



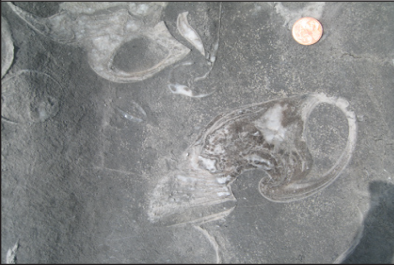
9th SWISS
GEOSCIENCE
MEETING
2011 ZÜRICH

11th-13th Nov 2011 ETH Zürich



Friday, 11th Nov
Plenary Session

Life and Planet Earth



Saturday, 12th Nov
Symposia, Workshops



Sunday, 13th Nov

**Special Symposium in honour of
Daniel Bernoulli and Albert Matter**

Welcome to Zürich and to the 9th Swiss Geoscience Meeting 2011

Dear Geoscientists

We cordially welcome you to our 9th Swiss Geoscience Meeting hosted by the Department of Earth Sciences at ETH in Zürich. The SGM is co-organised by our department, the Swiss Academy of Sciences and ETH Zürich.

The first Swiss Geoscience Meeting was held in Basel in November 2003. The principal initiators of the first SGM, Stefan Schmid and his colleagues at Basel University, could not yet foresee in 2003, that their idea to offer an annual discussion platform to Swiss Geoscientists would turn into such a success story. Geoscientists from all over Switzerland and neighbouring countries have since then taken the chance to meet once a year in November for an exchange of ideas at the SGM. Geology and Geography departments from major Swiss Universities including the University of Applied Sciences in Southern Switzerland hosted the Geoscience community over the last 8 years. The success of the SGMs over the last few years was made possible thanks to the continuous support of the Swiss Academy of Sciences SCNAT and its Platform Geosciences. On behalf of the local organizing committee, I want to express my sincere thanks to Pierre Dèzes (SCNAT). His strong commitment for the SGM made it possible that we can all meet here in Zurich today.

This year, we are expecting close to 700 participants, more than 380 abstracts for talks and posters have been submitted. The Zürich Meeting starts with a special symposium on "Life and Planet Earth". This symposium reminds us how life and the physical environment have been closely interconnected throughout Earth history and it will demonstrate again that a look into the history of our planet will sharpen our eyes for future challenges of a society aiming at truly sustainable development.

Saturday is devoted to special sessions covering a broad spectrum of Geosciences including fields like Phenology and Meteorology, Structural Geology and Petrology, Geographic Information Systems and the future of Geothermal energy. Sunday is reserved for a Special Symposium in honour of the 75th birthday of Albert Matter (Bern University) and Daniel Bernoulli (ETH Zürich). Both made major contributions to the fields of sedimentology and Alpine geology over the last few decades. The speakers invited to this symposium will give us an insight into this exciting and dynamic field of research.

In the name of the organizing committee I also sincerely thank ETH Zürich for the strong support we received, and I give a warm thank you to all the many student helpers, the administrators and the technical staff of ETH who are helping us to make this meeting a success. And, last but not least, I like to thank all you participants contributing to an exciting and stimulating meeting.

On behalf of the organizing committee,

Helmut Weissert

Local committee

Helmut Weissert, President SGM 2011
Peter Ulmer, Finances, Exhibitors
Eric Reusser, Infrastructure
Peter Brack, Infrastructure
Neil Mancktelow, Catering
Peter Bayer, Assistants
Florian Kober, Program booklet
Stefano Bernasconi, Program
Alain Geiger, Program
Paul Tackley, D-ERDW
Silvia Kos-Ahrer, Administration
Ursi Brupbacher, Administration II
Karl Föllmi, Sunday Symposium

Exhibitors (see also back page)

Comsol
SwissTopo/SGTK
CHGEOL
SGG (Swiss Geological Society)
Silag
Eijkelkamp Agrisearch Equipment BV
IODP – Swiss Drilling
SCNAT / Platform Geosciences
Tetraedre SARL

9th Swiss Geoscience Meeting, Zurich 2011

**Friday 11th to Sunday 13th November 2011:
ETH Hauptgebäude & Department of Earth Sciences,
ETH Zurich**

The 9th edition of the Swiss Geoscience Meeting will focus on the latest advances in research in geosciences. It will be held 11th to 13th November 2011 in Zurich.

The Department of Earth Sciences of the Swiss Federal Institute of Technology Zurich (ETH Zurich) and the Platform Geosciences of the Swiss Academy of Sciences (SCNAT) cordially invite you to participate in the 9th Swiss Geoscience Meeting to be held this year in Zurich.

On Friday 11th, keynote presentations will focus on this year's theme "Life and Planet Earth". **Alex Halliday** from Oxford University will start with a presentation on the birth of planet Earth, **Lee Kump** from Penn State University and author of the book "The Earth System" will trace the co-evolution of life and the physical environment, **Norman MacLeod** from the Natural History Museum in London will focus on major biotic extinctions in Earth history, **Antje Boetius** from the Max Planck Institute in Bremen will discuss how microbes survive in extreme environments. The last speaker of the symposium, **Dieter Imboden**, President of the Research Council of the Swiss National Science Foundation (SNSF) will focus on sustainability, life and planet Earth in the 21st century.

On Saturday 12th, a series of scientific symposia will cover the diverse spectrum of current research in geoscience, encompassing the lithosphere, the hydrosphere, the cryosphere, the biosphere, the atmosphere and the anthroposphere.

On Sunday 13th, a special symposium will be held in honour of the 75th birthday of Daniel Bernoulli, Professor emeritus ETH Zurich and Albert Matter, Professor emeritus Bern University. Most of the invited speakers are former students or collaborators of Dani Bernoulli and Albert Matter. The symposium will provide an overview of the state of the art both in sedimentology and sedimentary tectonics, especially with regards to the Alps and Molasse basin, as well as in paleoclimatology and paleoceanography in general. Poster submissions for this special symposium are very welcome!

The SGM also provides the ideal environment to foster informal contacts and discussion between scientists, in particular during the Swiss Geoscience Party on Friday evening but also at the poster sessions on Saturday in the main hall of the venue (*focusTerra*). Time is reserved for two poster sessions, at which the authors will be present for active discussion and feedback.

Looking forward to seeing you in Zurich!

The SGM 2011 Organizing Committee.

9th Swiss Geoscience Meeting, Zurich 2011

Life and Planet Earth

PLENARY SESSION, Friday November 11th Audi Max, ETH Hauptgebäude, Zurich

Chairperson: Helmut Weissert

13:30 - 13:50	<ul style="list-style-type: none"> • Introduction to the Symposium • Welcome Address by the Rector of ETH Zurich 	Helmut Weissert Heidi Wunderli-Allenspach
13:50 - 14:25	<ul style="list-style-type: none"> • The origin of the Earth and its volatiles 	Alex Halliday Oxford University
14:25 - 15:00	<ul style="list-style-type: none"> • Emergence of an Aerobic Biosphere during the Archean-Proterozoic Transition 	Lee Kump Penn State University
15:00 - 15:35	<ul style="list-style-type: none"> • 'Mass Extinctions' in the Geological Record: Causes and Consequences 	Norman MacLeod The Natural History Museum, London

15:35 - 16:00 *Coffee break*

Chairperson: Paul Tackley

16:00 - 16:35	<ul style="list-style-type: none"> • Geosphere-Biosphere Interactions: Methane-based life at the ocean floor 	Antje Boetius Max Planck Institute, Bremen
16:35 - 17:10	<ul style="list-style-type: none"> • Will research save planet Earth? 	Dieter Imboden Swiss National Science Foundation

17:10 - 17:30 *Short break*

17:30 - 18:30	<ul style="list-style-type: none"> • Communications Platform Geosciences • Presentation SGM 2012 in Bern • Swiss Geological Web Portal • Erlebnis Geologie + Festival 2013 • Swiss Geological Society Award • CHGEOL Award 	Bruno Schädler Bruno Schädler Nils Oesterling to be nom. Neil Mancktelow Daniele Biaggi
18:45 - 22:00	<ul style="list-style-type: none"> • Swiss Geoscience Party (food, drinks and rejoicing) for registered participants of SGM 	Focus Terra

Symposium Sessions, Saturday November 12th

ETH-Z, NO-Gebäude & ML Gebäude, Zurich

1. Structural Geology, Tectonics and Geodynamics.
2. Mineralogy-Petrology-Geochemistry
3. Low-Temperature Isotope Geochemistry
4. Perspectives on batholith formation and evolution in 4D
5. Geomorphology
6. Quaternary Research
7. *Understanding and evaluation of soil functions (CANCELED)*
8. Hydrology and Sustainable Water Resources Management in View of Global Changes
9. Open Cryosphere Session
10. Meteorology and Climatology
11. Greenhouse Gases: Linkages between Biosphere and Climate
12. Natural or man-made mineral dust and its influence on humans, environment and climate
13. Phenology and Seasonality
14. Traces of life on planet Earth: A tribute to the late Professor Lukas Hottinger
15. Geoscience and Geoinformation - From data acquisition to modelling and visualisation
16. Earth System Science related Earth Observation
17. Synergies between Advancements in Geodesy and other Geosciences
18. Advances in GIScience and Remote Sensing
19. *Natural geohazards (CANCELED)*
20. Deep Geothermal Energy
21. Geophysics and Rockphysics

SYMPOSIA SESSIONS, ROOMS, TIMES - SATURDAY 12th

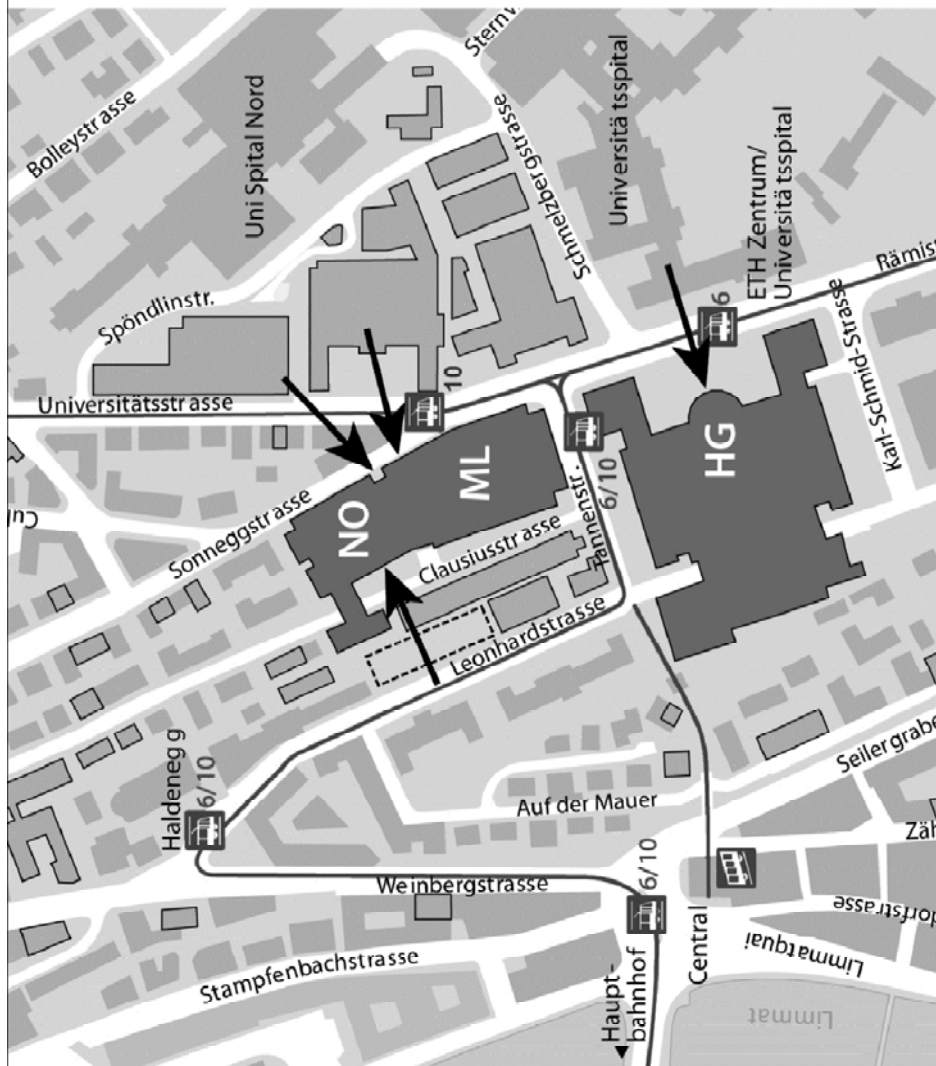
Room	Session	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
ML D 28	1 Structural Geology, Tectonics and Geodynamics										
ML H 44	2 Mineralogy-Petrology-Geochemistry						S S S				
NO D 45	3 Low-Temperature Isotope Geochemistry										
ML H 37.1	4 Perspectives on batholith formation and evolution in 4D										
NO C 44	5 Geomorphology										
NO C 60	6 Quaternary Research										
ML F 39	8 Hydrology and Sustainable Water Resources Management in View of Global Changes						S S A A A				
NO C 6	9 Open Cryosphere Session									A	
ML H 41.1	10+11 Meteorology/Greenhouse gases					S S S					
NO D 11	12 Natural or man-made mineral dust and its influence on humans, environment and climate										
NO D 39	13 Phenology		S S								
ML F 38	14 Traces of life on planet Earth: A tribute to the late Professor Lukas Hottinger									A A	
ML E 12	15 Geoscience and Geoinformation - From data acquisition to modelling and visualisation										
ML F 34	16+18 Earth System Science related Earth Observation										
ML H 41.1	17 Synergies between Advancements in Geodesy and other Geosciences										
ML F 36	20 Deep Geothermal Energy										
ML F 36	21 Geophysics and Rockphysics										
			Presentations		Poster	A	Award	S	Session Meeting		

