Mylonitic Complex, southern Mexico: constraints on its pre-Mesozoic history and regional implications**

Espejo-Bautista, Guillermo<sup>1</sup>; Solari, Luigi A.<sup>1</sup>; Ortega-Gutiérrez, Fernando<sup>2</sup>; Maldonado, Roberto<sup>1</sup>; Valencia-Morales, Yuly T.<sup>3</sup>

<sup>1</sup>Centro de Geociencias, Universidad Nacional Autónoma de México, Campus Juriquilla, Santiago de Querétaro 76001, Querétaro, México; <sup>2</sup>Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Ciudad de México 04510, México; <sup>3</sup>División de Ciencias de la Tierra, Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Ensenada 22860, Baja California, México



- Tue: 5 | 3c) Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?**  
**Longived pulsed magmatic intrusions along the Northern Gondwana margin revealed by Ordovician to Early Permian LA U-Pb geochronology of Central Pyrenean gneiss domes**  
 Schnapperelle, Stephan<sup>1</sup>; Mezger, Jochen. E.<sup>2</sup>; Stipp, Michael<sup>1</sup>; Hofmann, Mandy<sup>3</sup>; Gärtner, Andreas<sup>3</sup>; Linnemann, Ulf<sup>3</sup>  
<sup>1</sup>Martin-Luther-Universität Halle-Wittenberg, Germany; <sup>2</sup>University of Alaska Fairbanks, United States of America; <sup>3</sup>Senckenberg-Museum Dresden, Germany
- Tue: 6 | 3c) Assembly of Pangea: What do we know about the Variscan orogen and its Avalonian-Cadomian precursors?**  
**U-Pb zircon dating of Paleozoic volcanic rocks from the Rheno-Hercynian Zone: new age constraints for the Steinkopf formation, Lahn-Dill area, Germany**  
 Schulz-Isenbeck, Jan<sup>1,2</sup>; Bröcker, Michael<sup>1</sup>; Berndt, Jasper<sup>1</sup>  
<sup>1</sup>Institut für Mineralogie, Westfälische Wilhelms-Universität Münster, Corrensstr. 24, 48149 Münster, Germany; <sup>2</sup>Institut für Mineralogie, Technische Universität Bergakademie Freiberg, Brennhausgasse 14, 09599 Freiberg, Germany
- Tue: 7 | 4a) Limnogeology and paleolimnology including lagoon systems**  
**Ostracod fauna associated with *Cyprideis torosa* – a tool to differentiate brackish environments**  
 Pint, Anna<sup>1</sup>; Frenzel, Peter<sup>2</sup>  
<sup>1</sup>Institute of Geography, Universität zu Köln, Germany; <sup>2</sup>Institute of Earth Sciences, Friedrich-Schiller-Universität Jena, Germany
- Tue: 8 | 4a) Limnogeology and paleolimnology including lagoon systems**  
**The Middle Eocene maar lake “Groß Zimmern” (Hesse, Southwest Germany): Vegetation dynamics in a disturbed lacustrine record**  
 Mutzl, Jürgen<sup>1</sup>; Lenz, Olaf K.<sup>2</sup>; Wilde, Volker<sup>3</sup>  
<sup>1</sup>Technische Universität Darmstadt, Germany; <sup>2</sup>Senckenberg Gesellschaft für Naturforschung, Generaldirektion, Germany; <sup>3</sup>Senckenberg Forschungsinstitut und Naturmuseum, Sektion Paläobotanik, Germany
- Tue: 9 | 4g) Advances in geochronology from modern to deep time**  
**Radiation damage in zircon - A Raman multi-band approach**  
 Härtel, Birk; Jonckheere, Raymond; Ratschbacher, Lothar  
 TU Bergakademie Freiberg, Germany
- Tue: 10 | 4g) Advances in geochronology from modern to deep time**  
**Insights into Fe-duricrust evolution in French Guiana using (U-Th-Sm)/He dating of supergene iron oxides and oxyhydroxides**  
 Heller, Beatrix<sup>1,2</sup>; Bressan-Riffel, Silvana<sup>3</sup>; Gautheron, Cécile<sup>1</sup>; Allard, Thierry<sup>2</sup>; Morin, Guillaume<sup>2</sup>; Roig, Jean-Yves<sup>4</sup>; Coueffe, Renaud<sup>4</sup>  
<sup>1</sup>GEOPS, Université Paris Sud | Paris Saclay, France; <sup>2</sup>IMPMC, Sorbonne Université, France; <sup>3</sup>Institute of Geosciences, Federal University of Rio Grande do Sul, Brazil; <sup>4</sup>BRGM (French Geological Survey), France
- Tue: 11 | 4g) Advances in geochronology from modern to deep time**  
**U-Th-total Pb geochronology of uraninite and its secondary phases (Evje-Iveland Pegmatite Field, Norway)**  
 Öz, Deniz<sup>1</sup>; Tomaschek, Frank<sup>1</sup>; Werner, Ronald<sup>2</sup>; Geisler, Thorsten<sup>1</sup>  
<sup>1</sup>Universität Bonn, Germany; <sup>2</sup>Evje og Hornnes geomuseum Fennefoss, Postboks 24, N-4748 Rysstad, Norway
- Tue: 12 | 4g) Advances in geochronology from modern to deep time**  
**Aqueous alteration events in silicified wood from Escalante, Utah, USA**  
 Tomaschek, Frank<sup>1</sup>; Liesegang, Moritz<sup>2</sup>; Gee, Carole T.<sup>2</sup>; Krick, Alicia<sup>1</sup>; Lagos, Markus<sup>1</sup>; Guagliardo, Paul<sup>3</sup>; Geisler, Thorsten<sup>1</sup>  
<sup>1</sup>Institut für Geowissenschaften, Bereich Endogene Prozesse, Universität Bonn, Poppelsdorfer Schloss, 53115 Bonn, Germany; <sup>2</sup>Institut für Geowissenschaften, Bereich Paläontologie, Universität Bonn, Nußallee 8, 53115 Bonn, Germany; <sup>3</sup>Centre for Microscopy, Characterisation and Analysis, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009, Australia
- Tue: 13 | 5a) Volatiles in the Earth’s Mantle – Elemental Budgets & Cycles**  
**NMR analysis on fluorine defects in forsterite and wadsleyite**  
 Grütznert, Tobias<sup>1</sup>; Beyer, Christopher<sup>2</sup>; Shcheka, Svyatoslav<sup>3</sup>; Fechtelkord, Michael<sup>2</sup>; Klemme, Stephan<sup>1</sup>  
<sup>1</sup>Institut für Mineralogie, Universität Münster, Germany; <sup>2</sup>Institut für Geowissenschaften, Universität Bochum, Germany; <sup>3</sup>Bayrisches Geoinstitut, Universität Bayreuth, Germany
- Tue: 14 | 5a) Volatiles in the Earth’s Mantle – Elemental Budgets & Cycles**  
**A preliminary density model for carbonate-rich melts based on high pressure experimental data.**  
 Massuyeau, Malcolm; Ritter, Xenia; Sanchez-Valle, Carmen  
 University of Münster, Institute for Mineralogy, Münster, Germany
- Tue: 15 | 5c) Intraplate volcanism, mantle plumes and continental breakup**  
**Demenitskoy Smt. (East Atlantic) and the importance of small, isolated intraplate seamounts in the ocean basins**  
 Long, Xiaojun<sup>1</sup>; Geldmacher, Jörg<sup>1</sup>; Hoernle, Kaj<sup>1,2</sup>; Hauff, Folkmar<sup>1</sup>; Wartho, Jo-Anne<sup>1</sup>; Garbe-Schönberg, Dieter<sup>2</sup>  
<sup>1</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel; <sup>2</sup>Institute of Geosciences, Christian-Albrechts-University Kiel
- Tue: 16 | 5c) Intraplate volcanism, mantle plumes and continental breakup**  
**Double Age progressive hotspot tracks – Primary EM I-type and secondary HIMU mantle plumes in the South Atlantic**  
 Homrighausen, Stephan<sup>1</sup>; Hoernle, Kaj<sup>1,2</sup>; Zhou, Hongpu<sup>1</sup>; Wartho, Jo-Anne<sup>1</sup>; Hauff, Folkmar<sup>1</sup>; Werner, Reinhard<sup>1</sup>; Garbe-Schönberg, Dieter<sup>2</sup>  
<sup>1</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany; <sup>2</sup>Christian-Albrechts-University of Kiel, Germany
- Tue: 17 | 5c) Intraplate volcanism, mantle plumes and continental breakup**  
**Geochemical evolution of the Main Deccan Volcanic Province, NW-India**  
 Hoyer, Patrick A.<sup>1</sup>; Haase, Karsten M.<sup>1</sup>; Regelous, Marcel<sup>1</sup>; Fluteau, Frédéric<sup>2</sup>  
<sup>1</sup>GeoZentrum Nordbayern, FAU, Erlangen, Germany; <sup>2</sup>Institut de Physique du Globe de Paris, Paris Diderot University, Paris, France
- Tue: 18 | 5c) Intraplate volcanism, mantle plumes and continental breakup**  
**Storage, Transport and Emplacement Of Low-Ti Dacites in the Southern Paraná-Etendeka Lip: Geochemical Characterization and Implications For Trans-Atlantic Correlations**  
 Simões, Matheus Silva<sup>1</sup>; Lima, Evandro Fernandes<sup>2</sup>; Rossetti, Lucas May de Magalhães<sup>2</sup>; Sommer, Carlos Augusto<sup>2</sup>; Chemale, Lucy Takehara<sup>1</sup>  
<sup>1</sup>Geological Survey of Brazil, Brazil; <sup>2</sup>Federal University of Rio Grande do Sul

