



Symposia Program 14th Swiss Geoscience Meeting

Geneva, 18th – 19st November 2016

**Time in Geosciences:
Knowledge for a new beginning**

sc | nat 

Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DES SCIENCES
Section des sciences de la Terre
et de l'environnement



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The large cover picture is a detail of the time spiral designed by Graham, Newman, and Stacy, 2008, The geologic time spiral—A path to the past (ver. 1.1): U.S. Geological Survey General Information Product 58, poster, 1 sheet.

(Also available online at <http://pubs.usgs.gov/gip/2008/58/>)

The small cover picture shows a part of Eagle Nebula’s “Pillars of Creation”. Credits: NASA/ESA/Hubble Heritage Team (STScI/AURA)/J. Hester, P. Scowen (Arizona State University)

Welcome to Geneva and to the 14th Swiss Geoscience Meeting 2016

Dear Participants,

Welcome to Geneva! Thank you for joining us at the 14th Swiss Geoscience Meeting organised by the Section of Earth and Environmental Sciences of the University of Geneva under the auspices of the Swiss Academy of Sciences. The SGM success story, which started in 2003, is taking a new level this year with a record-breaking total of 481 abstracts submitted, and more than 600 participants expected. We warmly thank all session organizers for composing a very attractive scientific program.

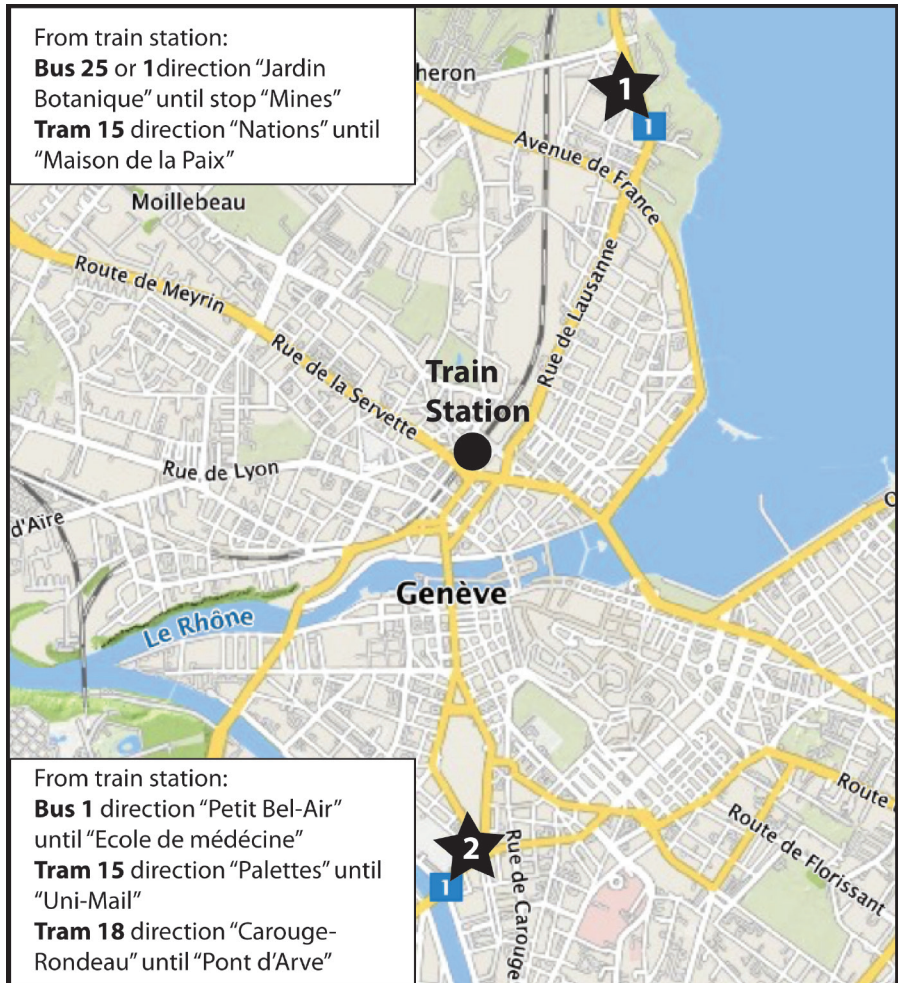
This year is also marked by the return of the Swiss Geoscience Master Congress (3rd edition after Zürich and Bern), which will take place at the Department of Earth Sciences of the University of Geneva on Thursday 17th of November, with more than 60 graduate students and dynamic future Swiss geoscientists.