Locations

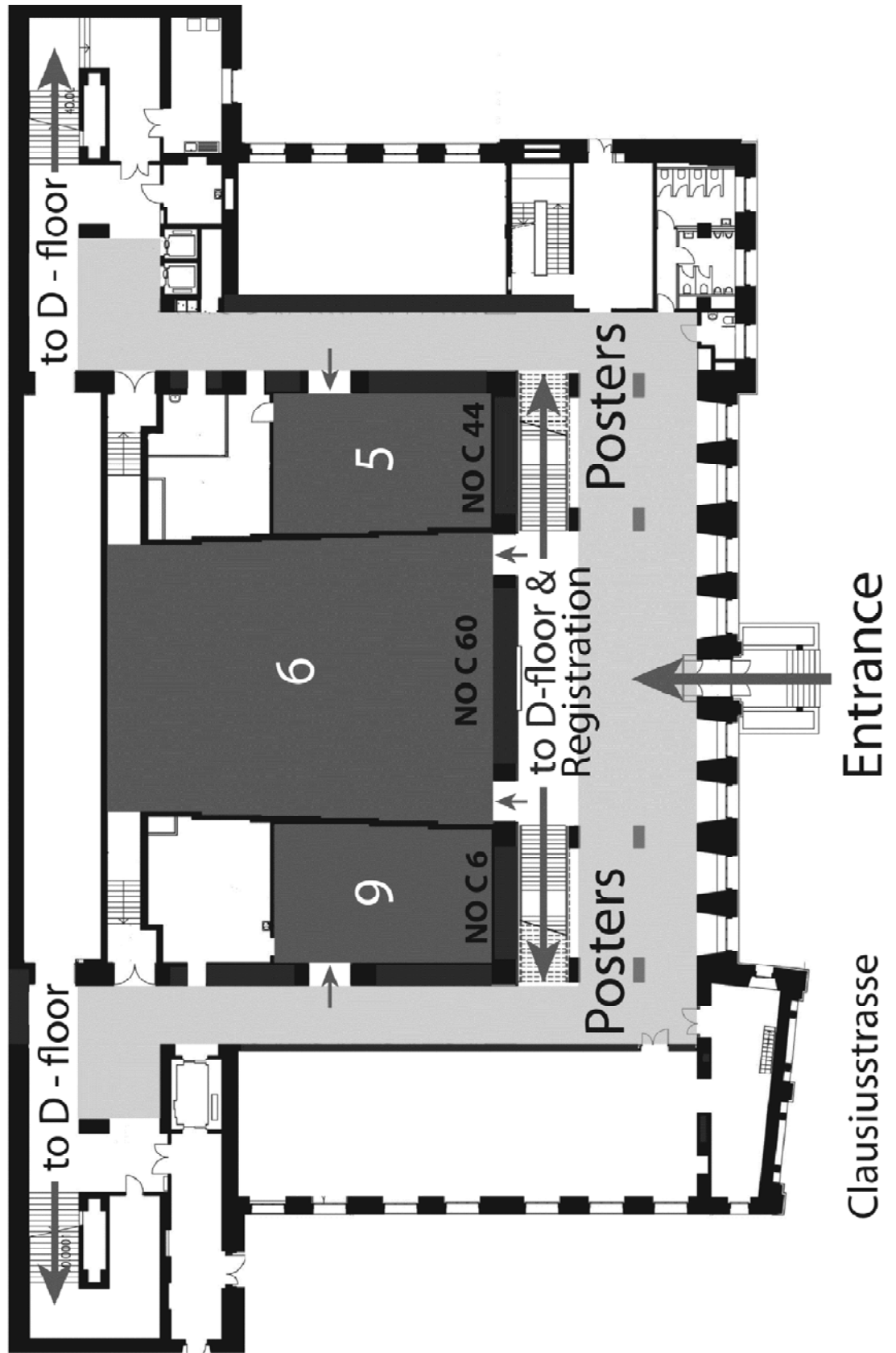
Registration: Friday HG
Saturday & Sunday NO

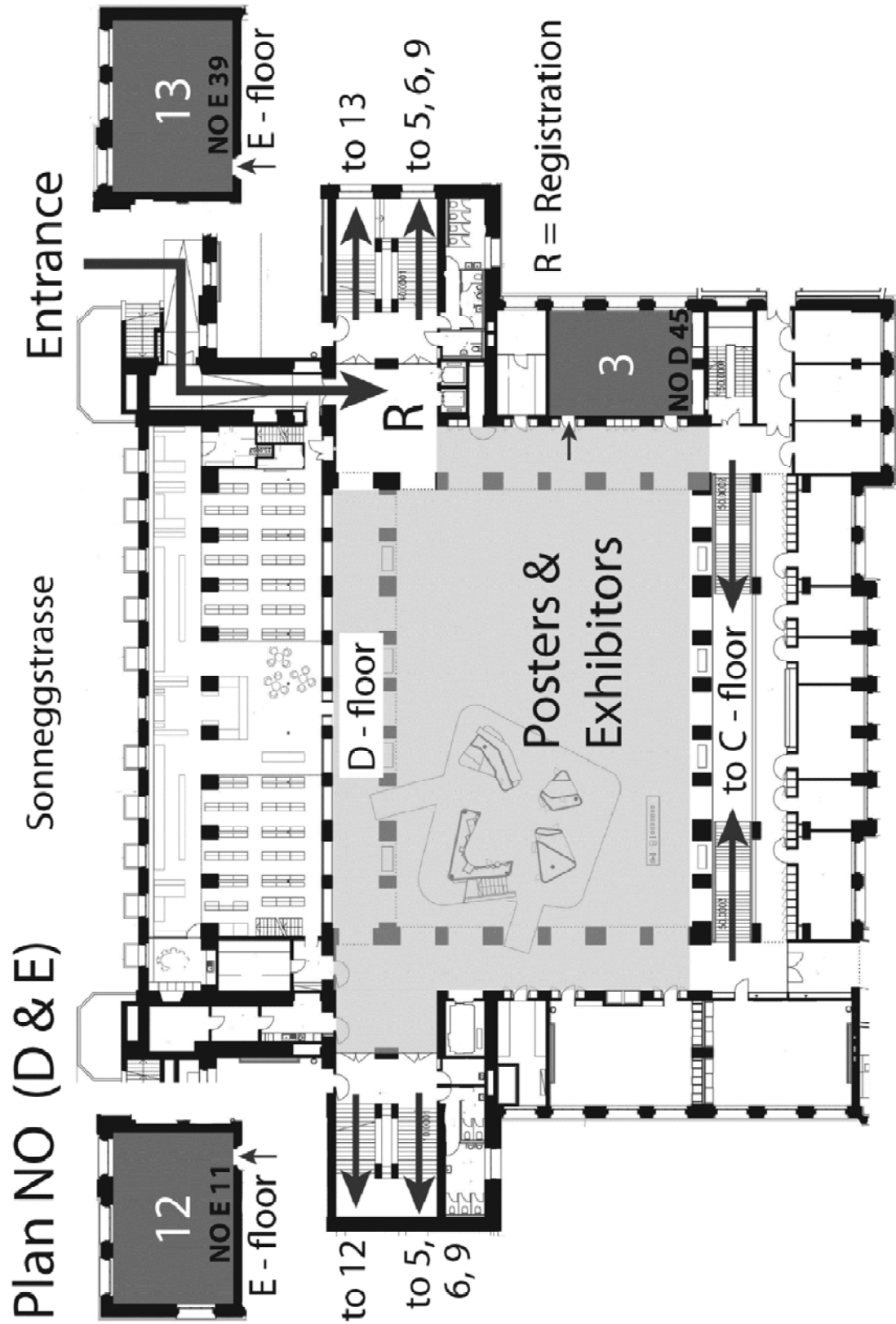
Friday Symposium HG
Saturday Meeting NO & ML
Sunday Symposium NO

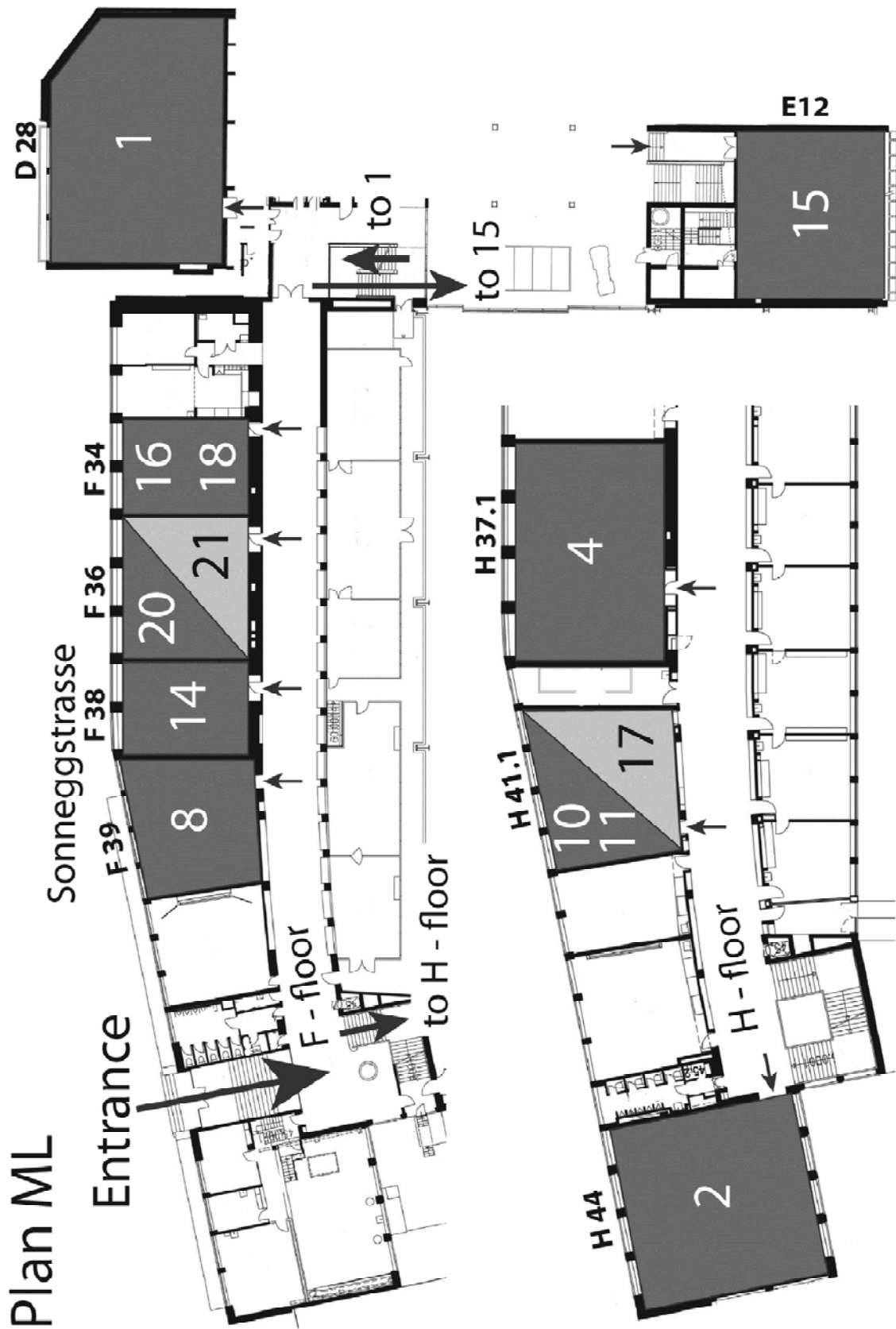
Tram 6 & 10 from Zurich Mainstation



NO - Building (C - floor)







Session Program Saturday

Session 1: Structural Geology, Tectonics and Geodynamics. Room ML D 28

Convenors: Neil Mancktelow, Guido Schreurs, Paul Tackley

Chair: Paul Tackley

08:30-08:45 Gerya, T.

3-D numerical modelling of oceanic spreading initiation

08:45-09:00 Crameri F., Tackley P., Meilick I., Gerya T., Kaus B.

Causes of single-sided subduction on Earth

09:00-09:15 Rolf, T., Coltice, N., Tackley, P.