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**Tue: 19 | 5d) The role of subduction zones on Earth's dynamic evolution**

**Molybdenum isotope systematics at convergent plate margins – the effect of deep sea pelagic sediments**

Ahmad, Qasid<sup>1</sup>; Wille, Martin<sup>1</sup>; Rosca, Carolina<sup>2</sup>; König, Stephan<sup>2</sup>

<sup>1</sup>University of Bern, Switzerland; <sup>2</sup>University of Tübingen, Germany

**Tue: 20 | 5d) The role of subduction zones on Earth's dynamic evolution**

**Variations in Fe<sup>3+</sup>/FeT ratios in igneous amphiboles as a function of oxygen fugacity in hydrous arc magmas**

Ratschbacher, Barbara C<sup>1</sup>; Bucholz, Claire E<sup>1</sup>; Jackson, Jennifer M<sup>1</sup>; Solomatova, Natalia V<sup>1,2</sup>; Sosa, Emma S<sup>1</sup>

<sup>1</sup>California Institute of Technology, United States of America; <sup>2</sup>Ecole Normale Supérieure Lyon, LGTPE, Lyon, France

**Tue: 21 | 5d) The role of subduction zones on Earth's dynamic evolution**

**Variably depleted mantle wedge sections beneath Tonga – insights from stable Zn isotope systematics in arc lavas**

Rosca, Carolina<sup>1</sup>; König, Stephan<sup>1</sup>; Wille, Martin<sup>2</sup>; Pons, Marie-Laure<sup>1,3</sup>; Schoenberg, Ronny<sup>1</sup>

<sup>1</sup>Department of Geosciences, University of Tübingen, Germany; <sup>2</sup>Institute of Geological Sciences, University of Bern, Switzerland; <sup>3</sup>CERGE, Aix Marseille Université, France

**Tue: 22 | 5d) The role of subduction zones on Earth's dynamic evolution**

**Mantle dynamics and slab contributions in subduction zones, at intra-island scale: 'Ata island, Tonga arc, SW Pacific**

Storch, Bettina<sup>1</sup>; Regelous, Marcel<sup>1</sup>; Haase, Karsten M.<sup>1</sup>; Turner, Simon<sup>2</sup>

<sup>1</sup>GeoZentrum Nordbayern, Friedrich-Alexander Universität Erlangen-Nürnberg (FAU), Schlossgarten 5, 91054 Erlangen, Germany; <sup>2</sup>Department of Earth and Planetary Sciences, Macquarie University, NSW, 2109, Australia

**Tue: 23 | 5d) The role of subduction zones on Earth's dynamic evolution**

**Crustal recycling within the mantle: reaction experiments on the origin of ultrapotassic magma**

Zemlitskaya, Anastasia<sup>1</sup>; Prelevic, Dejan<sup>1,2</sup>; Buhre, Stephan<sup>1</sup>; Förster, Michael W.<sup>3</sup>