On Friday 18th of November, in the Biotech campus, our four keynote speakers will focus on this year's theme "Time in Geosciences: Knowledge for a new beginning". Entering the Anthropocene, geosciences and geoscientists have major responsibilities and tasks towards our societies. Current issues of environmental change, energy resource availability and healthy living conditions require all our understanding of Earth's history and functioning. Klaus Mezger from the University of Bern and Andrew Knoll of Harvard University will take us far back to the origins of Earth and Life in deep time, unravelling physical and biological processes of the Earth system whose knowledge is a fundamental asset for adaptation to a changing planet. Edouard Bard of College de France will focus on environmental changes of the last 50 thousand years documented from carbon 14 variations on Earth. The plenary session will conclude with a presentation by Ulrike Niemeier of the Max Planck Institute for Meteorology who will discuss possible consequences, limits and uncertainties of climate-engineering techniques for reducing incoming solar radiation.

We hope this plenary session will inspire thinking around the broad notion of time at the heart of Geosciences, and how decoding the geological record of Earth's history in deep and recent time, the core competence of Earth Sciences, is central to face the grand societal and technical challenges of our changing planet.

On behalf of the organising committee,
Sébastien Castelltort

Location



Location (1): Friday, 18.11.2016
Auditorium, Campus Biotech
Chemin des Mines 9, 1202 Geneva

Location (2): Saturday, 19.11.2016
University of Geneva, UNIMAIL
Boulevard du Pont-d'Arve 40, 1205 Geneva

Host institutions

Section of Earth and Environmental Sciences of the University of Geneva

Patronage

Platform Geosciences of the Swiss Academy of Sciences, SCNAT

Participating societies and organisations

Commission of Limnology and Oceanography

Federal office of Topography (swisstopo)

International Union of Geodesy and Geophysics, Swiss Committee (IUGG)

International Union of Geological Sciences, Swiss Committee (IUGS)

Kommission der Schweizerischen Paläontologischen Abhandlungen (KSPA)

Muséum National d'Histoire Naturelle, Paris, France

ProClim – Forum for Climate and Global Change

Swiss Association of Energy Geoscientists (SASEG)

Swiss Association of Geographers (ASG)

Swiss Commission on Atmospheric Chemistry and Physics (ACP)

Swiss Commission for Phenology and Seasonality (CPS)

Swiss Commission for Remote Sensing (SCRS)

Swiss Committee for Stratigraphy (Platform Geosciences/SCNAT)

Swiss Gemmological Society (SGG-SSG)

Swiss Geodetic Commission (SGC)

Swiss Geological Society (SGG/SGS)

Swiss Geological Survey (swisstopo)

Swiss Geomorphological Society (SGGm/SSGm)

Swiss Geophysical Commission (SGPK)

Swiss Geotechnical Commission (SGTK)

Swiss Hydrogeological Society (SGH)

Swiss Hydrological Commission (CHy)

Swiss Paleontological Society (SPG/SPS)

Swiss Snow, Ice and Permafrost Society (SIP)

Swiss Society for Hydrology and Limnology (SGHL/SSHL)

Swiss Society for Quaternary Research (CH-QUAT)

Swiss Society of Mineralogy and Petrology (SMPG/SSMP)

Swiss Tectonics Studies Group (Swiss Geological Society)

Abstracts can be downloaded at:

<http://geoscience-meeting.ch/sgm2016/downloads/>

Local Committee

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Stéphanie Girardclos (core team)
Edwin Gnos (core team)
Elias Samankassou (core team)
Susanne Schmidt (onsite registrations desk and receipts)
Corine Frischknecht (exhibitors)
Massimo Chiaradia (posters)
Guy Simpson (posters)
Rossana Martini, Director of the department of Earth Sciences
Urs Schaltegger, President of the section of Earth Sciences
Daniel Ariztegui, Director of ELSTE
Pierre Dèzes (SGM coordination)