Thermal evolution in a spherical convection model with plate generation and mobile continents

09:15-09:30 Lechmann S. M., May D. A., Kaus B. J. P., Schmalholz S. M., Hetényi G.

Comparing thin-sheet to fully 3D models with application to the India-Asia collision

09:30-09:45 Frehner, M.

The neutral lines in buckle folds

09:45-10:00 Ruh J., Kaus B.J.P., Burg J.-P.

Effect of single and multiple décollement layers on thrusting dynamics in fold-and-thrust belts

10:00-11:00 Morning Poster Session with coffee

Chair: Guido Schreurs

11:00-11:15 Pfiffner O. Adrian

Structure of the Helvetic nappe system of the Swiss Alps and adjoining France and Austria.

11:15-11:30 Bauville A., Epard J.-L., Schmalholz S.

A simple thermo-mechanical shear model for the Morcles fold nappe

11:30-11:45 Peters M., Herwegh M., Wehrens P.

Spatial distribution of quartz recrystallization microstructures across the Aar massif

11:45-12:00 Härtel M., Herwegh M.

Linking titanium-in-quartz thermometry and quartz microstructures: strong evidence of continued vein formation during strain localization

12:00-14:00 Lunch

Chair: Neil Mancktelow

14:00-14:15 Pec M., Stünitz H., Heilbronner R.

Slow pseudotachylites

14:15-14:30 Baillieux P., Schill E., Moresi L.

Development of permeable structures in Graben systems – geothermal reservoirs in the Upper Rhine valley

14:30-14:45 Pirouz M., Simpson G., Bahroudi A., Azhdari A.,

Neogene sediments and modern depositional environments of the Zagros foreland basin system

14:45-15:00 Antić M., Kounov A., Trivić B., Peytcheva I., von Quadt A., Gerdjikov I., Serafimovski T., Tasev G.

Unravelling of continued magmatic activity along the Serbo-Macedonian massif since the Precambrian (south Serbia, southwest Bulgaria and Macedonia)

15:00-16:00 Afternoon Poster Session with coffee

Chair: Jean-Pierre Burg

16:00-16:15 Reitsma M., Spikings R., Schaltegger U., Ulianov, A.

A late Paleozoic back-arc basin on the western Gondwana margin: age and geodynamic setting of Permo-Carboniferous sedimentary rocks of South-East

		Peru.
16:15-16:30	Buchs D., Bagheri S., Martin L., Hermann J., Arculus R.	The role of seamount subduction in the evolution of convergent margins: constraints from the Paleozoic Tethys suture zone in Iran
16:30-16:45	Van der Lelij R., Spikings R., Ulianov A., Chiaradia M.	Did Laurentia and Gondwana play terrane tennis in the Palaeozoic? The implications of a Iapetus convergent margin in the Merida Terrane, Venezuela
16:45-17:00	Cochrane R., Spikings R., Wotzlaw J.	Apatite ID-TIMS U-Pb Thermochronology: An example from southern Ecuador.
17:00-17:15	Ruiz, G.M.H., Negro, F., Babault, J., Frizon de Lamotte, D., Stuart, F., Stockli, D., Foeken, J., Thomsen, T.	Tectono-thermal evolution of the Atlas system (SW Morocco), insights from low-temperature thermochronology and Raman spectroscopy on carbonaceous material

Posters Session 1:**Room NO D-floor – Focus Terra****Global & Planetary**

1.A.1	Leone G., Gerya T., Tackley P.J., Moore W.B.	Evidence of transition tectonic regime as seen at Hi'iaka and Zal regions on Io.
1.A.2	Li Y., Deschamps F., Tackley P.J.	Thermo-chemical convection in spherical geometry: influence of core's size
1.A.3	Tackley P., Ammann M., Brodholt J., Dobson D., Valencia D.	Effect of rheology on mantle dynamics and plate tectonics in super-Earths
1.A.4	Yao C., Deschamps F., Tackley P., Sanchez-Valle C.	Thermal convection in the outer layer of icy satellites

Subduction, Lithosphere-scale

1.B.1	Baitsch Ghirardello B., Nikolaeva K., Stracke A., Gerya, T.V.	Pb, Sr and Nd in intra-ocean subduction zone: 2D geochemical-thermo-mechanical modeling
1.B.2	Duretz T., Gerya T.V., Spakman W.	Long term evolution of subduction-collision systems: numerical modelling
1.B.3	Liao J., Gerya T.	Extension of chemically stratified mantle lithosphere: numerical modeling
1.B.4	May D. A.	Decoupled and coupled multilevel preconditioners for problems in elasticity and variable viscosity Stokes flow
1.B.5	Zhu G., Gerya T., Tackley P., Kissling E.	Crustal Growth at Active Continental Margins : Numerical studies

Shear zones etc.

1.C.1	Kilian R., Heilbronner R., Stünitz H.	Quartz microstructures and crystallographic preferred orientation: which shear sense do they indicate?
1.C.2	Maeder X., Trullenque G., Drury M., De Bresser H.	Texture development and hybrid deformation mechanisms in fine grained calcite aggregates deformed in direct shear: constraints from electron backscatter diffraction analysis
1.C.3	Maeder, X., Ghisleni R., Michler J.	Plastic deformation of quartz micropillars under uniaxial compression at room temperature

1.C.4	Maeder, X., Schmalholz S., Bauville A.	Control of temperature, pressure gradient and flow law on the formation of crustal-scale shear zones: results from 1D thermo-mechanical modeling
1.C.5	Misra S., Burg J.-P.	Mechanics of kink-bands during torsion deformation of muscovite aggregate
1.C.6	Pleuger J., Zwingmann H., Manser M. & Mancktelow N.	K-Ar dating of some synkinematic clay fault gouges from Nealpine faults
1.C.7	Précigout J., Hirth G.	The Origin of Olivine B-type Fabric in naturally deformed Peridotite: insight from the Ronda large-scale Mantle Shear Zone (Spain)
1.C.8	Thielmann M., Rozel A., Kaus B., Ricard Y.	Grain size evolution in 2D numerical simulations: Implications for lithospheric localization
Alpine Studies		
1.D.1	Abednego M. & Vouillamoz N., Wust-Bloch H.G., Mosar J.	Nano-seismology on the Fribourg Lineament - Switzerland
1.D.2	Beltrán-Triviño A., Winkler W., von Quadt A.	Triassic magmatism recorded by detrital zircons in pre-alpine sedimentary units
1.D.3	Campani M., Mulch A., Kempf O., Schlunegger F. & Mancktelow N.	Paleotopography of the Miocene European Central Alps
1.D.4	Cardello G.L., Mancktelow N.	Fault architecture at the brittle-ductile transition in sedimentary rocks – examples from the SW Helvetics (Swiss Alps)
1.D.5	Egli D., Mancktelow N.	Dextral movements between the Pennine Front and Mont Blanc massif in the Courmayeur area
1.D.6	Mauri G., Negro F., Abdelfettah Y., Vuataz F.-D., Schill E.	Multi-disciplinary study for the exploration of deep low enthalpy geothermal reservoirs, Neuchâtel, Switzerland
1.D.7	Psimoulis P., Feng L., Newman A., Stiros, S., Moschas F., Lycourghiotis S., Farmer G.	Strong rupture and postseismic response of the 8 June 2008 Achaia-Elia earthquake in Western Peloponnese, Greece
1.D.8	Ragusa, J., Ospina-Ostios, L.M., & Kindler, P.	Fault-controlled formation of a primary turbiditic channel within the Gurnigel Flysch at the Voirons Massif (Haute-Savoie, France) during the Late Eocene.
1.D.9	Scheiber T., Pfiffner O.A., Schreurs G.	Large-scale geometry and structural evolution of the Bernhard nappe complex, Valais, Switzerland
1.D.10	von Tscharner M., Schmalholz S.	3D FEM modeling of fold nappe formation in the Western Swiss Alps
Extra-Alpine Studies		
1.E.1	Bagheri S., Madhani-Fard R., Zahabi F., Javadi-Zadeh L.	Kinematics of Doruneh Fault in central Iran: two different behaviors since Eocene time
1.E.2	Bejaoui J., Samaali M., Baccouche S., Reguigui N., Ben Hamouda M. F., Azzouz Z., Trabelsi A., Bouhlef S. & Salim B.	New information on radionuclides concentration in phosphorites originating from Tunisia and Algeria
1.E.3	Bouilhol P., Jagoutz O., Hanchar J.M., Dudas F.O.	Constraining collision events through arc magmatic record: The India / Arc / Asia collision
1.E.4	Buchs D., Baumgartner P., Pilet S., Cosca M., Flores K., Bandini A.	Petit-spot-like volcano exposed in Costa Rica

1.E.5	Eugster P., Nagel S., Castelltort S., Kaus B. J. P.	Basin Dynamics in Taiwan
1.E.6	Haghipour N., Burg J-P., Kober F., Zeilinger G., Ivy-Ochs S., Kubik P., Faridi M.	Active crustal shortening in the Makran Accretionary Wedge (SE, Iran) revealed by deformed fluvial terraces
1.E.7	Kais Aridhi , Sabri Aridhi , Mohamed Abdoullah Ould Bagga , Saâdi Abdeljaouad , Fouad Zargouni and Eric Mercier	Paleogeographical restoration and ramp tectonic evidence in Tunisian Tellian domain: Ain El Bey-Bou Awen area (northwestern Tunisia).
1.E.8	Mandal S K., Burg Jean-Pierre., Haghipour, N.	Link between topography and large-scale tectonics of Southern India: A preliminary study based on river profile analysis
1.E.9	Ruiz, G.M.H.	Direct versus indirect thermochronology: What do we truly trace? An example from SE Peru and its implication for the geodynamic development of the Andes
1.E.10	Tin Tin N., Winkler W., Mario N., Albrecht von Q.	Provenance studies in sands and sandstones from the Bay of Bengal, Myanmar

Session 2: Open Session in Mineralogy-Petrology-Geochemistry
Room ML H 44

Convenor: Bernar Grobéty

Chair: Bernard Grobéty

08:30-08:45	Mewes K., Picard A., Rühlemann C., Kuhn T., Kasten S.	Biogeochemical processes in sediments of the manganese nodule belt in the equatorial NE Pacific Ocean
08:45-09:00	Buret Y., Kouzmanov, K.	Polymetallic mineralization in the Laki mining district Southern Bulgaria: Paragenesis and fluid evolution
09:00-09:15	Greber N.D., Hofmann B.A., Pettke T., Voegelin A.R., Villa I.M., Nægler T.F.	Mo isotope composition of Mo-rich hydrothermal systems in the Aar Massif
09:15-09:30	Moritz R., Mederer J., Ovtcharova M., Selby D., Chiaradia M., Popkhadze N., Gugushvili V., Migineshvili R., Melkonyan R., Tayan R., Vardanyan A., Havokimyan S., Ramazanov V., Mansurov M.	Major Cu, Au and Mo deposits of the Lesser Caucasus: Products of diverse geodynamic settings
09:30-09:45	Mederer J., Moritz, R.	The Kapan zone of the Somkheto-Karabakh island arc in the Lesser Caucasus: magmatism and ore deposits associated with Neotethys subduction
09:45-10:00	El Korh A., Schmidt S.Th., Vennemann T., Ulianov A.	Evidence for trace element mobilisation in garnet-phengite eclogitic veins along a metabasite-micaschist contact during HP conditions: an example from the Ile de Groix, France
10:00-11:00	Morning Poster Session with coffee	
		<i>Chair: Bernard Grobéty</i>
11:00-11:15	Seifert R., Malfait W.J., Petitgirard S., Sanchez-Valle C.	Density of alkaline magmas at crustal and upper mantle conditions by X-ray absorption
11:15-11:30	Hunziker D., Burg J.-P., Bouilhol P., Omrani J.	Percolation and impregnation of a plagioclase-rich melt into the mantle-crust transition zone of the Makran ophiolites, SE Iran
11:30-11:45	Ardia P., Withers A.C., Hirschmann M.M., Hervig R.L.	C-O-H solubility under reduced conditions in a haplobasaltic liquid: implications for Mars degassing
11:45-12:00	Wotzlaw J.F., Schaltegger, U., Frick D.A., Hüsing S.K., Bindeman, I.N., Hilgen, F.J., Günther D.	Application of high-precision U-Pb geochronology to igneous petrology and stratigraphy: Potential and limitations
12:00-12:15	Charilaou M., Löffler J.F., Gehring A.U.	Probing solid-solution formation via magnetic freezing dynamics
12:15-14:00	Lunch	
		<i>Chair: H.B. Mattson</i>
14:00-14:15	Bouvet de Maisonneuve C., Dungan M., Bachmann O., Burgisser A.	Petrological insights into shifts in eruptive styles at Volcán Llaima (Chile)