<sup>1</sup>Institute of Geosciences, J.-J.-Becher-Weg 21, Johannes Gutenberg University, 55099 Mainz, Germany; <sup>2</sup>Faculty of Mining and Geology University, Dušina 7, 11000 Belgrade, Serbia; <sup>3</sup>Department of Earth and Planetary Sciences, 16 University Avenue, Macquarie University, NSW 2109, Sydney

**Tue: 24 | 5e) Stable isotope fractionation at high temperatures**

**A unified model for the temperature-, pressure-, and composition-dependence of 18O/16O fractionation involving H<sub>2</sub>O-NaCl fluids**

Driesner, Thomas

ETH Zurich, Switzerland

**Tue: 25 | 5e) Stable isotope fractionation at high temperatures**

**Chromium isotope fractionation during magma differentiation**

Genske, Felix; Stracke, Andreas; Klemme, Stephan

Institut für Mineralogie, Westfälische Wilhelms-Universität Münster, Corrensstrasse 24, 48149 Münster, Germany

**Tue: 26 | 5e) Stable isotope fractionation at high temperatures**

**Sulfur isotope measurements of reference materials using MC-ICP-MS**

Timmerman, Suzette; Genske, Felix; Stracke, Andreas

Westfälische Wilhelms-Universität Münster, Germany

**Tue: 27 | 5e) Stable isotope fractionation at high temperatures**

**An experimental approach to determine Calcium isotope fractionation between minerals and melts**

Gussone, Nikolaus; Schwenne, Jennifer; Stracke, Andreas; Klemme, Stephan

Institut für Mineralogie, Universität Münster, Germany

**Tue: 28 | The contribution has been withdrawn.**

**Assessment of Major Elements and Boron Isotopes in Tourmaline from the Mansehra Granitic Complex, NW Pakistan**

Irum, Irum<sup>1</sup>; Trumbull, Robert. B.<sup>2</sup>; Altenberger, Uwe<sup>1</sup>; Zeilinger, Gerold<sup>1</sup>; Ghani, Humaad<sup>1</sup>

<sup>1</sup>Institute of Geosciences, University of Potsdam, 14476 Golm-Potsdam, Germany; <sup>2</sup>GFZ German Research Center for Geosciences, Telegrafenberg, 14473 Potsdam, Germany

**Tue: 29 | 5e) Stable isotope fractionation at high temperatures**

**Molybdenum isotope fractionation between melt, exsolved fluid and hydrothermal minerals at the magmatic-hydrothermal transition**

Kaufmann, Anne; Pettke, Thomas; O'Sullivan, Edel; Wille, Martin

Institute of Geological Sciences, University of Bern, Switzerland

**Tue: 30 | 5e) Stable isotope fractionation at high temperatures**

**Lithium chemical and isotope diffusion in natural olivines and its implications on the timing of magmatic events**

Steinmann, Lena K.<sup>1</sup>; Oeser, Martin<sup>1</sup>; Almeev, Renat R.<sup>1</sup>; Portnyagin, Maxim<sup>2</sup>; Weyer, Stefan<sup>1</sup>

<sup>1</sup>Leibniz Universität Hannover, Institut für Mineralogie, Germany; <sup>2</sup>Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany

**Tue: 31 | 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface**

**The effect of F on the stability of antigorite and the transfer of halogens in the deep mantle**

Flemetakis, Stamatis; Klemme, Stephan; Rohrbach, Arno; Berndt, Jasper

WWU Münster, Germany

**Tue: 32 | 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface**

**The role of oxygen fugacity on the stability of serpentinites in subduction zones**

Eberhard, Lisa; Frost, Daniel; McCammon, Catherine

University of Bayreuth, Germany

**Tue: 33 | 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface**

**Pargasite stability in the upper mantle at H<sub>2</sub>O-undersaturated conditions**

Putak Juricek, Marija; Keppler, Hans

BGI, University of Bayreuth



**Tue: 34** | 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface

**Tracing redox evolution of arc magmas during amphibole fractionation in the deep crust: Constraints from cumulate xenoliths from Ichinomegata Maar, NE Japan**

Tsushima, Naoya; Nakamura, Michihiko; Yanagida, Yasuhiro; Yoshida, Takeyoshi

*Division of Earth and Planetary Materials Science, Department of Earth Science, Graduate School of Science, Tohoku University*

**Tue: 35** | 5f) The distribution and influence of volatile elements in the Earth's interior and their exchange with the surface

**Trace element partitioning between Cl- and S-bearing aqueous fluid and basaltic melt**

Zemlitskaya, Anastasia<sup>1</sup>; Botcharnikov, Roman E.<sup>1,2</sup>; Derrey, Insa T.<sup>2</sup>; Portnyagin, Maxim V.<sup>3,4</sup>; Mertz-Kraus, Regina<sup>1</sup>; Buhre, Stephan<sup>1</sup>; Weyer, Stefan<sup>2</sup>; Holtz, Francois<sup>2</sup>

<sup>1</sup>Johannes Gutenberg University Mainz, Germany; <sup>2</sup>Leibniz University Hannover, Germany; <sup>3</sup>GEOMAR, Helmholtz Centre for Ocean Research Kiel, Germany; <sup>4</sup>Vernadsky Institute of Geochemistry and Analytical Chemistry Moscow, Russia

**Tue: 36** | The contribution has been withdrawn.

**P-T conditions and Rb-Sr ages of metamorphic rocks from the Meratus and Luk Ulo complexes, Indonesia**

Alfing, Julian<sup>1</sup>; Bröcker, Michael<sup>1</sup>; Setiawan, Nugroho Imam<sup>2</sup>

<sup>1</sup>Institut für Mineralogie, Westfälische Wilhelms-Universität Münster, Corrensstr. 24, 48149 Münster, Germany; <sup>2</sup>Geological Engineering Department, Universitas Gadjah Mada, 55281 Yogyakarta, Indonesia

**Tue: 37** | 6a) Metamorphic processes

**A Barrovian-type overprint of high pressure rocks: PTt-evolution in the Ordovician Corner Brook Complex (W-Newfoundland, Canada)**

Bißbort, Thilo<sup>1</sup>; Willner, Arne P.<sup>1</sup>; Glodny, Johannes<sup>2</sup>; van Staal, Cees R.<sup>3</sup>; Schertl, Hans-Peter<sup>1</sup>; Zagorevski, Alexandre<sup>4</sup>