Exhibitors

CHGEOL
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Sponsors

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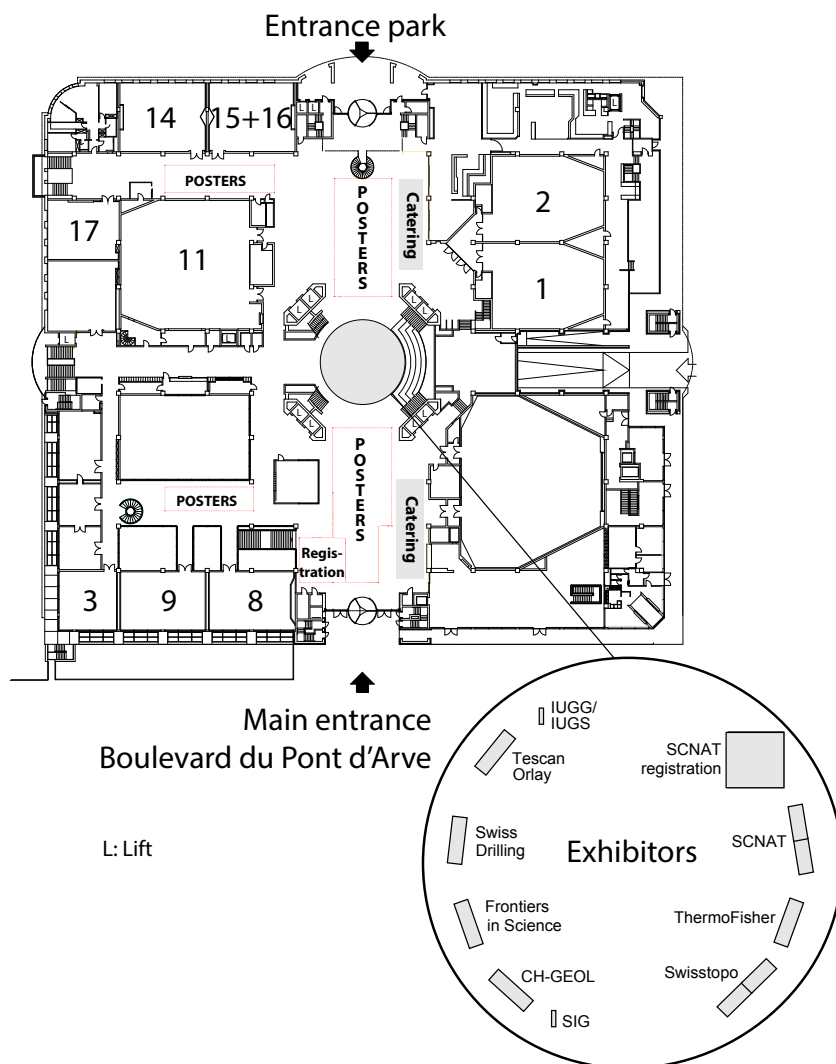
Lecture rooms, exhibitors and poster locations