14:15-14:30	Mattsson H.B., Bosshard, S.A.	Pyroclast textures in the explosive 2007-2008 eruption of Oldoinyo Lengai, Tanzania: Implications for magma ascent and fragmentation
14:30-14:45	Marsala A., Wagner T., Wälle M., Heinrich C.	Mass transfer processes and fluid composition of metamorphic quartz vein systems, Rhenish Massif (Germany)
14:45-15:00	Martinek K., Wagner T., Wälle M., Heinrich Ch.	Fluid chemistry and fluid-rock interaction of Alpine veins, Central Alps
15:00-16:00	Afternoon Poster Session with coffee	
		<i>Chair: Lukas Baumgartner</i>
16:00-16:15	Mullis J., Tarantola A.	PVTX evolution and reequilibration of prograde and retrograde fluid inclusions in diagenetic and metamorphic rocks, Central Alps, Switzerland.
16:15-16:30	Miron G.D., Wagner T., Wälle M., Heinrich C.A.	Fluid composition and mineral equilibria in low grade metamorphic rocks, Bündnerschiefer, Switzerland. Application of fluid inclusions and petrological modeling.
16:30-16:45	Baumgartner L.P., Floess D., Podladchikov Y., Foster C.T.	Some consequences of mechanical and diffusional closure in garnets
16:45-17:00	Gasser, D., Bruand, E., Rubatto, D., Stuewe, K.	The behaviour of monazite: a petrological, trace element and SHRIMP U-Pb study of greenschist facies phyllites to anatectic gneisses, Chugach Metamorphic Complex, Alaska

Posters Session 2:**Room NO D-floor – Focus Terra**

2.1	Arlaux Y., Poté J., Thévenon F., Loizeau J.-L.	Recent increase in Uranium Concentration in Lake Geneva Sediments: increased Inputs or enhanced chemical Precipitation?
2.2	Banerjee S., Robyr M.	Monazite and Allanite's textural evolution from lower to higher grade pelites of Miyar Valley, NW India
2.3	Berghuijs J.F., Mattsson H.B.	Explosion intensities and fragmentation modes of the Loolmurwak and Eledoi maar volcanoes, Lake Natron – Engaruka monogenetic field, northern Tanzania
2.4	Beridze T., Khutsishvili S., Popkhadze N., Moritz R., Gugushvili V.	Stratigraphy and sedimentology of the Cretaceous host-rocks of the Madneuli gold-polymetallic deposit, Lesser Caucasus, southern Georgia, A new approach
2.5	Felix H., Mullis J.	Evolution of composition, temperature and pressure of fluid inclusions through the NEAT Lötschberg base tunnel
2.6	Fulda D.	Geology of Piz Duan: an oceanic sequence in the Avers schists, Grisons
2.7	Gauthiez L., Bussy F., Ulianov A., Gouffon Y., Sartori M.	Ordovician mafic magmatism in the Métailler Formation of the Mont-Fort nappe (Middle Penninic domain, western Alps) – geodynamic implications
2.8	Hashemi Azizi S.H., Mirab Shabestari G.R., Khazaei A.R.	Geochemistry of Paleocene-Eocene limestones from Ching-dar syncline, west of Birjand, east of Iran
2.9	Hauser A., Müntener O.	New age constraints on the opening of the Piemont-Ligurian Ocean (Tasna-Nauders area, CH-A)

2.10	Hovakimyan S.	Origin and Paleotectonic Conditions of Formation of Ore-Containing Fractures of the Lichk-Aygedzor Ore Field of Southern Armenia, Lesser Caucasus
2.11	Hunziker D., Burg J.-P., Reusser E., Caddick M., Grolimund D.	The influence of bulk and mineral ferric/ferrous ratios on thermobarometry of the Syros/Sifnos blueschists: Towards a new thermodynamic model for high pressure amphiboles
2.12	Kayani S.-A.	X-ray diffraction and thermal analyses of a bangle shard from an Indus valley settlement
2.13	Klumb A., Franz L., Wetzel A. & de Capitani C.	Petrographic and sedimentologic investigations of boulders of the river Wiese (southern Baden-Württemberg, FRG)
2.14	Martin L.H.J., Schmidt M.W., Hametner K., Mattsson H.B., Günther D.	Element partitioning between immiscible carbonatite- and silicate melts from 1-3 GPa
2.15	McCarthy A., Müntener O.	The Petrology and Geochemistry of the Civrari-Southern Lanzo Ophiolite, Piemonte, Western Italian Alps
2.16	Mert M., Mercan S., Gurler A.S., Sahin M.F., Aksoy N., Durmus K.,	Crime Scene Investigation And Forensic Mineralogy Applications At Gurpinar (Istanbul – Turkey) Murder
2.17	Monsef I., Rahgoshay M.	Geochemistry and petrogenesis of the Dehsheikh Peridotitic Massif (South of Iran)
2.18	Monsef R., Emami M. H., Rashidnejad Omran N.	Sr, Nd, and Pb isotopic constraints on the origin of the central Iran linear volcanic chains
2.19	Moulas E., Misra S., Burg J.-P., Kostopoulos D.	Na-bearing garnets with oriented lamellar inclusions – are those majorite precursors? A case study from the Rhodope Massif (Greece)
2.20	Müller F., Mullis J.	Investigations of fluid inclusions in quartz crystals in the dolomitic rocks of the Binn-Valley, Switzerland
2.21	Nievergelt, P.	Stratigraphic successions in the Avers unit, southern Grisons, and comparison with the Tsaté nappe, W Alps
2.22	Ortelli M., Kouzmanov K., Wälle M.	Minor and trace elements controlling the visible and near-infrared light transmittance of wolframite, pyrite and enargite
2.23	Popkhadze N., Beridze T., Moritz R., gugushvili V., Khutsishvili S.	Main volcano-sedimentary Lithofacies at the Cretaceous Madneuli copper-gold polymetallic deposit, Lesser Caucasus, Georgia
2.24	Serneels V., El Kateb A.	Provenance of imported basaltic millstones in Switzerland during Roman times.
2.25	Siegel K., Wagner T., Trumbull R., von Quadt A., Jonsson E., Heinrich C. A.	Isotope geochemistry of the Varuträsk pegmatite (northern Sweden)
2.26	Tayan R., Harutyunyan M., Hovakimyan S.	Main Features of the Tectonic Pattern of the Zangezour Ore District of Southern Armenia, Lesser Caucasus
2.27	Tomé C.M., Tornos F., Seo J.H.	Fluid inclusion evidence for magmatic-metamorphic fluid interaction in the copper-gold Sultana deposit at Huelva, Spain
2.28	Tornare E., Müntener O.	Dunite formation in the Lanzo peridotites, Italy: a morphological, petrological and geochemical study.
2.39	Tumarkina E., Podladchikov Y.,	The coupling of deformation and reaction kinetics in

	Connolly J.A.D.	the case of positive volume change reactions
2.30	Vardanyan A.	Geological Setting of the Drmbon Copper-Gold Deposit, Nagorno Karabakh Republic, Lesser Caucasus
2.31	Zurfluh F., Hofmann B., Gnos E., Eggenberger U., Preusser F.	When did the large meteorite shower Jiddat al Harasis 091 arrive on Earth?

Session 3: Low-Temperature Isotope Geochemistry Room NO D 45

Convenors: Andrea Voegelin, Elias Samankassou

Chair: Elias Samankassou

09:00-09:20	Giorgioni M., Weissert H., Bernasconi S., Hochuli P., Coccioni R., Keller C.	Late Albian Carbon Isotope Stratigraphy and new Insights into mid-Cretaceous Paleoceanography
09:20-09:40	Kocsis L., Gheerbrant E., Mouflih M., Cappetta H., Ulianov A., Amaghaz M.	Geochemical composition of marine vertebrates from Sidi Chenanne (Ouled Abdoun Basin, Morocco)
09:40-10:00	Grauel, A. L., Schmid T. W., Hu B., Bergami C., Capotondi L., De Lange G. J., Zhou L., Bernasconi S. M.	Calibration and application of the 'clumped-isotope' thermometer to foraminifera for high-resolution climate reconstructions of the last 500 years from the Mediterranean Sea
10:00-10:20	Millán M.I., Bernasconi S.M., López-Horgue M.A., Iriarte E., Weissert H.	Clumped isotope analysis of Pozalagua hydrothermal dolomite system (N Spain)

10:20-11:00 Morning Poster Session with coffee

Chair: Igor Villa

11:00-11:20	Wille M., Sutton J., DeLeon A., Ellwood M., Eggins S., Maher W.	Invited: Silicon isotopic fractionation in marine sponges: A model for understanding silicon isotopic variations in sponges
11:20-11:40	Nägler T.F., Neubert N., Böttcher M.E., Dellwig O., Schnetger B.	Molybdenum scavenging from anoxic waters of the modern Black and Baltic Seas
11:40-12:00	Voegelin, A. R., Nägler, T. F., Neubert, N., Heri, A. R., Pettke, T., Schlunegger, F., Steinmann, M., Pourret, O., Villa, I.M.	Molybdenum isotopes in river water: sources, fractionation processes and their importance for Mo cycling in the marine environment

12:00-14:00 Lunch

Chair: Igor Villa

14:00-14:20	Pretet C., Nägler T.F., Villa I.M., Böttcher M.E., Samankassou E.	Barium isotope fractionation in carbonates
14:20-14:40	Jiskra M., Wiederhold J.G., Bourdon B., Kretzschmar R.	Solution speciation controls mercury isotope fractionation during sorption of Hg(II) to goethite
14:40-15:00	Wiederhold J.G., Bourdon B., Kretzschmar R.	Mass-dependent and mass-independent fractionation of stable mercury isotopes as tracer for anthropogenic pollution in the environment
15:00-15:20	Schmassmann S., Fricker M., Günther D., Fleitmann D.	Forest use and damages recorded by trace elements and stable isotopes in recent speleothems from Milandre cave (JU)

15:20-16:00 Afternoon Poster Session with coffee

Posters Session 3:

Room NO D-floor – Focus Terra

3.1	Keller C.E., Hochuli P.A., Weissert H., Bernasconi S.M., Giorgioni M., Garcia T.I.	A volcanically induced climate warming and floral change preceded the onset of OAE1a (Early Cretaceous)
3.2	Keller C.E., Weissert H., Hochuli P.A., Bernasconi S.M., Giorgioni M., Garcia, T.I.	In the Tethys Ocean black shales commonly formed prior to Oceanic Anoxic Event 1a (OAE1a, Early Aptian, ~120 Ma ago)
3.3	Smith, R.S., Wiederhold, J.G., Jew, A.D., Brown, G.E., Bourdon, B., Kretzschmar, R.	Mercury Isotope Fractionation as Biogeochemical Tracer in Ore Waste

Session 4: Perspectives on batholith formation and evolution in 4D
Room ML H 37.1

Convenors: Roel Verberne, Katharina Vogt and David Floess

Chairs: Katharina Vogt, David Floess, Roel Verberne

08:45-09:15	Blundy, J., Annen, C., Caricchi, L.	Piecemeal Assembly of Shallow Crustal Magma Bodies (<i>Keynote</i>)
09:15-09:30	Melekhova, E., Annen, C., Blundy, J.	Andesite production in a deep crustal hot zone
09:30-09:45	Mantegazzi, D., Sanchez-Valle, C., Driesner, T., Reusser, E.	The thermodynamic properties of saline-rich aqueous fluids at elevated P-T conditions from Brillouin spectroscopy measurements in a diamond anvil cell
09:45-10:00	Pistone, M., Carrichi, L., Ulmer, P., Mancktelow, N., Reusser E., Burlini, L.	Rheology of Volatile-rich Crystal Mush
10:00-11:00	Morning Poster Session with coffee	
<i>Chairs: Katharina Vogt, David Floess, Roel Verberne</i>		
11:00-11:30	Menand, T.	Physical controls and depth of emplacement of sills and plutons (<i>Keynote</i>)
11:30-11:45	Wagner, T., Hennings, S., Heinrich, C., Ulmer, P.	Fluid evolution of the Monte Mattoni mafic complex, Adamello Batholith, northern Italy
11:45-12:00	Schubert, M., Driesner, T., Gerya, T., Ulmer, P.	Injection of Mafic Magma as Trigger for Felsic Intrusion Processes
12:00-12:15	Keller, T., Kaus, B.	The importance of visco-elasto-plastic rheology in numerical modeling of two-phase flow
12:15-14:00	Lunch	
<i>Chairs: Katharina Vogt, David Floess, Roel Verberne</i>		
14:15-14:30	Yoshinobu, A.	Magma Emplacement Tectonics: What can we learn from the oceans, ophiolites and arcs? (<i>Keynote</i>)
14:30-14:45	Weidendorfer, D., Mattsson, H., Ulmer, P.	Hybridization processes in a partially crystallized magma chamber (Austurhorn intrusion, SE Iceland): Multiple magma mixing scenarios
14:45-15:00	Schaltegger, U., Broderick, C., Wotzlaw, J., Ovtcharova, M., Schoene, B.	Timescales of pluton emplacement – insight from high-precision U-Pb dating
15:00-16:00	Afternoon Poster Session with coffee	
<i>Chairs: Katharina Vogt, David Floess, Roel Verberne</i>		
16:00-16:30	Pattison, D., de Capitani, C., Gaides, F.	Petrologic consequences of variations in metamorphic reaction affinity (<i>Keynote</i>)
16:30-16:45	Pomella, H., Klötzli, U., Scholger, R., Stipp, M., Fügenschuh, B.	The tonalitic lamellae along the Giudicarie fault system: a multidisciplinary study
16:45-17:00	Reverman, R., Fellin, G., Herman, F., Willet, S.	Tectonic exhumation and relief development of the Alps: constraints from the Adamello Complex

