TSK 20 **Monday 18.3.2024**

09.00 – 9:15	**Opening Ceremony**			
		Session chair: Kley, Riller		
09.15 – 12.05	**Oral sessions**	Mountain Building Processes & Alpine Tectonics		
	Keynote	**09:15**	**Handy**	**A fresh look at mountain-building from the Alpine perspective**
		09:55	Pomela	The Alpine cooling history of the eastern Southern Alps
		10:15	Sieberer	Exploring the impact of inherited structures on deformation and uplift in fold and thrust belts through multi-scale analogue modelling: a case study in the European eastern Southern Alps
10:35 - 11:05	**Coffee break**			
		11:05	Rudmann	Restoring the nappes of the western Tauern Window using thermochronological and petrological constraints
		11:25	Weber	Reprocessing of the NRP 20 traverse E1 in eastern Switzerland
		11:45	Kroner	Initial Collision of Gondwana Promontories with Forming Laurasia - The Orogenic Record of Western Pangea in the Devonian
12:05 – 13:05	**Lunch break (mensa)**			
		Session chair: Grasemann, Tanner		
13.05 – 17.35	**Oral sessions**	Geodynamics & Plate Tectonics		
	Keynote	**13:05**	**Behr**	**The influence of sediments on subduction dynamics.**
		13:45	Kaus	Gibraltar subduction zone is invading the Atlantic
		14:05	Hildebrand	Large-scale anatomy of a deep subduction megathrust: observations from the Cycladic Blueschist Unit on Syros, Greece
		14:25	Matthies	Insights into the deformation pattern and the edifice stability of oceanic volcanoes from direct shear experiments and finite-element models: A case-study of Anak Krakatau (Sunda Strait, Indonesia)

Monday 18.3.2024

		14:45	Nagel	Variations of Earth's volume driven by intermittend mantle stratification
15:05-15:35	**Coffee break**			
		Session Chair: Ustazewski/Hauber		
	Oral sessions	Applied Structural Geology		
	Keynote	**15:35**	**Schmatz**	**Salt rock mechanics in the natural laboratory**
		16:15	Svensson	Microstructural evolution of a 40 year old crushed salt backfill - Quantitative microstructural analysis
		16:35	Schäfer	Fault rocks and the energy transition: from oil and gas to carbon dioxide storage
		16:55	Abe	The “Restless”-Project: Investigating the impact of lithology on the risk of induced seismicity in deep geothermal reservoirs
		17:15	Hallas	Geochemical Classification of Thuringian Granites using Multi-Dimensional Scaling
		17:35	Scheck-Wenderoth	Deep thermal field in plate tectonics
19.00-20.00	**Public talk**		**Oncken**	Forschung für eine Erde im Wandel – von Erdbeben, schwarzen Schwänen und planetarer Bewohnbarkeit.

Tuesday, 19.3.2024

		Session chair: Pomella, Stipp		
09.00 – 12.10	**Oral sessions**	Experimental Rock Mechanics, Seismo-Tectonics		
	Keynote	**09:00**	**Dresen**	**Precursory Deformation and Earthquake Nucleation – Laboratory Results**
		09:40	Nevskaya	Implications for the strength of the Earth’s middle crust from novel experiments on natural fine-grained granitoid rocks
		10:00	Mudashev	Modeling of earthquakes in extensional tectonics
		10:20	Tajcmanova	Experimental investigation of serpentinite dehydration induced by earthquake-like pressure drops
10:40 - 11:10	**Coffee break**			
		11:10	Zhan	The Frictional-Viscous Transition in Experimentally Deformed Granitoid Fault Gouge
		11:30	Fusseis	Transformative insights into reacting, deforming rocks through operando x-ray imaging experiments - elastic stress control on fabric formation and fluid transport properties
		11:50	Peacock	Fracture corridors in crystalline rock and implications for geothermal resources
12:10 – 13:10	**Lunch break (mensa)**			
		Session chair: Kaus, Reicherter		
13.10 – 16.40	**Oral sessions**	Microstructures, Deformation Mechanisms & Rheology		
	Keynote	**13:10**	**DiToro**	**Fault processes and shock deformation during earthquakes.**
		13:50	Trepmann	Quartz cleavage fracturing and subsequent recrystallization along the damage zone recording fast stress unloading
		14:10	Poelchau	Shear stresses in experimentally shock-twinned calcite
		14:30	Müller	The crystallographic preferred orientations and structural anisotropies of felsic plutonites – First results of a comprehensive study of German granites
14:50-15:20	**Coffee break**			