Saturday 19.11.2016

University of Geneva, UNIMAIL

Boulevard du Pont-d'Arve 40, 1205 Geneva

Ground floor



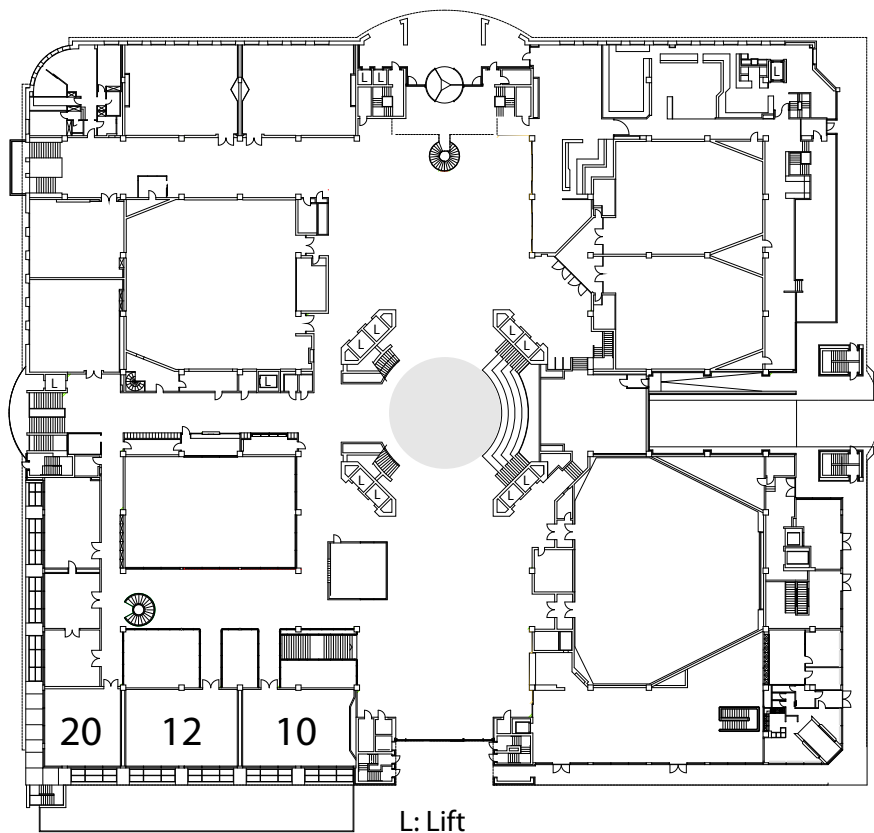
Lecture rooms

Saturday 19.11.2016

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First floor



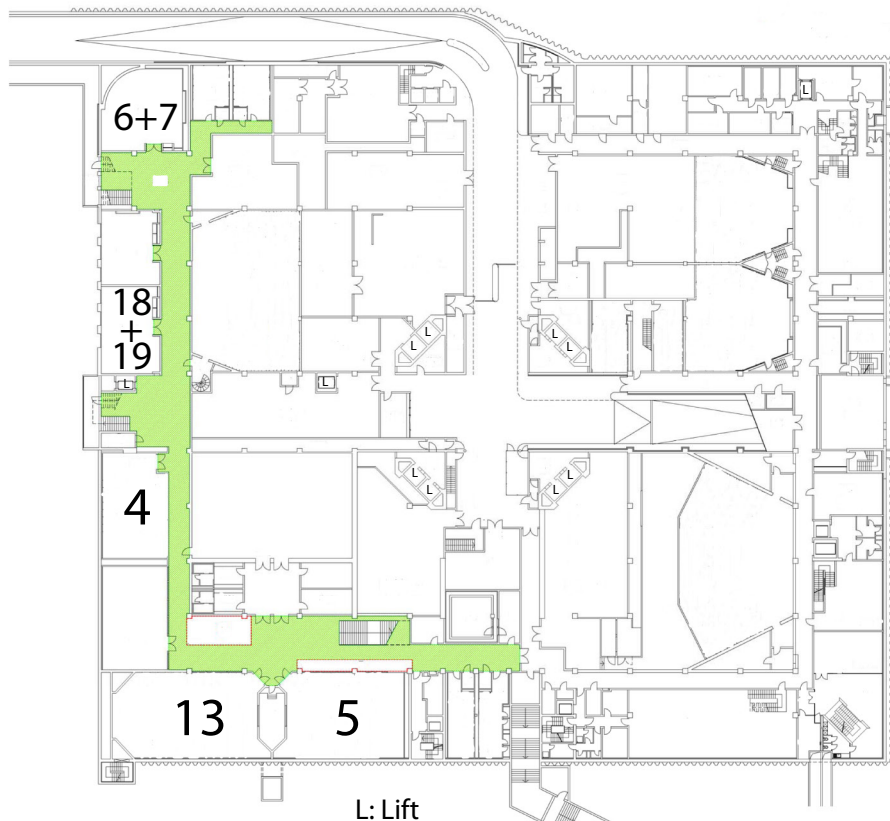
Lecture rooms

Saturday 19.11.2016

University of Geneva, UNIMAIL

Boulevard du Pont-d'Arve 40, 1205 Geneva

Floor -1



Plenary Session, “Time in Geosciences”

Friday November 18th

Auditorium, Campus Biotech, Chemin des Mines 9, Geneva

Chairperson: Sébastien Castelltort

13:30-13:45	Welcome address by the Dean of the Faculty of Sciences	Jérôme Lacour
	Welcome address by the Vice-Rector of the University of Geneva	Michel Oris
	Welcome address by the Minister of Planning, Accommodation and Energy of the Canton of Geneva	Antonio Hodgers

Chairperson: Sébastien Castelltort

13:45-13:55	Applying Geoscience for Climate by the Director of Energy Transition at Industrial Services of Geneva	Gilles Garazi
	Science and Society by the Director of the Natural History Museum of Geneva	Jacques Ayer

Chairperson: Urs Schaltegger

13:55-14:40	A Time-Line for the Formation of Terrestrial Planets	Klaus Mezger, University of Bern
14:40-15:25	The Proterozoic Eon: Life and Environments in Earth's Middle Age	Andrew Knoll, Harvard University
15:25-16:15	Coffee Break	

Chairperson: Rossana Martini

16:15-17:00	Radiocarbon as a geochronometer and as a tracer in paleoclimatology, geophysics and astrophysics	Edouard Bard, Collège de France
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Chairperson: Charles Fierz