<sup>1</sup>Ruhr-Universität Bochum, Germany; <sup>2</sup>Deutsches Geoforschungszentrum Potsdam, Germany; <sup>3</sup>Geological Survey of Canada Vancouver, Canada; <sup>4</sup>Geological Survey of Canada Ottawa, Canada

**Tue: 38** | 6a) Metamorphic processes

**Investigation of U-Pb ages from the Bantimala Complex, SW Sulawesi, Indonesia: Protolith ages and an unusual zircon population**

Böhnke, Mischa<sup>1</sup>; Bröcker, Michael<sup>1</sup>; Maulana, Adi<sup>2</sup>; Klemd, Reiner<sup>3</sup>; Berndt, Jasper<sup>1</sup>

<sup>1</sup>Institut für Mineralogie, Westfälische-Wilhelms Universität Münster, Corrensstr. 24, 48149 Münster, Germany; <sup>2</sup>Department of Geology Engineering, Hasanuddin University, 90245 Makassar, Indonesia; <sup>3</sup>GeoZentrum Nordbayern, Universität Erlangen, Schlossgarten 5a, 91054 Erlangen, Germany

**Tue: 39** | 6a) Metamorphic processes

**Structural and petrographic description of an ultramafic complex in the north of the Fjällfjäll-window (North Sweden)**

Meyer, Laura

*Martin-Luther-University Halle-Wittenberg, Germany*

**Tue: 40** | 6a) Metamorphic processes

**Contradictory in-situ U-Pb ages from major and accessory metamorphic phases**

Millonig, Leo J.<sup>1</sup>; Albert, Richard<sup>1</sup>; Avigad, Dov<sup>2</sup>; Gerdes, Axel<sup>1</sup>

<sup>1</sup>Department of Geosciences, Goethe University Frankfurt, Germany; <sup>2</sup>Institute of Earth Sciences, Hebrew University of Jerusalem, Israel

**Tue: 41** | 6a) Metamorphic processes

**Petrological and Lu-Hf age constraints for eclogitic rocks from the Pam Peninsula, New Caledonia**

Taetz, Stephan<sup>1</sup>; Scherer, Erik<sup>1</sup>; Bröcker, Michael<sup>1</sup>; John, Timm<sup>2</sup>; Spandler, Carl<sup>3</sup>

<sup>1</sup>Institut für Mineralogie, Westfälische Wilhelms-Universität Münster, Corrensstraße 24, 48149 Münster, Germany; <sup>2</sup>Institut für Geologische Wissenschaften, Freie Universität Berlin, Malteserstr. 74-100, 12449 Berlin, Germany; <sup>3</sup>Economic Geology Research Centre, James Cook University, Townsville, 4811, Australia

**Tue: 42** | 7b) Sediment generation and quantitative provenance analysis

**Late Palaeozoic and Early Mesozoic evolution of the Palaeotethys: new insights from sandstone provenance (Karaburun Peninsula and Konya Complex, Turkey)**

Löwen, Kersten<sup>1</sup>; Meinhold, Guido<sup>1,2</sup>; Arslan, Arzu<sup>2</sup>; Güngör, Talip<sup>3</sup>; Berndt, Jasper<sup>4</sup>

<sup>1</sup>Department of Sedimentology and Environmental Geology, Göttingen University, Germany; <sup>2</sup>School of Geography, Geology and the Environment, Keele University, United Kingdom; <sup>3</sup>Department of Geological Engineering, Dokuz Eylül University, Buca-İzmir, Turkey; <sup>4</sup>Institute of Mineralogy, Westfälische Wilhelms-Universität Münster, Germany

**Tue: 43** | 7b) Sediment generation and quantitative provenance analysis

**Crustal growth history of the Iberian Peninsula constrained by detrital zircon in modern rivers**

Castillo, Paula; Bahlburg, Heinrich; Berndt, Jasper

*WWU Münster, Germany*

**Tue: 44** | 7b) Sediment generation and quantitative provenance analysis

**OH defects in detrital quartz: a proxy for reconstructing the tectonic environment of sedimentary deposits?**

Jaeger, Dominik<sup>1,2</sup>; Stalder, Roland<sup>1</sup>; Strasser, Michael<sup>2</sup>

<sup>1</sup>Institute of Mineralogy and Petrography, University of Innsbruck, Austria; <sup>2</sup>Department of Geology, University of Innsbruck, Austria

**Tue: 45** | 7b) Sediment generation and quantitative provenance analysis

**Preliminary study on stratigraphy, facies analysis and petrography of Neoproterozoic meta-sediments, magmatic bodies and volcanoclastic deposits in Skoura inlier (Central High Atlas, Morocco).**

Karaoui, Amar<sup>1</sup>; Mahmoudi, Abdelkader<sup>1</sup>; Karaoui, Brahim<sup>2</sup>; Yajjoui, Zakarya<sup>1</sup>; Breitzkreuz, Christoph<sup>3</sup>

<sup>1</sup>Faculty of Sciences, Moulay Ismail University, Meknes, Morocco; <sup>2</sup>Faculty of Sciences and Techniques, Moulay Ismail University, Errachidia, Morocco;

<sup>3</sup>Technische Universität Bergakademie Freiberg, Germany

**Tue: 46** | 7b) Sediment generation and quantitative provenance analysis

**Mineralogy, geochemistry and U-Pb zircon ages of diverse Tonian orthogneisses of the Pearya Terrane, northern Ellesmere Island, Canada**

Koglin, Nikola<sup>1</sup>; Schmelz, Vanessa<sup>2</sup>; Estrada, Solveig<sup>1</sup>; Piepjohn, Karsten<sup>1</sup>; Linnemann, Ulf<sup>3</sup>

<sup>1</sup>Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Hannover, Germany; <sup>2</sup>Lehrstuhl für Geodynamik und Geomaterialforschung, Universität Würzburg, Germany; <sup>3</sup>Senckenberg Naturhistorische Sammlungen Dresden, Germany

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## **Genesis and petrography of the “Mammendorfer Sandstone”**

Laslo, Lisa

*Martin-Luther-University Halle-Wittenberg, Germany*

Tue: 48 | 7b) Sediment generation and quantitative provenance analysis

## **The ‘life cycle’ of coesite-bearing garnet: From inclusion entrapment over exhumation, surface weathering, erosion and sedimentary transport, to its deposition**

Schönig, Jan<sup>1</sup>; von Eynatten, Hilmar<sup>1</sup>; Meinhold, Guido<sup>1,2</sup>; Lünsdorf, Keno<sup>1</sup>