Posters Session 4:
Room NO D-floor – Focus Terra

4.1	Broderick, C., Schaltegger, U., Frick, D., Günther, D., Brack, P.	A detailed reconstruction of emplacement and crystallization sequence in the Southern Adamello Batholith, N. Italy using the potential of accessory minerals
4.2	Dymkova, D., Gerya, T., Podladchikov, Y.	2D numerical modelling of fluid and melt percolation in the subduction zone
4.3	Floess, D., Baumgartner, L., Brack, P.	Thermal evolution of the Western Adamello contact aureole
4.4	Hürlimann, N., Müntener, O., Ulmer, P.	Trace-element partitioning in post-plutonic dike-suites S-Adamello (N-Italy)
4.5	Leuthold, J., Blundy, J., Holness, M.	Trace elements geochemistry and experimental petrology as novel approaches to understand reactive flow through the Rum layered intrusion: preliminary results and perspectives
4.6	Mettasch, S., Baumgartner, L.	Cordierite growth textures in the Permian sequence of the Adamello contact aureole, Italy
4.7	Nandedkar, R., Ulmer, P., Müntener, O.	Liquid line of descent from olivine-tholeiite to granodiorite at 0.7 GPa
4.8	Putlitz, B., Ramirez de Arellano, C., Ovtcharova, M., Müntener, O.	Textures and chemistry of zircons: implication on the interpretation of U-Pb zircon ages from observations of the Chaltén Plutonic Complex (Argentina)
4.9	Skopelitis, A., Bindeman, I., Ulianov, A., Brack, P., Schaltegger, U.	Tracing episodic magma accretion by U-Pb dating and $^{18}\text{O}/^{16}\text{O}$ isotopes in zircon: the case of the Adamello batholith, Italy
4.10	Stamper, C., Blundy, J., Melekhova, E., Arculus, R.	Experimental determination of the hydrous basalt liquidus: The Grenadan perspective
4.11	Verberne, R., Ulmer, P., Müntener, O.	Field relations and consequences for emplacement of the Listino Ring Structure, Adamello Massif, N-Italy

Session 5: Geomorphology

Room NO C 44

Convenors: I. Gärtner-Roer, M. Bollschweiler, R. Delaloye, C. Graf, N. Kuhn, S. Morard

Chair: Isabelle Gärtner-Roer

08:50-09:10	Bennett, G.L., Molnar, P., Eisenbeiss, H., McArdeell, B.W.	Probabilistic modeling and analysis of rock-slope failure in the Illgraben, Switzerland, 1963 – 2005
09:10-09:30	Stoffel, M., Trappmann, D., Schneuwly-Bollschweiler, M.	When science meets practice: Dendrogeomorphic documentation of rockfall trajectory frequencies, bounce heights and energies along a road in Valais
09:30-09:50	Champagnac J.-D., Molnar P., Sue C., Herman F.	Tectonics, Climate, and Mountain Topography
09:50-10:10	Savi S., Schneuwly-Bollschweiler M., Stoffel M., and Schlunegger F.	Coupling – decoupling hillslope – channel system processes: a case study from dendrogeomorphology.
10:10-11:00	Morning Poster Session with coffee	
		<i>Chair: Michelle Schneuwly-Bollschweiler</i>
11:10-11:30	Meusburger K., Steel A., Panagos P., Montanarella L., Alewell C.	Spatial and temporal variability of rainfall erosivity factor for Switzerland
11:30-11:50	Trauerstein M., Norton K. P., Schlunegger F., Preusser F.	Climatic imprint on landscape morphology in the western escarpment of the Andes
11:50-12:10	Ambrosi C., Castelletti C., Soma L.	Quaternary Geologic Map of Osogna (Ticino), sheet 1293
12:10-12:30	Caviezel C., Kuhn N.J.	Mass wasting in the Ursern valley (Switzerland): climate or land use change?
12:30-14:00	Lunch	

Posters Session 5:

Room NO D-floor – Focus Terra

5.1	Barboux C., Delaloye R., Strozzi T., Christophe L., Raetzo H., Collet C.	InSAR Terrasar-X visibility assessment of moving landform monitoring in alpine periglacial environment: 30 case studies in the Valais Alps (CH)
5.2	Bekaddour, T., Norton, K.P., Schlunegger, F.	Dip direction controls of bedrock on channel morphologies and denudation rates in the eastern Swiss Alps
5.3	Büchi, M., Kober, F.	Landscape Evolution of the Hörnli-region: Landforms, Processes and Rates
5.4	Dürst Stucki M., Schlunegger F., Christener F.	Deepening of inner gorges through subglacial meltwater - an example from the UNESCO Entlebuch area, Switzerland
5.5	Juretzko G., Meusburger K., Alewell C.	Suitability of Cesium-137 and USLE for soil erosion assessment in an Alpine valley (Val Piora, Switzerland)
5.6	Khaksar K., Farboodi M.	Land Subsidence And Fissuring Due To Groundwater Withdrawal In The Neyshaboor Plain-Northeast Iran
5.7	Kuhn N. J.	Teaching with Tolkien: environmental analysis of a fantasy world

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| 5.8 | Moore J.R., Gischig V., Katterbach M., Loew S. | Crack air convection and resulting temperature disturbances at depth in an alpine rock slope |
| 5.9 | Sorg, A., Rösch, A., Bolch, T., Shatravin, V.I., Solomina, O.N., Schneuwly-Bollschweiler, M., Stoffel, M. | Reconstruction of rock glacier activity in Northern and Inner Tien Shan based on tree rings and aerial photographs |
| 5.10 | Tisato N., Sauro F., Bernasconi S.M., Bruijn R., De Waele J. | Hypogenic contribution to speleogenesis in a predominant epigenic karst system: a case study from the Venetian Alps, Italy |

Session 6: Quaternary Research

Room NO C 60

Convenors: Florian Kober, Susan Ivy-Ochs, Naki Akçar, Irka Hajdas

Chair: Florian Kober & Naki Akcar

08:30-08:45	Ariztegui D, Zvi Ben Avraham, Agnon A., Brauer A., Goldstein S., Haug G., Ito E., Stein M., Yasuda Y., Lazar M., Waldmann N. & the DSDDP Scientific Team	Filling gaps on the shrinking/swelling tale of the Dead Sea through continental drilling
08:45-09:00	Fleitmann D., Badertscher, S., Cheng, H., Edwards, R.L., Leuenberger, M., Zumbühl, A., Tüysüz, O.	Stalagmite evidence for a highly dynamic Pleistocene hydrological history of the Black Sea
09:00-09:15	Scheidegger Y., Vogel N., Fleitmann D., Brennwald M.S., Figura S., Wieler R., Kipfer R.	Water concentrations in stalagmites as a potential new paleoclimate proxy – first results from two Holocene stalagmites from Socotra Island (Yemen)
09:15-09:30	Kwiecien O., Randlett M-E., Stockhecke M., Tomonaga Y., Unwin K. and the PALEOVAN scientific team	Paleoenvironmental changes in eastern Anatolia over the last 500 ka – first insights from the Swiss side of the ICDP Lake Van Drilling Project
09:30-09:45	Häuselmann A., Schmassmann S., Cheng H., Edwards L.R., Jeannin P.-Y., Häuselmann P., Fischer M., Fleitmann D.	Nature and Timing of Terminations I and II recorded in stalagmites from Switzerland
09:45-10:00	Hidalgo Staub R., Krüger Y., Marti D., Frenz M., Fleitmann D.	Fluid inclusions in stalagmites used as a quantitative thermometer in paleoclimate research
10:00-11:00	Morning Poster Session with coffee	
		<i>Chair: Susan Ivy-Ochs</i>
11:00-11:15	Gierga M., Smittenberg R.H., Bernasconi S.M., Hajdas I. & Wacker L.	The chronology of Lake Soppensee (Switzerland) using a biomarker and a compound-specific isotope approach
11:15-11:30	Kind J., Hirt A.M., Gehring A.U.	Evolution of the magnetic inventory in a lacustrine system since the late Pleistocene
11:30-11:45	Plotzki A., May J.-H., Preusser F., Roesti B., Veit, H.	Late Pleistocene to early Holocene fluvial dynamics in the southeastern Llanos de Moxos, Bolivian Amazon
11:45-12:00	Schweizer M., Darling K., Austin W.E.N.	Phylogeographic and morphological study of North East Atlantic benthic foraminifers
12:00-12:15	Moernaut J., Van Daele M., Heirman K., Vandoorne W., Pino M., Urrutia R., De Batist M.	The recurrence pattern of megathrust earthquakes in South-Central Chile: semi-quantitative paleoseismology using lake sediments
12:15-14:00	Lunch	
		<i>Chair: Irka Hajdas</i>
14:00-14:15	Heer A., Veit H., Bateman M.D., Adamiec G., Hajdas I., May J.H.	New findings concerning quartz properties important for luminescence dating of sediments in the Swiss NW Alpine foreland.
14:15-14:30	Reber R., Akçar N., Zahno C., Lüthold A, Tikhomirov D., vy-Ochs S, Kubik P.W., Schlüchter C.	Exposure ages from erratic boulders on the northwestern flank of Rigi (Switzerland)

14:30-14:45	Tikhomirov D., Akçar N., Özkaymak Ç., Alfimov V., Ivy-Ochs S., Sözbilir H., Uzel B., Schlüchter C.	Reconstruction of seismic events using cosmogenic ³⁶ Cl: An example from the western Anatolian Province of Turkey
14:45-15:00	Longchamp C., Derron M.-H., Jaboyedoff M.	Preliminary observations of small scale experiments for the characterization of large rock avalanches
15:00-16:00	Afternoon Poster Session with coffee	

Posters Session 6:**Room NO D-floor – Focus Terra**

6.1	Brönnimann D., Ismail-Meyer K., Wild D., Ohnsorg P., Rentzel Ph.	Oncoids, charales, and homogeneous silt: reconstruction of lake level and environment in the city of Zurich (Switzerland) between the Iron Age and Late Antiquity
6.2	Corella J. P., Anselmetti F. S., Loizeau, J.-L., Girardclos S.	Sedimentology and geomorphology of the Rhone delta canyons (Lake Geneva, Switzerland-France)
6.3	Dietrich F., Golay A., Verrecchia E. P., Cailleau G.	Calcium pools and sinks : the oxalate-carbonate pathway in tropical FERRALSOLS
6.4	Donadini F., Serneels V., Kapper L.	Preliminary archeomagnetic results from Korsimoro, Burkina Faso
6.5	Hajdas I., Michczynski A.	From Soppensee to Altai and New Zealand: Calendar times scales based on ¹⁴ C chronologies and OxCal Models
6.6	Kapper K. L., Donadini F., Hirt A.	Rock- and archeomagnetic study on central European artifacts for characterizing the geomagnetic field evolution during mid-Holocene
6.7	Khaksar K., Haghghi S.	Correlation between Quaternary stratigraphy units in different Geological zones of Iran
6.8	Kocher M., Akçar N., Schlüchter C.	Cosmogenic dating of unconsolidated sediments on Piz Starlex (at >3000m, Swiss-Italian border area)
6.9	Kremer K., Marillier F., Girardclos S.	History of mass movements deposits in deep Lake Geneva during the last 3000 years
6.10	Leith K., Moore J.R., Sternai P., Ivy-Ochs S., Herman F., Loew S.	A multidisciplinary approach to the reconstruction of a Lateglacial stadial in Canton Valais, Switzerland
6.11	Mohammadi A, Lak R, Burg J-P	Sedimentology and sediment geochemistry of the Oman Gulf and Hormoz Strait coastal plain, SE Iran
6.12	Prizomwala S.P., Bhatt N., Castellort S., Hirt A.M., Winkler W.	Mudflats of Gulf of Kachchh Coast: Archives of Sea Level Fluctuations and Palaeo-environmental Change since Mid Holocene
6.13	Reber R., Akçar N., Ivy-Ochs S, Kubik P.W., Schlüchter C.	Maximal position and retreat phase of the Reuss-Piedmont Lobe during the LGM
6.14	Wiemann Ph.	Understanding site manipulation and destruction in prehistoric lake-dwellings

Session 8: Hydrology and Sustainable Water Resources Management in View of Global Changes

Room ML F 39

Convenors: Bruno Schädler, Michael Doering, Tobias Jonas, Petra Schmocker-Fackel

Session I: "Groundwater - Surface Waters Interactions"