Tuesday, 19.3.2024

		15:20	Kilian	On the control of quartz crystallographic preferred orientation development
		15:40	Nowak	Metamorphic record preserved in ultrahigh-pressure eclogites (Śnieżnik Massif, NE Bohemian Massif)
		16:00	Toffol	On-fault earthquake energy density partitioning recorded in seismically shocked garnet.
		16:20	Kley	New ideas from old observations: An example from the Leinetal graben
16:40-21:00	**Poster session**			

Wednesday, 20.3.2024

		Session chair: Trepmann, Fusseis		
09:00 – 12.30	**Oral sessions**	Planetary Tectonics & Impact Cratering		
	Keynote	**09:00**	**Rae**	**Dynamic strength, fragmentation, and the impact cratering process.**
		09:40	Eisermann	Testing different mechanisms of long-term crustal modification of large impact craters inferred from scaled analogue experiments
		10:00	Riller	Possible causes for the formation of sinkholes in post-impact strata of the Chicxulub crater, Yucatán Peninsula, Mexico
		10:20	Kenkmann	Structure of the marine target impact crater nadir inferred from 3D-seismics
10:40 - 11:10	**Coffee break**			
		11:10	Hauber	Neotectonic movements in Claritas Rupes region on Mars
		11:30	Karagoz	Tectonic history of the Tharsis Rise on Mars inferred from wrinkle ridges: multi-stage plume activation and critical taper dome
		11:50	Carboni	3D structural analysis of symmetric, asymmetric, and double-ridges wrinkle ridges on Mars
		12:10	Yazici	Fault scaling on the Reykjanes Peninsula (Iceland) as a Mars Analogue: Displacement-length relationship in comparison with Memnonia Fossae, Mars
12:30 – 13:30	**Lunch break (mensa)**			
		Session chair: Herwegh, Handy		
13.30 – 17.20	**Oral sessions**	Neo-Tectonics & Tectonic Geomorphology		
	Keynote	**13:30**	**Wolf**	**Quantifying the interaction between surface processes and tectonics during mountain building: the Beaumont number.**
		14:10	Hergarten	Theoretical and numerical considerations of faceted topographies at normal faults
		14:30	Reicherter	Paleoseismic studies of the estern Rhine Graben Faults (Germany)

Wednesday, 20.3.2024

		14:50	Castelnoe	Fault segmentation along the eastern margin of the Upper Rhine Graben by tectonic geomorphology
		15:10	Stemberk	The nowadays stress field changes recorded by 3-D extensometers TM-71 within the Upper Rhine Graben
15:30-16:00	**Coffee break**			
		16:00	Mair	Multi-Geophysical Imaging of Neotectonic Faults in the Northern Upper Rhine Graben
		16:20	Hürtgen	The Paleoseismic Database of Germany and Adjacent Regions PalSeisDB v2.0 - updated and extended
		16:40	Brandes	Deep crustal earthquakes in northern Germany
		17:00	Ferreira	Usage of UAV-based photogrammetry for quantifying the kinematics if first-order faults
	Quo vadis TSK	**17:20**		
19.30 – 22.00	**Conference Dinner**	Restaurant Dattler Schlossberg, Am Schlossberg 1, 79104 Freiburg		