<sup>1</sup>Geoscience Center Göttingen, Georg-August-University Göttingen, Germany; <sup>2</sup>School of Geography, Geology and the Environment, Keele University, Keele, Staffordshire, ST5 5BG, UK

Tue: 49 | 7b) Sediment generation and quantitative provenance analysis

## **Paleozoic accretionary orogens along the Western Gondwana margin**

Oriolo, Sebastián<sup>1</sup>; Schulz, Bernhard<sup>2</sup>; Siegesmund, Siegfried<sup>3</sup>

<sup>1</sup>CONICET-Universidad de Buenos Aires. Instituto de Geociencias Básicas, Aplicadas y Ambientales de Buenos Aires (IGEBA); <sup>2</sup>TU Bergakademie Freiberg/Sachsen, Germany; <sup>3</sup>Geoscience Centre, Georg-August-Universität Göttingen

Tue: 50 | 7b) Sediment generation and quantitative provenance analysis

## **High-n sample comparison of detrital age spectra from pre-orogenic units of the Variscan-Appalachian belt**

Stephan, Tobias

*TU Bergakademie Freiberg, Institut für Geologie, Freiberg, Germany*

Tue: 51 | 7b) Sediment generation and quantitative provenance analysis

## **Trace element inventory of detrital garnet: a case study from the Central Alps**

Stutenbecker, Laura<sup>1</sup>; Tollan, Peter M.E.<sup>2</sup>

<sup>1</sup>TU Darmstadt, Germany; <sup>2</sup>University of Bern, Switzerland

Tue: 52 | 7c) Rock and fluid dynamics in deep sedimentary systems

## **Abiotic oxidation of H<sub>2</sub> by the redox-active minerals hematite and pyrite at dry and wet underground storage conditions (120°C, 100 bar H<sub>2</sub>)**

Alpermann, Theodor; Ostertag-Henning, Christian

*Bundesanstalt für Geowissenschaften und Rohstoffe, Germany*

Tue: 53 | 7c) Rock and fluid dynamics in deep sedimentary systems

## **Carnian outer continental shelf successions in the Western Tethys realm**

Missoni, Sigrid; Gawlick, Hans-Jürgen

*Montanuniversität Leoben, Austria*

Tue: 54 | 7c) Rock and fluid dynamics in deep sedimentary systems

## **Superimposed faults and structures of different genetic origin: Possible fluid migration pathways through barrier formations in the German North Sea?**

Stück, Heidrun Louise; Bense, Frithjof; Jähne-Klingberg, Fabian

*Federal Institute for Geosciences and Natural Resources, Germany*

Tue: 55 | 8a) Geological and hydrogeological characterisation of reservoir rocks

## **Buntsandstein (Lower Triassic) reservoirs in Northeast Germany: perspectives for geothermal use.**

Dunkerley, Owen; Sattelberger, Martin; Barth, Gregor; Obst, Karsten

*Geological Survey of Mecklenburg - Western Pomerania, LUNG M-V, Germany*

Tue: 56 | 8a) Geological and hydrogeological characterisation of reservoir rocks

## **4D Geo-Positron-Emission-Tomography (GeoPET) in situ fluid flow channel visualization in an unaltered granite fracture from Soultz-sous-Forêts (France)**

Pingel, Janis Leon<sup>1</sup>; Kulenkampff, Johannes<sup>2</sup>; Stoll, Madeleine<sup>3</sup>; Schäfer, Thorsten<sup>1</sup>; Fischer, Cornelius<sup>2</sup>

<sup>1</sup>Friedrich-Schiller-Universität Jena, Germany; <sup>2</sup>Helmholtz-Zentrum Dresden-Rossendorf, Germany; <sup>3</sup>Karlsruhe Institute of Technology, Germany

Tue: 57 | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

## **SpannEnD – Modelling the 3D stress state of Germany**

Ahlers, Steffen<sup>1</sup>; Röckel, Luisa<sup>2</sup>; Henk, Andreas<sup>1</sup>; Reiter, Karsten<sup>1</sup>; Hergert, Tobias<sup>1</sup>; Müller, Birgit<sup>2</sup>; Schilling, Frank<sup>2</sup>; Heidbach, Oliver<sup>3</sup>; Morawietz, Sophia<sup>3</sup>; Scheck-Wenderoth, Magdalena<sup>3</sup>; Anikiev, Denis<sup>3</sup>

<sup>1</sup>Institut für Angewandte Geowissenschaften, TU Darmstadt, Germany; <sup>2</sup>Institut für Angewandte Geowissenschaften, KIT, Karlsruhe, Germany; <sup>3</sup>Deutsches GeoForschungsZentrum (GFZ), Potsdam, Germany

Tue: 58 | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

## **Application of High Performance Computing to evaluate effects of system heterogeneity in coupled reactive transport simulations at various scales**

Deissmann, Guido<sup>1</sup>; Trincherro, Paolo<sup>2</sup>; Molinero, Jorge<sup>2</sup>; Iraola, Aitor<sup>2</sup>; Puigdomenech, Ignasi<sup>3</sup>; Gylling, Björn<sup>4</sup>; Bosbach, Dirk<sup>1</sup>

<sup>1</sup>Forschungszentrum Jülich GmbH, Jülich, Germany; <sup>2</sup>Amphos21 Consulting, Barcelona, Spain; <sup>3</sup>Svensk Kärnbränslehantering AB (SKB), Stockholm, Sweden; <sup>4</sup>Gylling GeoSolutions, Evanston, USA

Tue: 59 | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

## **Method development for pore water extraction from consolidated clays: optimization for dissolved short-chain organic acids**

Helten, Oliver; Schumacher, Sandra; Ostertag-Henning, Christian

*Federal Institute for Geosciences and Natural Resources, Hannover, Germany*





**Tue: 60** | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

**Transmission X-ray microscopy as a novel tool to study corroded silicate waste glasses**

Kutzschbach, Martin<sup>1</sup>; Wilke, Max<sup>2</sup>; Guttman, Peter<sup>3</sup>; Marquardt, Katharina<sup>4</sup>

<sup>1</sup>Technische Universität Berlin, Institut für Angewandte Geowissenschaften, Fachgebiet Angewandte Geochemie, Germany; <sup>2</sup>Universität Potsdam, Institut für Geowissenschaften, Germany; <sup>3</sup>Helmholtz-Zentrum Berlin, Research Group X-ray Microscopy, Germany; <sup>4</sup>Imperial College London, Faculty of Engineering, Department of Materials, United Kingdom