17:00-17:45	<i>Joint SNC-IUGG & SNC-IUGS Union Lecture:</i> The Anthropocene: May we cure the symptoms of a changing climate?	Ulrike Niemeier, Max Planck Institute
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Chairperson: Pierre Dèzes

17:45-18:30	Platform Geosciences	Werner Eugster
	Géologie Vivante	Matthias Damo
	Congress "We scientists shape science"	Christian Preiswerk
	Presentation SGM 2017 in Davos	Jürg Schweizer
	Paul Niggli Medal	Rainer Wieler &
		Christoph Heinrich
	CHGEOL Award	Michael Schnellmann
	Swiss Geological Society Award	Guido Schreurs
	Acknowledgements	Sébastien Castelltort
18:30-22:30	Swiss Geoscience Party for registered participants	

Symposium Sessions, Saturday November 19th

University of Geneva, UNIMAIL, Bd du Pont-d'Arve 40, Geneva

1	Structural Geology, Tectonics and Geodynamics	p. 13
2	Mineralogy, Petrology, Geochemistry	p. 17
3	Gemmology	p. 22
4	Palaeontology	p. 23
5	The Sedimentary Record of Tectonic, Climatic and Environmental Change From Deep to Modern Times	p. 26
6	Stratigraphy	p. 29
7	Timing of Earth Processes: from dates to rates	p. 30
8	Rock mechanics, Rock physics and Geophysics	p. 33
9	Subsurface Geology & Geo-Energy	p. 36
10	Open Session in Geomorphology	p. 40
11	Quaternary environments: landscapes, climate, ecosystems, human activity during the past 2.6 million years	p. 42
12	Cryospheric Sciences	p. 47
13	Hydrology, Limnology and Hydrogeology	p. 50
14	Environmental Biogeochemistry of Trace Elements	p. 55
15	Linking Trace Element and Carbon Biogeochemistry	p. 58
16	Trace elements in aquatic ecosystems: from legacy to emerging pollutants	p. 60
17	Atmospheric Processes and Interactions with the Biosphere	p. 62
18	Phenology and seasonality (merged with 19)	p. 64
19	Earth Observation addressing key Earth System processes (merged with 18)	p. 64
20	Geoscience and Geoinformation – From data acquisition to modelling and visualisation	p. 66

Session 1: Structural Geology, Tectonics and Geodynamics

Room R290

Convenors: Guido Schreurs, Neil Mancktelow, Paul Tackley

Chairperson: Guido Schreurs

09:00-09:15	Gruber M., Sommaruga A., Mosar J.	Structural style of the Western Swiss Molasse Basin
09:15-09:30	Mosar J., Sommaruga A., Abenego M., Egli D., Gruber M., Ibele T., Kurmann-Matzenauer E., Nguyen V.-T., Schmitt N., Verbeken B., Vouillamoz N.	Swiss Molasse Basin: on faults and stress
09:30-09:45	Cardello G.L., Lupi M., Makhloufi Y., Do Couto D., Clerc N., Moscariello A., Sartori M. & Meyer M.	Fault evolution and fluid circulation in the Great Geneva Basin (Jura fold-and-thrust belt, France & Switzerland)
09:45-10:00	Nibourel L., Herwegh M., Berger A., Egli D., Schreurs G.	The role of mechanical anisotropies in the Neogene exhumation history of the Aar massif

10:00-11:30 Morning Poster Session with coffee

Chairperson: Neil Mancktelow

11:30-11:45	Bergemann C., Gnos E., Berger A., Whitehouse M.	Exhumation and brittle deformation of the Lepontine area dated through ion probe on hydrothermal cleft monazite
11:45-12:00	Manzotti P., Ballèvre M., Dal Piaz G.V.	Continental gabbros in the Dent Blanche klippe (Western Alps): inferences for the pre-Alpine crustal structure of the Adriatic palaeo-margin
12:00-12:15	Gauthiez-Putallaz L., Rubatto D., Hermann J., Martin L., Whitney D.	Water and trace element exchanges in the subducting slab: a SHRIMP oxygen isotope study in the Tavsanli zone, Turkey
12:15-12:30	Fischer, Gy., Kindler, P., Baldessin, E., Godefroid, F.	Tectonic control on carbonate sedimentation on the Mayaguana Bank (SE Bahamas) during the Neogene