Chair: Petra Schmocker-Fackel

09:00-09:20	Brunner P., Irvine D., Hendricks Franssen H., Simmons Craig T.	Implications of simplifying heterogeneous streambeds in models simulating surface water groundwater interactions
09:20-09:40	Käser D., Brunner P., Renard P., Perrochet P., Schirmer M., Hunkeler D.	How long can groundwater sustain stream flow during droughts? The influence of stream sinuosity on bank storage in alluvial plains
09:40-10:00	Moeck C., Brunner P., Schirmer M., Hunkeler D.,	Using high resolution lysimeter data to quantified current and future recharge rates and evaluating the uncertainty
10:00-10:20	Mori N., Kanduc, T., Oz B., Brancelj A.	Identifying ecological indicators for the alpine groundwaters in the context of future climate change: the interdisciplinary approach

10:20-11:00 Morning Poster Session with coffee

Chair: Michael Doering

11:00-11:20	Bodmer P., Doering M., von Fumetti S., Robinson C.T., Nagel P.	Respiration and microbial dynamics as indicators of floodplain heterogeneity: the alpine Urbach valley, Switzerland
11:20-11:40	Malard A., Vouillamoz J., Jeannin P.-Y., Eichenberger U., Weber E.	Karst system characterization (KARSYS): a methodology for approaching the hydrogeology of karst systems in Switzerland (Swisskarst Project, NRP61)
11:40-12:00	Finger D., Kauzlaric M., Jeannin P.-Y., Huss M., Wernli H.R., Schädler B., Rey E., Weber E., Hugentobler A. & Weingartner R.	Identification Of Glacier Melt Routing Path Ways In A Karstic Environment: A Case Study Of The Glacier De La Plaine Morte

12:00-12:45 Lunch

12:45 - 13:30 General Assembly of the Swiss Society for Hydrology and Limnology

13:30-14:15 Hydrobiology-Limnology Award

Session II: "Hydrology and Water Resources Management"

Chair: Reinhard Bachofen

14:20-14:40	Celio, M.	Water management and allocation in semi-arid areas: lessons from Hyderabad water supply, India
14:40-15:00	Rössler, O., Dieckkrüger, B., Löffler, J.	A Climate Change Impact Assessment Study on Mountain Soil Moisture with Emphasis on Epistemic Uncertainties

15:00-15:30 Afternoon Poster Session with coffee

Chair: Tobias Jonas

15:30-15:50	von Gunten D., Schaefli B.	Modelling of Evaporation in high Alpine Catchments
15:50-16:10	Sideris I., Gabella M., Germann U.	Real-time spatiotemporal combination of radar and raingauge measurements in Switzerland
16:10-16:30	Zappa M., Fundel F., Jonas T., Jörg-Hess S.	Quasi-operational estimation of water resources anomalies during the dry and wet spells of 2011

Posters Session 8:**Room NO D-floor – Focus Terra**

8.1	Baillieux A., Moeck C., Hunkeler D.	Effect of climatic forcing in nitrate concentration evolution of groundwater based on changing recharge rates
8.2	Diem S., Schirmer M.	Impact of the uncertainty in river water levels on modeled groundwater residence times
8.3	Farinotti D., Usselman S., Huss M., Bauder A., Funk M.	Hydrological changes in glacierized basins of the Swiss Alps: First attempt of a synthesis
8.4	Hänggi P., Bosshard Th., Angehrn S., Helland E., Job D., Rietmann D., Schädler B., Schneider R., Weingartner R.	Einfluss der Klimaänderung auf die Stromproduktion der Wasserkraftwerke Löntsch und Prättigau
8.5	Oz B., Mori N., Brancelj A.	Hydrogeological, physical and chemical differences influencing benthic macroinvertebrate communities in alpine springs of Slovenia
8.6	Vouillamoz J., Malard A., Weber E., Eichenberger U., Jeannin P-Y.	Swisskarst project (NRP61): Identification cards as tools for a sustainable management of karst systems.
8.7	Wirth S. B., Gilli A., Glur L., Anselmetti F. S., Magny M., Vannièrè B.	Reconstructing the seasonality of Holocene flood events using varved lake sediments of Lake Ledro (S-Alps, Italy)

Session 9: Open Cryosphere Session

Room NO C 6

Convenors: A. Bauder, M. Hoelzle, B. Krummenacher, C. Lambiel, M. Lüthi, J. Nötzli, J. Schweizer, M. Schwikowski

Chair: Martin Luthi

09:00-10:00	All Poster Authors	Short poster presentations, 3min. each (<i>see poster program below</i>)
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10:00-11:00 Morning Poster Session with coffee

Chair: Charles Fierz:

11:15-11:30	Zwimpfer F., Mitterer C., Reiweger I., Schweizer J., Dual J.	Failure of wet snow
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11:30-11:45	Schmid M., Gubler S., Fiddes J., Keller M., Gruber S.	Using miniature temperature loggers for the analysis of snow cover distribution and melting
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11:45-12:00	Dalban Canassy P., Funk M.	Study of the retreat of a lake-calving glacier terminus, Triftgletscher (Switzerland).
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12:00-14:00 Lunch

Chair: Martin Hoelzle

14:00-14:15	Ryser C., Lüthi M., Funk M., Catania G., Hawley R., Neumann T.	Subglacial controls of the short term dynamics at the margins of the Greenland ice sheet: Interaction between subglacial water pressure and ice deformation
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14:15-14:30	Herren P-A., Eichler A., Eikenberg J., Machguth H., Papina T., Tobler L., Vogel E., Zapf A., Schwikowski M.	Ice core based climate reconstruction of the Mongolian Altai
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14:30-14:45	Zapf A., Szidat S., Schwikowski, M.	Radiocarbon dating of glacier ice
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14:45-15:00	Failetta J., Funk M., Sornette D.	Prediction of alpine glacier sliding instabilities: a new hope
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15:20-15:50 Afternoon Poster Session with coffee

Chair: Jeanette Nötzli

16:00-16:15 SEP Young Scientist Awards

16:15-16:30	Paul F., Frey H., Le Bris R., Linsbauer A., Haeberli, W.	Recent glacier changes in the Alps in response to atmospheric warming: Observations and consequences
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16:30-16:45	Gruber S.	Derivation and analysis of a high-resolution estimate of global permafrost zonation
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16:45-17:00	Walter, F., Husen, S., Clinton, J., Lüthi, M., Ryser, C., Funk, M.	Seismological experiments on the Greenland ice sheet
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Posters Session 9: Room NO D-floor – Focus Terra

09:00-09:03	9.1: Köchle B., Schneebeli M.	Numerical simulation of the Young's Modulus of snow
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09:03-09:06	9.2: Monti F., Schweizer J.	Stability information supplied by the snow cover
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09:06-09:09	9.3: Schmid L., Mitterer C., Schweizer J., Heilig A., Eisen O., Okorn R.	model SNOWPACK Monitoring temporal changes within the snowpack utilizing upward-looking radar systems
09:09-09:12	9.4: Alig C., Mitterer C., Schweizer J.	On the reliability of indicator path avalanches for local avalanche forecasting
09:12-09:15	9.5: Sanders, J. W., Cuffey, K. M., MacGregor, K. R.	Short-term velocity variations of an alpine cirque glacier
09:15-09:18	9.6: Gabbi J., Farinotti D., Bauder A., Maurer H.	Ice volume distribution in the Mauvoisin region and implications on glacier fluctuations
09:18-09:21	9.7: Huss M., Farinotti D.	Ice thickness distribution of 90'000 mountain glaciers around the globe using the GLIMS database and SRTM/ASTER DEMs
09:21-09:24	9.8: Gärtner-Roer, I., Zemp, M., Koblet, T., Jansson, P., Thee, P., Haerberli, W., Holmlund, P.	"Old-fashioned" photogrammetric analyses – still a key tool for the reassessment of long-term glacier changes: examples from Storglaciären, Sweden
09:24-09:27	9.9: Gärtner-Roer, I., Armstrong, R., Fetterer, F., Haerberli, W., Hoelzle, M., Käab, A., Kargel, J., Nussbaumer, S.U., Paul, F., Raup, B.H., Zemp, M.	Integration of glacier databases within the Global Terrestrial Network for Glaciers (GTN-G)
09:28-09:30	9.10: Zemp, M., Haerberli, W., Huss, M., Joerg, P.C., Machguth, H., Morsdorf, F., Rastner, P., Schaepman, M.E.	Glacier Laser-scanning Experiment Oberwallis: project overview and first results
09:30-09:33	9.11: Rastner P., Bolch T., Paul, F.	The first complete inventory of glaciers and ice caps for Eastern Greenland
09:33-09:36	9.12: Bolch T., Chen F., Wei Y., Kang, S., Linsbauer, A.	Past and future glacier changes in the western Nyainqentanglha Range on the Tibetan Plateau
09:36-09:39	9.13: Machguth H., Salzmann N., Linsbauer A.	The Swiss Alpine Glacier's Response to the "2 °C Air Temperature Target"
09:39-09:42	9.14: Endrizzi S., Gruber S.	Effects of subsurface lateral water flow on soil thaw
09:42-09:45	9.15: Morard S., Delaloye R.	Thermal changes in ventilated overcooled talus slope: a mutli-methodological approach
09:45-09:48	9.16: Wirz V., Beutel J., Buchli. B., Gruber S., Limpach P., Zhenzhong, S.	Temporal characteristics of various cryosphere-related slope movements in high mountains: GPS measurements and analysis
09:48-09:51	9.17: Schneider S., Hauck C.	Geophysical monitoring of three different permafrost forms within the Murtèl-Corvatsch area, Upper Engadin
09:51-09:54	9.18: Scherler M., Hauck C., Hoelzle M., Salzmann N.	Projection of permafrost evolution under climate change scenarios and evaluation of sensitive influencing factors
09:54-09:57	9.19: Wendl, I., Isaksson, E., Schwikowski, M.	Study of a new Svalbard ice core
09:57-10:00	9.20: Nuber A., Rabenstein L., Lehmann-Horn J. A.	Surface nuclear magnetic resonance tomography on a first-year sea ice pressure ridge

**Session 10: Meteorology and Climatology
+ Session 11: Greenhouse Gases: Linkages between Biosphere and Climate
Room ML H 41.1**

Convenors: Rolf Philipona, Markus Furger + Werner Eugster, Christoph Ritz

Chair: Rolf Philipona

09:00-09:20	Graf M., Sprenger M., Hofmann H., Seibt C., Lohmann U.	Numerical simulations of short-crested surface waves for a pre-Alpine lake using the SWAN wave model
09:20-09:40	Leutwyler D., Martius O., Folini D., Sprenger M., Wernli H.	Heavy precipitation events in Europe and their connection to an upper-level stratospheric intrusion
09:40-10:00	Kräuchi A., Philipona R., Romanens G., Levrat G.	New balloon sounding technic used to investigate the radiation error on radiosonde temperature measurements
10:00-10:20	Philipona R., Kräuchi A., Romanens G., Levrat G.	Radiation errors and uncertainty on radiosonde upper air temperature measurements

10:20-11:00 Morning Poster Session with coffee

Chair: Werner Eugster

11:00-11:20	Weibel B., Liniger M., Appenzeller C.	NCCR Climate related research at MeteoSwiss - The Swiss climate of today and tomorrow
11:20-11:40	Hiller R., Neiningen B., Brunner D., Künzle T.,	Regional scale methane emissions derived from concentration gradient measurements along the Reuss Valley, Switzerland
11:40-12:00	Schaller N., Cermak J., Knutti R., Wild M.	The response of the hydrological cycle to different forcing agents
12:00-12:20	Zieger P.	ACP Award 2011 Winner: Effects of relative humidity on aerosol light scattering
12:20-13:00	Mitgliederversammlung der Schweizerischen Gesellschaft für Meteorologie (SGM)	

13:00-14:00 Lunch

**Posters Session 10+11:
Room NO D-floor – Focus Terra**

10.1	Lustenberger A., Knutti R., Fischer E.	A simple statistical model for estimating exceedance probabilities in a future climate
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Session 12: Natural or man-made mineral dust and its influence on humans, environment and climate

Room NO E 11

Convenors: Bernard Grobety, Reto Gieré, Barbara Kuhn, Nino Künzli, Urs Baltensperger

Chair: Barbara Kuhn

09:00-09:20	Sodemann, H., Lai, M., Knippertz, P, Wernli, H., Stohl, A.	Validation of a Lagrangian dust transport model with data from the FENNEC/LADUNEX fieldcampaign
09:20-09:40	Stetzer O., Welti A., Lüönd F., Ladino L., Lohmann U.	The role of mineral dust particles and their surface properties for clouds
09:40-10:00	Sommer F., Gieré R., Dietze V.	Analysis of re-suspended ash from the Eyjafjallajökull
10:00-11:00	Morning Poster Session with coffee	

Chair: Reto Gieré

11:00-11:20	Kuhn B.K.	Dust analysis in human lungs
11:20-11:40	Wenzel M., Ebeling S., Merfort I., Dietze V., Gieré R.	Tire-wear particles and their effects on human A549 lung cells
11:40-12:00	Maschowski Ch., Trouvé G., Gieré R.	Characterization of two different biomass pellets and their combustion products
12:00-14:00	Lunch	

Posters Session 12:

Room NO D-floor – Focus Terra

12.1	Mariani I., Sigl M., Eichler A., Gabrieli J., Boliu D., Barbante C., Boutron C., Gäggeler H. W., Schwikowski M.	A 1000-year record of Sahara dust from an Alpine ice core
12.2	Rahimzad, N., Mohammadi, A., Lak R.	Sediments size characteristic of Sistan plain and Hamoon lakes as an important source of dust production in the world and adverse health effects of air pollution
12.3	Spiegel J.K., Peter T., Mayol-Bracero O.L., Valle C.J., Zurcher F., Buchmann N., Eugster W.	Does long-range transported African Dust affect cloud droplet size distributions in a Tropical Montane Cloud Forest in Puerto Rico?