**Tue: 61** | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

**A unifying mechanistic model for borosilicate glass corrosion**

Lenting, Christoph<sup>1,3</sup>; Fritzsche, Moritz Bernd Karl<sup>2,3</sup>; Dohmen, Lars<sup>2,3</sup>; Putnis, Christine V.<sup>4</sup>; Kirlburn, Matt<sup>5</sup>; Guagliardo, Paul<sup>5</sup>; Plümper, Oliver<sup>6</sup>; Klinkenberg, Martina<sup>7</sup>; Geisler, Thorsten<sup>2</sup>

<sup>1</sup>Institut für Geologie und Mineralogie, Uni Köln, Germany; <sup>2</sup>Schott AG, Germany; <sup>3</sup>Institut für Geowissenschaften, Uni Bonn, Germany; <sup>4</sup>Institut für Mineralogie, Uni Münster, Germany; <sup>5</sup>CMCA, UWA, Perth, Australia; <sup>6</sup>Department of Earth Sciences, Utrecht University, The Netherlands; <sup>7</sup>IEK-6, Forschungszentrum Jülich, Germany

**Tue: 62** | 8c) Geosciences and safe nuclear waste disposal – current status and future directions

**Would you like stress?**

Morawietz, Sophia<sup>1</sup>; Heidebach, Oliver<sup>1</sup>; Reiter, Karsten<sup>2</sup>; Ziegler, Moritz<sup>1</sup>; SpannEnD, Team<sup>1,2,3</sup>

<sup>1</sup>Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum GFZ, Germany; <sup>2</sup>TU Darmstadt, Institut für Angewandte Geowissenschaften; <sup>3</sup>KIT - Karlsruher Institut für Technologie, Institut für Angewandte Geowissenschaften

**Tue: 63** | 11a) Structural properties of minerals and materials

**Crack-enhanced weathering in engraved marble: a possible application in epigraphy**

Aspiotis, Stylianos<sup>1</sup>; Schlüter, Jochen<sup>2</sup>; Harter-Uibopuu, Kaja<sup>3</sup>; Mihailova, Boriana<sup>1</sup>

<sup>1</sup>Fachbereich Geowissenschaften, Universität Hamburg, Germany; <sup>2</sup>CeNaK, Mineralogisches Museum, Universität Hamburg; <sup>3</sup>Fachbereich Geschichte, Universität Hamburg

**Tue: 64** | 11a) Structural properties of minerals and materials

**Characterization of heat-treated ceramics consisting of zoned acicular crystals with two mullite phases of different compositions**

Birkenstock, Johannes; Fischer, Reinhard X.; Schneider, Hartmut

Universität Bremen, FB5-Geowissenschaften, Germany

**Tue: 65** | 11a) Structural properties of minerals and materials

**Polarized mapping Raman spectroscopy: Identification of particle orientation in biominerals**

He, Jianhan; Bismayer, Ulrich

Universität Hamburg | Mineralogy, Germany

**Tue: 66** | 11a) Structural properties of minerals and materials

**Thermoelastic properties of rare-earth scandates SmScO<sub>3</sub>, TbScO<sub>3</sub> and DyScO<sub>3</sub>**

Hirschle, Christian<sup>1</sup>; Schreuer, Jürgen<sup>1</sup>; Ganschow, Steffen<sup>2</sup>; Schulze-Jonack, Isabelle-Mercedes<sup>2</sup>

<sup>1</sup>Ruhr-Universität Bochum, Institut für Geologie, Mineralogie und Geophysik, Universitätsstr. 150, 44801 Bochum, Germany; <sup>2</sup>Leibniz-Institut für Kristallzüchtung, Max-Born-Str. 2, 12489 Berlin, Germany

**Tue: 67** | 11a) Structural properties of minerals and materials

**Studies on Labradorescence**

Kraft, Nikolas; Kloess, Gert; Hoelzig, Hieronymus; Scheffler, Johannes

Leipzig University, Faculty of Chemistry and Mineralogy, IMKM, Germany

**Tue: 68** | 11a) Structural properties of minerals and materials

**The diagenetic loop of the opal-A to opal-CT transformation**

Liesegang, Moritz; Tomaschek, Frank

Institute of Geological Sciences - University Bonn, Germany

**Tue: 69** | 11a) Structural properties of minerals and materials

**Structural modulations in malayaite, CaSnOSiO<sub>4</sub>**

Malcherek, Thomas<sup>1</sup>; Paulenz, Bianca<sup>1</sup>; Fischer, Michael<sup>2</sup>; Mihailova, Boriana<sup>1</sup>; Paulmann, Carsten<sup>1</sup>

<sup>1</sup>Mineralogisch-Petrographisches Institut, Universität Hamburg, Germany; <sup>2</sup>Fachgebiet Kristallographie, Fachbereich Geowissenschaften, Universität Bremen, Germany

**Tue: 70** | 11a) Structural properties of minerals and materials

**Structural control of thermomechanical properties of monoclinic rare-earth calcium oxoborates**

Münchhalphen, Marie<sup>1</sup>; Schreuer, Jürgen<sup>1</sup>; Reuther, Christoph<sup>2</sup>; Mehner, Erik<sup>3</sup>; Stöcker, Hartmut<sup>3</sup>

<sup>1</sup>Institute of Geology, Mineralogy and Geophysics, Ruhr University Bochum, Germany; <sup>2</sup>Institut of Mineralogy, Freiberg University of Mining and Technology; <sup>3</sup>Institute of Experimental Physics, Freiberg University of Mining and Technology

**Tue: 71** | 11a) Structural properties of minerals and materials

**Ceramic transformations during firing of ancient Japanese stone ware (Sueki): insights from firing experiments**

Raith, Michael M.; Euler, Harald; Spiering, Beate; Hoffbauer, Radegund

Universität Bonn, Germany

**Tue: 72** | 11a) Structural properties of minerals and materials

**Thermal stability and oxidation processes in actinolite studied by Raman spectroscopy**

Rösche, Constanze; Waesemann, Naemi; Schlüter, Jochen; Mihailova, Boriana

Department Earth Sciences, University of Hamburg, Grindelallee 48, Hamburg, 20146, Germany

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## **Radiation induced lattice disordering in monazite and xenotime from Namibia**