12:30-14:00 Lunch and Poster Session

Chairperson: Paul Tackley

14:00-14:15	Sanan P., May D.A., Schenk O., Bollhöfer M., Rupp K., Tackley P.J.	Robust Multigrid Solvers for Highly Heterogeneous Stokes Flow
14:15-14:30	Fomin I., Tackley P.	Melting and melt segregation at the core-mantle boundary
14:30-14:45	Miller S.A.	Fluid-driven aftershocks and Omori's Law
14:45-15:00	Zwaan F., Schreurs G.	Effects of oblique extension and structural inheritance on rift interaction: results from 4D analogue models
15:00-15:15	Frehner M.	Fold axis rotation during transpressional folding: Insights from numerical modeling and application to the Zagros Simply Folded Belt
15:15-17:00	Afternoon Poster Session with coffee	

Posters Session 1:

P 1.1	Beaussier S., Gerya T., Burg J-P.	3D Thermomechanical modeling of the Wilson Cycle: From intraoceanic subduction initiation to obduction
P 1.2	Bower D.J., Wolf A.S., Sanan P.D., Tackley P.J.	Terrestrial magma ocean crystallisation: bottom-up or middle-out?
P 1.3	Diehl T., Kraft T., Lee T., Kissling E., Wiemer S.	Structure and mechanics of seismogenic fault zones in Switzerland: insights from microearthquake imaging
P 1.4	Duretz T., Petri B., Mohn G., Schmalholz S.M., Schenker F.L., Müntener O.	Evolution and architecture of continental passive margins: the role of structural softening
P 1.5	Hawemann F., Mancktelow N., Wex S., Pennacchioni G., Camacho A.	Intracontinental seismicity from 550 Ma to present day in the Musgrave Ranges of Central Australia
P 1.6	Kiss D., Duretz T., Podladchikov Y., Schmalholz S.M.	Dimensional analysis for the evolution of temperature and thickness of shear zones caused by shear heating

P 1.7	Liao, J., Gerya, T.	Oblique versus orthogonal collision influenced by lateral variations: 3D numerical modeling
P 1.8	Luyet M., Vouillamoz N., Blascheck P., Abednego M., Mosar J.	Seismotectonic study of microseismic sequences in North-Western Switzerland using sonograms and waveform similarity analysis.
P 1.9	Magott R., Fabbri O., Fournier M.	Polyphase ductile/brittle deformation along a major tectonic boundary in an ophiolitic nappe, Alpine Corsica: Insights on subduction zone intermediate-depth asperities
P 1.10	Manzotti P., Ballèvre M., Poujol M.	Sediment travel paths in the Carboniferous as recorded by detrital zircon geochronology in the Dora-Maira and Zone Houillère
P 1.11	Mauvilly J., Koiava K., Gamkrelidze I., Mosar J.	Tectonics in the Georgian Greater Caucasus: a structural cross-section in an inverted rifted basin setting
P 1.12	Mohammadi A., Burg J.-P., Guillong M.	Provenance, detrital zircon U-Pb geochronology, and tectonic significance of Eocene-Miocene sequence of onshore west Makran, South Iran
P 1.13	Munch J., Ueda K., Göğüş O.H., Burg JP., Gerya T.	Physical parameters controlling oroclinal development: Insights from numerical modelling
P 1.14	Nguyen V.-T., Gruber M., Schmitt N., Mosar J.	Structural and kinematic study of the strike-slip fault of Pontarlier
P 1.15	Preuss S.	Seismic cycle modeling on evolving faults: The question of fault branching
P 1.16	Ruh J.B., Vergés J.	Tectonic inversion of a basement-involved fold-and-thrust belt: Numerical modelling applied to the Kopet Dag Mountains
P 1.17	Schmitt N., Verbeken B., Grassi R., Miller S., Perrochet L., Valley B., Mosar J.	Fault anatomy and microtectonics of the La Sarraz strike-slip fault system
P 1.18	Schierjott J., Rozel A., Tackley P.	Influence of grain size evolution on the self-consistent generation of LLSVPs from primordial material and subducted MORB
P 1.19	Schmalholz S.M., Duretz T.	Impact of grain size reduction on pinch-and-swell formation

P 1.20	Schori M., Sommaruga A., Mosar J.	Triassic thickness compared to topography of the Swiss-French Alpine Foreland (Jura and Molasse Basin)
P 1.21	Spitz R., Schmalholz S.M., Kaus B.J.P.	3D numerical modeling with application to the Helvetic nappe system: Transition of viscous overthrusting to folding and oblique basal overthrusting
P 1.22	Stalder, N.F., Herman F., Reiners P.W., Aguilar G.	Late Cenozoic acceleration of erosion in the Southern Central Andes revealed by low- temperature thermochronology
P 1.23	Tackley P.J.	Scaling of Mixing Rate in Mantle Convection Models: Influence of Plate Tectonics, Melting and Crustal Production
P 1.24	Ueda K., Gerya T., Willett S.	Delamination, upper plate extension, and plate margin complexity
P 1.25	Rickenbacher M., Ziegler M.	Exfoliation fracture geometry as a new tool to infer principal stress ratios ?
P 1.26	Zwaan F., Schreurs G., Grau C., Gwerder R., Kamber R., Ziltener M., Wüst T..	4D analogue modeling of scissor tectonics