Session 13: Phenology and Seasonality Room NO E 39

Convenors: This Rutishauser, Martine Rebetez, Thomas Herren

Chair: This Rutishauser

09:00-09:30	Rutishauser T.	Geschäftssitzung der Kommission für Phänologie und Saisonalität KPS
09:30-09:50	Eugster M.	Phenocam@school
10:00-10:30	Morning Poster Session with coffee	

Symposium zu Ehren von Claudio Defila und François Jeanneret

Chair: Martine Rebetez

10:30-10:40	Rebetez M.	Welcome and introduction
10:40-11:10	Koch E.	Die Schweizer Phänologie in Europa
11:10-11:30	Herren T.	Claudio Defila: Trends und Stetigkeiten
11:30-11:50	Rutishauser T.	François Jeanneret: Dokumentieren und beleben – Den Rhythmen lauschen
11:50-12:00	Güsewell S., Rixen C.	Verleihung des «Schweizer Preises für Phänologie und Saisonalitätsforschung»
12:00-14:00	Lunch	

Posters Session 13: Room NO D-floor – Focus Terra

13.1	Gewinnerin «Schweizer Preises für Phänologie und Saisonalitätsforschung»	
13.2	Gewinnerin «Schweizer Preises für Phänologie und Saisonalitätsforschung»	
13.3	Rutishauser, T	Developing a web-based plant phenological database, data collection and visualisation tool in Switzerland

Session 14: Traces of life on planet Earth: A tribute to the late Professor Lukas Hottinger
Room ML F 38

Convenors: Lionel Cavin, Michael Hautmann

09:15-09:20	Meyer C.	Tribute to the late Professor Lukas Hottinger (1933-2011)
		<i>Chair: Lionel Cavin</i>
09:20-09:40	Hofmann R., Hautmann M., Bucher H.	Ecological structure and taxa distribution in near shore habitats of the Virgin Formation (south-western Utah): Implications for the Early Triassic recovery
09:40-10:00	Romano C., Brinkmann W., Goudemand N., Vennemann T., Ware D., Hermann E., Brühwiler T., Bucher H.	Recovery Patterns of Chondrichthyan and Osteichthyan Fishes after the end-Permian Mass Extinction
10:00-10:20	Schneebeili-Hermann Elke, Hochuli Peter A., Kürschner Wolfram M., Bucher Hugo	Terrestrial ecosystems during and following the end-Permian mass extinction – or from spore spike to spore spike
10:20-11:00	Morning Poster Session with coffee	
		<i>Chair: Michael Hautmann</i>
11:00-11:20	Ware D., Bucher H., Goudemand N., Orchard M., Hermann E., Hochuli P.A., Brühwiler T., Krystyn L., Roohi G.	Nammal Nala (Salt Range, Pakistan), a potential GSSP candidate for the Induan/Olenekian Boundary (Early Triassic): detailed biostratigraphy and comparison with other GSSP candidates
11:20-11:40	Meister P.H.	Was the Triassic a plume world?
11:40-12:00	Mennecart B.	Was Europe an evolutionary DEAD END? Case of the Oligocene-Early Miocene ruminants.
12:00-12:20	Geiger, M., Wilson, L. A. B., Costeur, L., Scheyer, T. M., Aguilera, O. A., Sánchez-Villagra, M. R.	Giant rodents from the northern Neotropics - taxonomic, phylogenetic and developmental aspects of their evolution within the caviomorph radiation
12:20-14:00	Lunch	
		<i>Chair: Damien Becker</i>
14:00-14:20	Scherler, L.	Paleobiogeographic and paleoecological considerations on European Anthracotheriidae (Cetartiodactyla, Mammalia)
14:20-14:40	Mary Y., Knappertsbusch M.	Biogeographic morphological investigation of menardiform globorotalids in a time slice at 3.2 My (Mid-Pliocene)
14:40-15:00	Kolb, C.	Growth patterns deduced from bone histology of the dwarfed island deer <i>Candiacervus</i> from the Late Pleistocene of Crete
15:00-15:20	Hiard F., Mennecart B., Berger J.-P.	Palaeoenvironmental reconstruction of the Swiss Molasse Basin (Oligocene and Early Miocene) on the basis of postcranial remains of ruminants (Artiodactyla, Mammalia)

15:20-16:00 Afternoon Poster Session with coffee

Chair: Jean-Pierre Berger

16:00-16:20 Swiss Commission of Palaeontology Prize

Posters Session 14:

Room NO D-floor – Focus Terra

14.1	Costeur L., Domenici P., Ezquerra R., Rousseau M., Antognarelli F., Satta A., Simeone S., Pérez-Lorente F.	A Cretaceous fish takes a fast start: insights from a recent analogue
14.2	Costeur L., Berthet D.	A new skull of <i>Tapirulus</i> from the Late Eocene of France
14.3	Horath Th. D., Bachofen R., Neu Th.R., Strasser R. J.	Endolithic microorganisms in Piora Dolomite
14.4	Knappertsbusch, M., Mary, Y.	Mining morphological evolution in microfossils using volume density diagrams
14.5	Knappertsbusch, M., Mary, Y., Schorpp, R.	AMOR does it for us
14.6	Och L., Shields-Zhou G.A.	The Neoproterozoic Oxygenation Event: environmental perturbations and biogeochemical cycling
14.7	Pictet, A.	The <i>Exogyra aquila</i> Marls (Lower Aptian) on the Vivarais platform (Ardèche, France) : Sedimentology, stratigraphy, and biostratigraphy
14.8	Thomas C., Vuillemin A., Pacton M., Waldmann N., Ariztegui D.	Pushing life to the extreme: Investigating the subsurface biosphere in the Dead Sea Basin

Session 15: Geoscience and Geoinformation - From data acquisition to modelling and visualisation

Room ML E 12

Convenors: Nils Oesterling, Adrian Wiget, Massimiliano Cannata

Chair: Adrian Wiget

09:00-09:20	Novak D., Grimm D. E., Tokarczyk P.	Modeling of the “Plan da Mattun” archeological site using a combination of different sensors
09:20-09:40	Rogers, S., Collet, C., Lugon, R.	Determining archaeological potential in the Pennine Alps using GIS tools
09:40-10:00	Strasky S., Oesterling N., Baland P., Michael C.S., Kühni A.	The Swiss Geologic Data Model

10:00-11:00 Morning Poster Session with coffee

Chair: Nils Oesterling

11:00-11:20	Cannata M., Marzocchi R., Molinari M.	GIS-based modeling for landslide-generated tsunami
11:20-11:40	Molinari M., Cannata M., Ambrosi C., Begueria S.	Numerical modelling for risk scenarios generation
11:40-12:00	Friedel, S.	Earth modeling seen from a Multiphysics Perspective

12:00-13:40 Lunch

Chair: Nils Oesterling

13:40-14:00	Antonovic M., Cannata M., Molinari M.	Protect-Me: web service for protection work catalogue
14:00-14:20	Antonovic M., Cannata M.	Managing authentication and permissions to OGC services with GeoShield: presenting the new GeoServer Resource Access Manager plug-in and the Sensor Observation Service protection
14:20-14:40	Kessler, H., Mathers, S., Wood, B.	Building the National Geological Model of Great Britain
14:40-15:00	Michael C. S., Baumberger R., Oesterling N.	Geological 3D modelling of Quaternary sequences using GSI3D – an example of the surroundings of Berne

15:00-16:00 Afternoon Poster Session with coffee

Chair: Massimiliano Cannata

16:00-16:20	Dresmann H., Huggenberger P., Epting J., Wiesmeier S., Scheidler S.	The geological 3D-model of the Basel region – new insights
16:20-16:40	Sala P., Tisato N., Pfiffner O. A., Saenger E. H.	Vp-Vs measurements of shallow formations in Chémery (FR): comparison between laboratory and field data and integration within a 3D geological model
16:40-17:00	Khemiri S., Kassebi A., Zargouni F.	Provision of 3D GIS (model GMS) for geospatial hydrogeologic modeling of Mio-Plio-Quaternary groundwater of Foussana (Central Tunisia)

**Session 16: Earth System Science related Earth Observation
+ Session 18: Advances in GIScience and Remote Sensing
Room ML F 34**

**Convenors (16): Michael E. Schaepman, Brigitte Buchmann, Manos Baltsavias
+ Convenors (18): Michael Schaepman, Robert Weibel, Ross Purves, Markus Rothacher, Konrad Schindler**

Earth System Science related Earth Observation (16)

Chair: Manos Baltsavias

08:30-09:00	Damm A., Kneubuehler M., Schaepman M.E.	Investigating variations of gross primary productivity (GPP) over several ecotypes in Switzerland using the APEX chlorophyll fluorescence product
09:00-09:20	Hüsler F., Wunderle S., Jonas T., Neuhaus C.	Retrieval of the ECV „snow spatial extent“ from 25 years of AVHRR data over the European Alps for climate research
09:20-09:40	Fontana F., Seiz G., Foppa N., Lugin D.	Satellite-based climate products for alpine studies within GCOS Switzerland
09:40-10:00	Papasaika H., Baltsavias E., Schindler K.	Fusion of Digital Elevation Models Using Sparse Representations

10:00-11:00 Poster Session 16 with coffee

Chair: Brigitte Buchmann

11:00-11:30	Pasquali P., Riccardi P., Cantone A., Defilippi M., Holecz F.	Methods and sensors for monitoring land subsidence phenomena based on satellite SAR interferometric stacking
11:30-11:50	Popp C., Brunner D., Damm A., Buchmann B.	High spatial resolution mapping of NO ₂ from APEX imaging spectrometer data
11:50-12:10	Laurent V., Verhoef W., Clevers J., Schaepman M.	Estimation of forest variables from multiangular radiance data using a coupled canopy-atmosphere model

12:10-13:40 Lunch

Advances in GIS and Remote Sensing (18)

Chair: Ross Purves

13:40-14:10	Demir N., Baltsavias E.	Automated modelling of 3D building roofs using LIDAR and image data
14:10-14:30	Breschan J., Heinimann H. R., Niederhuber M.	Automatic identification of forest treatment units using LiDAR-data
14:30-14:50	Waser, L.T., Ginzler, C, and Kuechler, M.	Large-Area Tree Species Classification – Potential And Limits Of Airborne Digital Sensor (Ads40/80)

14:50-16:00 Poster Session 18 with coffee

Chair: Michael Schaepman

16:00-16:20	Derungs C., Purves R.	Identifying and disambiguating toponyms
16:20-16:40	Leinß S., Hajnsek I.	Sensitivity of X-band SAR interferometry on the snow pack characterisation

16:40-17:00	Henke D., Meier E.	Initial results of a low-frequency 3D-SAR approach for mapping glacier volumes
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Posters Session 16+18:**Room NO D-floor – Focus Terra****Poster Session 16**

16.1	Fatehi P., Damm A., Kneubuhler M., Schaepman M.	Ecosystem parameter mapping of Alpine regions using continuous fields derived from imaging spectrometer data
16.2	Galvez P., Ampuero J.-P., Dalguer T., Nissen-Meyer T.	Modeling the complexity of the dynamic rupture process of the 2011 Mw 9 Tohoku earthquake.
16.3	Hocke, K., Kämpfer, N., Wacker, S., Gröbner, J., Vuilleumier, L.	Consistent Trends in Water Vapour, Downwelling Radiation, and Temperature
16.4	Homolova L., Malenovsky Z., Schaepman M., Clevers J.	Estimation of plant functional biochemical traits of subalpine and alpine grasslands from airborne images of high spatial and spectral resolution
16.5	Small D., Schubert A., Zuberbühler L., Meier E.	Time series of radar backscatter: Moving towards simultaneous high temporal & spatial resolution observations of Alpine snow melting
16.6	Tuia, D., Verrelst, J., Alonso-Chordà, L., Camps-Valls, G.	Acquiring the relevant samples for chlorophyll estimation with hyperspectral data

Poster Session 18

18.1	D'Odorico P., Hueni A., Jehle M., Schaepman M.	Recent efforts on APEX Calibration and Validation
18.2	de Jong R., Verbesselt J., Schaepman M.E., de Bruin S.	Short-term variability within long-term trends in global vegetation activity
18.3	Saurer O., Baatz G., Köser K., Pollefeys M.	Visual Localization Recognition and Photo-to-Terrain-Alignment in Mountainous Areas
18.4	Schubert A., Small D., Jehle M., Meier E.	Long-term geolocation accuracy of TerraSAR-X high-resolution spotlight products
18.5	Torabzadeh H., Morsdorf F., Schaepman M.	Data fusion methods of LiDAR and spectroscopy data for the derivation of forest biochemical and biophysical variables – a review
18.6	Weyermann J., Damm A., Kneubühler M., Schaepman M.	Ross-Li BRDF correction of airborne imaging spectroscopy data for improved continuous field map generation in the Swiss National Park
18.7	Yáñez-Rausell L., Malenovsky Z., Schaepman M.	Influence of gap fraction on coniferous needle optical properties measurements