Scheffler, Johannes; Kloess, Gert; Hoelzig, Hieronymus; Kraft, Nikolas

Leipzig University, Faculty of Chemistry and Mineralogy, IMKM, Germany, Germany

Tue: 74 | 11a) Structural properties of minerals and materials

## **Comparison of the thermal expansivity of transition metal olivines**

Schmid-Beurmann, Peter<sup>1</sup>; Kroll, Herbert<sup>1</sup>; Sell, Alexander<sup>1</sup>; Dohr, Robin<sup>1</sup>; Kirfel, Armin<sup>2</sup>; Krüger, Hannes<sup>3</sup>; Kahlenberg, Volker<sup>3</sup>

<sup>1</sup>Institut für Mineralogie, WWU Münster, Germany; <sup>2</sup>Steinmann Institut, RFW Bonn, Germany; <sup>3</sup>Institut für Mineralogie und Petrographie, Universität Innsbruck, Austria

Tue: 75 | 11a) Structural properties of minerals and materials

## **Insights into the stability of 5-fold coordinated Si in MgSiO<sub>3</sub>-melts at pressures of the Earth's upper mantle**

Schulze, Maximilian<sup>1</sup>; Spiekermann, Georg<sup>2</sup>; Wilke, Max<sup>2</sup>; Heide, Gerhard<sup>1</sup>

<sup>1</sup>TU Bergakademie Freiberg, Germany; <sup>2</sup>Universität Potsdam, Germany

Tue: 76 | 11a) Structural properties of minerals and materials

## **Nanoindentation to evaluate the mechanical properties of geopolymers: first steps.**

Werling, Nadja<sup>1</sup>; Schwaiger, Ruth<sup>2</sup>; Dehn, Frank<sup>3</sup>; Schuhmann, Rainer<sup>1</sup>; Emmerich, Katja<sup>1</sup>

<sup>1</sup>Competence Center for Material Moisture (CMM), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany; <sup>2</sup>Institute for Applied Materials (IAM), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany; <sup>3</sup>Institute for Concrete Structures and Building Materials (IMB), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

Tue: 77 | 11a) Structural properties of minerals and materials

## **Characterization of a badly crystalline phyllo-manganate, Ca<sub>2</sub>xMn<sub>1-x</sub>O<sub>2</sub>·1.5-2 H<sub>2</sub>O (Lagalyite)**

Witzke, Thomas<sup>1</sup>; Pöllmann, Herbert<sup>2</sup>; Gardolinski, José Eduardo<sup>1</sup>; Sommariva, Marco<sup>1</sup>

<sup>1</sup>Malvern Panalytical, The Netherlands; <sup>2</sup>Martin-Luther-University Halle-Wittenberg, Institute for Geosciences and Geography, Germany

Tue: 78 | 11a) Structural properties of minerals and materials

## **Mineralogical study of a pair of Bronze Age plaques from the Erlitou culture, China**

Witzke, Thomas; Norberg, Nicholas; Sommariva, Marco

Malvern Panalytical, The Netherlands

Tue: 79 | 11a) Structural properties of minerals and materials

## **Hand-coloured maps – An interdisciplinary study of cartographers' historical pigments**

Zietlow, Peter

Universität Hamburg

Tue: 80 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **Thorium-poor monazite and columbite-(Fe) mineralization in the Gleibat Lafhouda carbonatite and its associated iron-oxide-apatite deposit of the Ouled Dlim Massif, South Morocco**

Benaouda, Rachid<sup>1</sup>; Kraemer, Dennis<sup>1</sup>; Sitnikova, Maria<sup>2</sup>; Goldmann, Simon<sup>2</sup>; Freitag, Ralf<sup>2</sup>; Bouali, Abdelhafid<sup>3</sup>; Mouttaqi, Abdellah<sup>3</sup>; Bau, Michael<sup>1</sup>

<sup>1</sup>Jacobs University, Bremen, Germany; <sup>2</sup>Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover, Germany; <sup>3</sup>National Office of Hydrocarbons and Mines, Rabat, Morocco

Tue: 81 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **As-rich VMS Mineralization at Niua South, Tonga Arc**

Falkenberg, Jan Johannes; Haase, Karsten; Günther, Thomas; Keith, Manuel

GeoZentrum Nordbayern, Universität Erlangen-Nürnberg, Erlangen 91054, Germany

Tue: 82 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **Detection, distribution and speciation of chemical elements with fast XRF mapping and micro X-ray absorption spectroscopy demonstrated for a TI containing ore**

Goettlicher, Joerg<sup>1</sup>; Spangenberg, Thomas<sup>1</sup>; Steininger, Ralph<sup>1</sup>; Voegelin, Andreas<sup>2</sup>; Penkert, Gabi<sup>3</sup>; Penkert, Peter<sup>3</sup>

<sup>1</sup>Institute for Photon Science and Synchrotron Radiation (IPS), KIT, D; <sup>2</sup>Eawag - Swiss Federal Institute of Aquatic Science and Technology, Duebendorf, CH; <sup>3</sup>Fröndenberg, D

Tue: 83 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **High resolution mineral-chemical analysis of scheelite from the Felbertal tungsten deposit, Austria**

Haupt, Cordula<sup>1</sup>; Schulz, Bernhard<sup>1</sup>; Krause, Joachim<sup>2</sup>; Aupers, Karsten<sup>3</sup>; Schmidt, Steffen<sup>3</sup>

<sup>1</sup>Technische Universität Bergakademie Freiberg, Institut für Mineralogie, Germany; <sup>2</sup>Helmholtz-Zentrum Dresden Rossendorf, Helmholtz-Institut Freiberg für Ressourcentechnologie, Germany; <sup>3</sup>WOLFRAM Bergbau und Hütten AG, Mittersill, Austria

Tue: 84 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **Quantification of minerals and valuable metals in drill cores from orogenic gold deposits by LIBS and $\mu$ -EDXRF**

Hornschu, Marko; Meima, Jeannette

BGR Hannover

Tue: 85 | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

## **Lower Group and Middle Group chromitites of the Bushveld Complex – the effect of weathering on the distribution of platinum-group elements**

Junge, Malte<sup>1</sup>; Bachmann, Kai<sup>2</sup>; Oberthür, Thomas<sup>3</sup>; Groshev, Nikolay Yu<sup>4</sup>