Session 2: Mineralogy, Petrology, Geochemistry

Room R280

Convenors: Sébastien Pilet, Bernard Grobéty, Eric Reusser

Chairperson: Sébastien Pilet

9:00-9:15	Bouvier A.-S., Manzini M., Métrich N., Baumgartner L.P.	Deciphering the different sources of Cl input into the mantle beneath St. Vincent (Lesser Antilles Arc): insight from B, O and Cl isotopes
9:15-9:30	Brett A., Diamond L.W.	Porosity and permeability evolution during epidosite alteration of the oceanic crust, Semail ophiolite, Oman
9:30-9:45	El Korh A., Luais B., Deloule E., Cividini D.	Iron stable isotope fractionation during subduction of basic rocks
9:45-10:00	Ewing T.A., Müntener O., Schaltegger U.	The mantle source of the early stages of island arc magmatism: evidence from Hf isotopes in rutile from the Kohistan complex
10:00-10:15	Tollan P.M.E., O'Neill H.St.C.	The role of trace and major element chemistry in controlling the solubility of water in upper mantle olivine

10:15-11:15 Morning Poster Session with coffee

Chairperson: Luca Caricchi

11:15-11:30	Hartung E., Caricchi L., Roggero D., Floess D., Wallis S., Harayama S.	The plutonic-volcanic connection: Insights from central Japan
11:30-11:45	Leuthold J., Lissenberg J., Falloo T., Ulmer P., O'Driscoll B., Klimentyeva D.	Partial melting of the mafic lower oceanic crust
11:45-12:00	McCarthy A., Othmar M.,	Decompression-driven crystallization of superheated melts: The formation of orbicules and comb layers in shallow subvolcanic conduits (Fisher Lake, USA)
12:00-12:15	Popkhadze N., Moritz R., Kekelia S.	Evolution of Volcanism at the Late Cretaceous Madneuli Copper gold-polymetallic deposit, Lesser Caucasus, Georgia

12:15-13:45 Lunch

Chairperson: Bernard Grob  ty

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|-------------|---|--|
| 13:45-14:00 | Maltese A., Mezger K.,
Pandey O.P.,
Upadhyay D. | Zircon U-Pb ages from the Bastar Craton, central India:
A Paleoproterozoic patchwork terrane. |
| 14:00-14:15 | Schenker F.L.,
Ambrosi C.,
Scapozza C., Maino M.,
Castelletti C., Antognini
M. & Gouffon Y. | The core of the Lepontine dome: new geological,
structural, metamorphic and geochronological data
(sheet Osogna, no. 1293,1:25'000) |
| 14:15-14:30 | Tedeschi M., Lanari P.,
Rubatto D., Hermann J.,
Pedrosa-Soares A.,
Dussin I., Pinheiro
M.A.P. | Reconstruction of high-pressure metamorphic conditions
from symplectites: insights from Pouso Alegre mafic
rocks (Bras  lia Belt, Brazil) |
| 14:30-14:45 | Pape J., Mezger K.,
Bouvier A.-S.,
Baumgartner L. | Analytical method development of high precision Mg
isotope measurements by SIMS for in-situ ²⁶ Al- ²⁶ Mg
mineral isochron dating of chondrites |
| 14:45-15:00 | Siron G.,
Baumgartner L.,
Bouvier A.-S.,
Vennemann T. | Control of water activity on the hydroxyl content of
biotite |