Session 17: Synergies between Advancements in Geodesy and other Geosciences

Room ML H 41.1

Convenors: Markus Rothacher, Urs Marti, Pierre Yves Gilliéron, Rolf Dach

12:00-13:40

Lunch

Chair: Markus Rothacher

13:40-14:00	Brockmann E., Schlatter A.	Station velocities in Switzerland derived from 20 years of geodetic satellite navigation observations
14:00-14:20	Salvini D., Studer M., Müller H., Spillmann T., Schnellmann M., Brockmann E.	Ein permanentes GNSS-Netz zur Aufzeichnung tektonischer Bewegungen In der Nordschweiz
14:20-14:40	Buchli B., Sutton F., Beutel J.	GPS-equipped wireless sensor network for geodetic positioning applications
14:40-15:00	Wang K., Rothacher M.	Positioning improvements with stochastic clock modelling

15:00-16:00

Afternoon Poster Session with coffee

Chair: Urs Marti

16:00-16:20	Hurter F., Geiger A., Perler D.	Geodetic water vapor monitoring campaign in Zermatt, summer 2010
16:20-16:40	Dach R., Jäggi A., Schmid R., Lutz S., Steigenberger P., Beutler G.	Impact of troposphere modelling on GNSS satellite antenna PCV estimation
16:40-17:00	Jäggi A., Meyer U., Prange L., Bock H., Dach R., Beutler G.	Gravity Field Determination at AIUB: From CHAMP and GRACE to GOCE

Posters Session 17:

Room NO D-floor – Focus Terra

17.1	Villiger A., Geiger A., Marti U., Brockmann E.	SWISS 4D: Estimation of the tectonic deformation field of Switzerland based on GPS measurements
17.2	Limpach P., Geiger A., Beutel J., Buchli B., Wirz V., Gruber S.	Permanent monitoring of rock glaciers with low-cost GPS
17.3	Neyer F., Delaloye R.	Displacement detection on rock glaciers using webcam images: A case study in the Mattertal
17.4	Su Zhenzhong, Limpach P., Rothacher M., Geiger A.	Improving sub-daily solutions of single-frequency GPS using antenna PCV
17.5	Zhang Y., Song S., Dalguer L., Clinton J., Haberling S.	Investigating the reliability of kinematic source inversion with dynamic rupture models and high rate GNSS data

Session 20: Deep Geothermal Energy

Room ML F 36

Convenors: Keith Evans, Nicolas Deichmann, Christoph Heinrich

Chairpersons: Christoph Heinrich, Nicolas Deichmann and Keith Evans

09:00-09:05	Welcome Address	
09:05-09:15	Rybach L.	Introduction: Status and prospects of deep geothermal energy, globally and in Switzerland
09:15-09:35	Siddiqi G.	Bringing Switzerland's geothermal resources to market – technological, economic and institutional challenges
09:35-09:55	Schill E., Fisch, H., Uhde, J.	Deep geothermal systems – advantages and limitations of using natural permeability
09:55-10:15	Keith Evans	Enhanced Geothermal Systems (EGS) – experience to date and lessons learned
10:15-10:40	Jung, R. (Keynote)	Enhanced Geothermal Systems (EGS) – the way forward
10:40-11:10	Morning Poster Session with coffee	
		<i>Chairpersons: Christoph Heinrich, Nicolas Deichmann and Keith Evans</i>
11:10-11:30	Deichmann N., Wiemer S.	EGS and induced seismicity — the good and the bad
11:30-11:50	Driesner T., Jenny P.	Process simulation – understanding and judging geothermal reservoir processes
11:50-12:10	Gerber L., Maréchal F.	Efficient conversion of geothermal resources for multiple energy uses
12:10-12:30	Meier P., Burri P.	Key success factors for Enhanced Geothermal Systems
12:30-14:00	Lunch	

Posters Session 20: Room NO D-floor – Focus Terra

20.1	Evans, K.F., Zappone, A., Kraft, T., Deichmann, N., Moia, F.	A survey of the induced seismic responses to fluid injection in geothermal and CO ₂ reservoirs in Europe
20.2	Goertz-Allmann B. P., Bachmann C., Wiemer S.	What can induced earthquake source properties tell us about reservoir geomechanics?
20.3	Kraft T., Husen S., Wiemer S.	GEOBEST - A contribution to the long term development of deep geothermal energy in Switzerland
20.4	Schoenball M., Baujard C., Kohl T., Dorbath L.	Changes of Coulomb Failure Stress due to dislocations during stimulation of well GPK2 in Soultz-sous-Forêts
20.5	Sikaneta S.G., Evans K.F.	Natural fractures and stress heterogeneity in the host granite of the Basel Deep Heat Mining project
20.6	Zerlauth M., Ortner H., Pomella H., Schulz M., Fügenschuh B.	Geothermal energy potential of Vorarlberg (Austria)

Session 21: Geophysics and Rockphysics

Room ML F 36

Convenor: Marcel Frehner

Geophysics

Chair: Klaus Holliger

14:00-14:15	van Dinther Y., Gerya T.V., Corbi F., Funicello F., Mai P.M., Dalguer L.A.	The long-term seismic cycle at subduction thrusts: Benchmarking geodynamic numerical simulations and analogue models
14:15-14:30	Gabriel A.-A., Ampuero J.-P., Dalguer L.A., Mai P.M.	Macroscopic source properties from dynamic rupture simulations in plastic media
14:30-14:45	Riahi N., Birkelo B., Saenger E.H.	A statistical approach to ambient wave field analysis
14:45-15:00	Quintal B., Steeb H., Frehner M., Schmalholz S.M.	S-wave attenuation due to wave-induced fluid flow in heterogeneous, partially saturated porous media

15:00-16:00 Afternoon Poster Session with coffee

Rockphysics

Chair: Marcel Frehner

16:00-16:15	Madonna C., Almqvist B.S.G., Saenger E.H.	Digital rock physics: Numerical prediction of pressure-dependent ultrasonic velocities using micro-CT imaging
16:15-16:30	Saenger E.H., Enzmann F., Keehm Y., Steeb H.	Digital rock physics: Effect of fluid viscosity on effective elastic properties
16:30-16:45	Girard L., Gruber S., Weber S., Amitrano D.	Rock damage inferred from acoustic emissions in a partly frozen high-alpine rock-wall
16:45-17:00	Kuteynikova M., Quintal B., Tisato N.	Numerical modelling and laboratory measurements of seismic attenuation

Posters Session 21:

Room NO D-floor – Focus Terra

21.1	Abdelfettah Y., Schill E.	Accurate gravity data correction and 3D gravity forward modeling
21.2	Almqvist B.S.G., Aschwanden L., Diamond L., Ramseyer K., Zappone A.	Characterization of the Upper Muschelkalk aquifer in northeast Switzerland using laboratory physical properties and imaging techniques
21.3	Baumann C.F.D., Dalguer L.A.	Toward source characterization of local supershear ruptures in dip-slip faults
21.4	Benson P., Heap M., Lavallée Y., Flaws A., Hess K., Cordonnier B., Misra S.	Laboratory simulations of tensile (hydro) fracture: Current work and new directions
21.5	Frehner M., Quintal B.	Physical mechanisms for low-frequency seismic wave attenuation in fractured media
21.6	Khaksar K., Rahmati M.	Rock classification based on physico-mechanical analysis - Case study: Poshtkuh Basin, Alborze Region - Iran
21.7	Madonna C., Tisato N., Saenger E.H.	Low-frequency measurements of seismic wave attenuation

21.8 (see 20.4)	Schoenball M., Baujard C., Kohl T., Dorbath L.	Changes of Coulomb Failure Stress due to dislocations during stimulation of GPK2 at Soultz-sous-Forêts
21.9	Tisato N., Madonna C., Saenger E.H.	Measurements and mechanisms of seismic wave attenuation in partially saturated rocks
21.10	Zappone A., Bruijn R., Tripoli B., Biedermann A.R., Burg J.-P., Kissling E.	The Swiss Atlas of Physical Properties of Rocks (SAPHYR): Progress and developments
21.11	Zappone A., Diamond L., Almqvist B., Evans K., Deichmann N., Werner M., Mazzotti M.	Carma – Carbon Management in Power Generation: Geological CO ₂ storage in Switzerland

Meetings of Societies on Friday 11th November

Time		Room
11:30-12:45	SNC-IUGG: Annual Meeting 2011	NO D45

Meetings of Societies on Saturday 12th November

Time		Room
12:20-13:00	Mitgliederversammlung der Schweizerischen Gesellschaft für Meteorologie (SGM)	ML H41.1
12:45-13:30	General Assembly of the Swiss Society for Hydrology and Limnology	ML F 39
09:00-09:30	Geschäftssitzung der Kommission für Phänologie und Saisonalität KPS	NO E 39
17:15-18:00	Generalversammlung Verein «Erlebnis Geologie»	NO D53
12:45-13:45	General Assembly of the Swiss Society of Mineralogy and Petrology	ML H 44

9th Swiss Geoscience Meeting, Zurich 2011

Special symposium in honor of Daniel Bernoulli & Albert Matter

Sunday November 13th

Department of Earth Sciences, ETH Zurich

08:50 - 09:00	Introduction to the Symposium	Karl Föllmi University of Lausanne
09:00 - 09:10	Orogen-foreland basin systems: The importance of a precise chronological framework. An appraisal of Albert Matter's contribution to the Geology of the Alps	Fritz Schlunegger University of Bern
09:10 - 09:35	Tectonics versus palaeoceanography in the evolution of the Tethys	Hugh Jenkyns University of Oxford
09:35 - 10:00	Mesozoic radiolarites from oceans to mountains: Facies, ages and paleo-environments	Peter Baumgartner University of Lausanne
10:00 - 11:00	<i>Coffee break & posters</i>	
11:00 - 11:25	Foreland basin systems of western Europe using a source-to-sink approach	Philip Allen Imperial College London
11:25 - 11:50	The Southern Alps from the Generoso Basin to the Dolomites: a unique natural laboratory of tectonic and structural studies	Giovanni Bertotti VU Amsterdam & TU Delft
11:50 - 12:15	Stratigraphic and tectonic architecture of the Alpine Tethys margins	G. Manatschal, E. Masini & G. Mohn University of Strasbourg
12:15 - 13:30	<i>Lunch</i>	

13:30 - 13:40	Bernoulli and his margins	Helmut Weissert ETH Zurich
13:40 - 14:05	The long goodbye of carbonate cycles as reliable recorders of orbitally driven sea-level fluctuations	Gregor Eberli University of Miami
14:05 - 14:30	Albert of Arabia - Climatic and environmental reconstructions on stalagmites and lacustrine sediments from the Arabian Peninsula	Dominik Fleitmann University of Bern
14:30 - 14:55	From carbonate platforms to margin collapses: Comparing Alpine lake sediments with marine deposits	Flavio Anselmetti ETH Zurich
14:55 - 15:40 <i>Tea break & posters</i>		
15:40 - 16:05	Magnesium Isotopes: Establishing a new proxy in Earth Sciences	Adrian Immenhauser University of Bochum
16:05 - 16:30	Speleothems and climate: How we got started and where we are now	Stephen Burns Univ. of Massachusetts Amherst
16:30 - 16:55	Sedimentary Archives of Northern Alpine and Molasse Basin Neotectonics	Michael Strasser University of Bremen
16:55 - 17:20	Tracing Alpine sediment sources through detrital zircon laser-ablation U/Pb dating and Hf-isotopes - an appraisal	Wilfried Winkler, A. Beltan-Triviño, A. von Quadt , ETH Zurich

**Posters Bernoulli-Matter Symposium:
Room NO C-Floor**

Adatte T., Keller G., Khozyem Saleh H., Spangenberg J.	The Cretaceous-Tertiary transition in the Alps, new insights from Gams, Austria
Bonvallet L., Godet A., Spangenberg J. E., Föllmi K. B.	The Urgonian Formation in the Helvetic Alps (late Barremian to early Aptian): new evidences from the Interlaken area.
Kindler P., Ospina-Ostios L-M., Ragusa J., Wernli R.	The Voiron flysch (Voiron massif, Gurnigel nappe, Haute Savoie, France): a stack of km-sized flysch slices of Ultrahelvetic and north-Penninic origin
Morard A., Burkhalter R., Möri A., Strasky S.	Lithostratigraphic harmonisation – a corner stone for a digital geological map with nationwide coverage
Stockar R., Baumgartner P.O., Kocsis L., Ulianov A., Dumitrica P., Condon D.	The Meride Limestone (Monte San Giorgio, Ticino, Switzerland): a Ladinian archive of paleoenvironmental changes