<sup>1</sup>Institute of Earth and Environmental Sciences, Albert-Ludwigs-University Freiburg, Germany; <sup>2</sup>Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, Germany; <sup>3</sup>Federal Institute for Geosciences and Natural Resources (BGR), Germany; <sup>4</sup>Geological Institute, Kola Science Centre, Russian Academy of Sciences, 184209 Apatity, Russia





**Tue: 86** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Field observations and mineralogical characterization of magnetite-skarn-occurrences in Isfahan Province, Central Iran**

Kropp, Nico<sup>1</sup>; Kamradt, Andreas<sup>1</sup>; Asadi Haroni, Hooshang<sup>2,3</sup>; Borg, Gregor<sup>1</sup>

<sup>1</sup>Economic Geology and Petrology Research Unit, Martin-Luther-University Halle-Wittenberg, Germany; <sup>2</sup>Department of Mining Engineering, Isfahan University of Technology, Isfahan 8415683111, Iran; <sup>3</sup>Centre for Exploration Targeting, Australian Research Council Centre of Excellence for Core to Crust Fluid Systems, School of Earth and Environment, The University of Western Australia, Crawley, WA 6009, Australia

**Tue: 87** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Geochemical analyses of stream sediments and morphological studies of gold micro-nuggets from the Carnon River Mining District, Cornwall**

Meyer, Nicolas; Borg, Gregor; Kamradt, Andreas

Economic Geology and Petrology Research Unit, Martin Luther University Halle-Wittenberg, Germany

**Tue: 88** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Granitic pegmatites and Nb-, Y-REE- and F-mineralization in the Las Chacras Batholith, Argentina**

Ribacki, Enrico<sup>1</sup>; Altenberger, Uwe<sup>1</sup>; Trumbull, Robert<sup>2</sup>; López de Luchi, Mónica<sup>3</sup>

<sup>1</sup>University of Potsdam, Institute of Geosciences; <sup>2</sup>Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences; <sup>3</sup>Instituto de Geocronología y Geología Isotópica, INGEIS (CONICET)

**Tue: 89** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Fluid-melt partitioning of Sn and W as function of the alumina saturation index of the granitic melt**

Schmidt, Christian; Romer, Rolf L.; Wohlgemuth-Ueberwasser, Cora C.; Appelt, Oona

Deutsches GeoForschungsZentrum (GFZ), Potsdam, Germany

**Tue: 90** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Spectral X-ray CT: A potential new analytical method for a 3-dimensional chemical characterization of ores.**

Sittner, Jonathan<sup>1</sup>; da Assuncao Godinho, Jose Ricardo<sup>1</sup>; Renno, Axel<sup>1</sup>; Cnudde, Veerle<sup>2</sup>

<sup>1</sup>Helmholtz Institute Freiberg for Resource Technology, Germany; <sup>2</sup>University of Ghent, Belgium

**Tue: 91** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Mn-mineralization in the iron ores from West-Crete (Greece)**

Alevizos, Georgios; Stratakis, Antonios; Galetakis, Michael

Technical University of Crete, Greece

**Tue: 92** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**New insights on Ag-Hg mineralization in the Anti-Atlas Precambrian belt: Case study of the Tassafté ore deposit, NE of the Saghro inlier (Eastern Anti-Atlas, Morocco)**

Yajjoui, Zakarya<sup>1</sup>; Badra, Lakhlifi<sup>1</sup>; Lima, Alexandre<sup>2</sup>; Krause, Joachim<sup>3</sup>; Karaoui, Brahim<sup>4</sup>; Mahmoudi, Abdelkader<sup>1</sup>

<sup>1</sup>Faculty of Sciences, Moulay Ismail University, Meknes, Morocco; <sup>2</sup>Departamento de Geociências, Ambiente e Ordenamento do Território, Faculdade de Ciências da Universidade do Porto, Portugal; <sup>3</sup>Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz-Institute Freiberg for Resource Technology, Chemnitz Straße 40, D-09599 Freiberg, Germany; <sup>4</sup>Department of Geology, Faculty of Sciences and Techniques, Moulay Ismail University, Errachidia, Morocco

**Tue: 93** | 12c) Mineralogy of Ore Deposits – Genesis, Characterization, and Applications

**Impact of IRUP on mineralogy and mineral chemistry of the UG2 chromitite in the Thaba mine, Bushveld Complex**

Zhou, Haoyang<sup>1</sup>; Trumbull, Robert<sup>1</sup>; Tjallingii, Rik<sup>1</sup>; Veksler, Ilya<sup>1,2</sup>

<sup>1</sup>GFZ German Research Centre for Geosciences, Telegrafenberg, 14473 Potsdam, Germany; <sup>2</sup>Institute of Geosciences, University of Potsdam, 14476 Potsdam-Golm, Germany

**Tue: 94** | 12d) Reuse Potential of Mining Residues

**Interdisciplinary study of mining residues and implications for secondary mining**

Nikonow, Wilhelm; Rammelmair, Dieter; Furche, Markus; Meima, Jeannet

Federal Institute for Geosciences and Natural Resources (BGR), Germany

**Tue: 95** | 13f) Research data and software management in times of FAIR and Open Data

**Building a Portal for Interdisciplinary Planetary Data**

Lehmann, Elfrun; Becker, Harry

Institute of Geological Sciences, FU Berlin, Germany

**Tue: 96** | 13f) Research data and software management in times of FAIR and Open Data

**V-FOR-WaTer – a virtual research environment to access and process environmental data**

Strobl, Marcus<sup>1</sup>; Azmi, Elnaz<sup>1</sup>; Hassler, Sibylle K.<sup>2</sup>; Mälicke, Mirko<sup>2</sup>; Meyer, Jörg<sup>1</sup>; Zehe, Erwin<sup>2</sup>

<sup>1</sup>Steinbuch Centre for Computing, Karlsruhe Institute of Technology (KIT), Germany; <sup>2</sup>Institute for Water and River Basin Management, Karlsruhe Institute of Technology (KIT), Germany

**Tue: 97** | 13f) Research data and software management in times of FAIR and Open Data

**The Metadata Editor of GFZ Data Services**

Ulbricht, Damian; Elger, Kirsten

GFZ German Research Centre for Geosciences, Potsdam, Germany

# Notes

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Past, **Present**, Future

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Past, **Present**, Future

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- » Sunday: 17:00 - 21:00
- » Monday: 08:00 - 18:00
- » Tuesday: 08:00 - 18:30
- » Wednesday: 08:00 - 15:00

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