15:00-15:45 Afternoon Poster Session with coffee

Chairperson: Eric Reusser

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|-------------|---|---|
| 15:45-16:00 | B  gu   F., Baumgartner
L., Bouvier A.-S., Putlitz
B., Vennemann T. | Stable isotope exchange and reactive fluid-flow around
hydrothermal veins |
| 16:00-16:15 | Hovakimyan S.,
Moritz R., Tayan R.,
Melkonyan R.,
Harutyunyan M. | Regional strike-slip tectonics and porphyry Cu-Mo and
epithermal ore deposit formation during Cenozoic
subduction to post-collisional evolution of the
southernmost Lesser Caucasus, Tethyan belt |
| 16:15-16:30 | Richter L., Gutzmer J.,
Atanasova P., Banks D. | Xenotime formation in a low-temperature hydrothermal
environment, Browns Range, WA |
| 16:30-16:45 | Kong X.-Z., Saar M.O. | Implications of hydrothermal flow-through experiments
on deep geothermal energy utilization |
| 16:45-17:00 | Zanoni G.,   gvi   B.,
Moscarello A. | Clay mineral diagenesis in Cretaceous Dentale and
Gamba clastic reservoirs from the South Gabon Basin
(West African passive margin) – new insights on the
regional geology and basin evolution history |

Posters Session 2:

P 2.1	Edwards M., Pioli L., Andronico D., Cristaldi A., Scollo S.	Characterising the May 2016 eruption of Mt Etna, Italy
P 2.2	Scrignari M., Pioli L., Andronico D., Caricchi L.	Driving Mechanisms of 1651-53 and 2002 Eruptions at Etna Volcano (Italy)
P 2.3	Demers-Roberge A., Kaczmarek M.-A., Pilet S., Roggero D., Müntener O.	Peridotite xenoliths from Sierra Baguales: Insights into melting and refertilization processes into the mantle wedge
P 2.4	Roggero D., Müntener O., Pilet S.	Neogene back-arc basaltic magmatism in the Sierra Baguales (southern Patagonia): are there alternatives to teared slabs and slab window models?
P 2.5	Curry A., Caricchi L., Lipman P.	Determining the physical processes behind four large eruptions in rapid sequence
P 2.6	Nformidah-Ndah S.S., Kaba M., Tene Djoukam J.F., Borba de Carvalho B.M., Kovacs I., Kirali E., Tchouankoue J.P., Hermann J.	Petrography and mineral chemistry of mantle xenoliths from maars in Cameroon: implications for the nature of the mantle and CO ₂ concentrations below the Cameroon Volcanic Line
P 2.7	Kaufmann A., Pettke T., Baumgartner L.	The magmatic-hydrothermal transition at the Torres del Paine igneous complex, Chile – first results of an on-going fluid/melt inclusion study
P 2.8	Lechmann A.K., Burg J.-P., Ulmer, P., Guillong, M., Faridi M.	Middle Miocene to Quaternary volcanism in NW Iranian Azerbaijan: implications for the evolution of the Turkish-Iranian Plateau from geochemical, isotopic and geochronological data
P 2.9	Pandey O.P., Mezger K., Upadhyay D., Singh A.K., Maltese A.	Mafic dyke swarms in global geodynamics: Examples from Singhbhum and Bastar cratons, India
P 2.10	Probst L., Pioli L., Bali E., Simpson G., Caricchi L.	Temporal variations of mineral chemistry during the 2014-2015 Holuhraun-Bárðarbunga eruption
P 2.11	Seitz S., Putlitz B., Baumgartner L., Bouvier A.-S.	The role of crustal melting in the formation of rhyolites: constraints from SIMS oxygen isotope data (Chon Aike Province, Patagonia)

P 2.12	Belgrano T.M., Diamond L.W., Vogt Y., Gilgen S.A., Brett A., Al-Tobi K.	A new volcanic map of the Semail Ophiolite, Oman using a combined field, geochemical and aeromagnetic approach
P 2.13	Bonta, M., Serneels, V.	Historical Iron smelting in Kaniasso, Ivory Coast: technological change and exchange at Siola and Doubala
P 2.14	Chalal Y., Lerari N.	ElBema-East Taourirt granite (Hoggar central- Algeria): RMG or not RMG
P 2.15	Pujol Solà N., Chairadia M., Aiuppa A., Paonita A., Rizzo A.	Metal geochemistry and Cu-Zn isotope compositions of volcanic gas condensates and volcanic rocks: Vulcano Island, Italy
P 2.16	Jollands M.C., Ulyanov A., Müntener O.	Protocol for Be analysis by LA-ICP-MS and Be distribution in some olivine- and pyroxene-bearing rocks
P 2.17	Farré de Pablo J., Chairadia M., Rizzo A., Landi P.	Geochemistry and Cu, Zn isotope composition of volcanic rocks in Stromboli Island, Italy
P 2.18	Weber G., Probst L., Schaltegger U., Arce J.L., Caricchi L.	Construction, architecture and evolution of the plumbing system of Nevado de Toluca volcano (Mexico)
P 2.19	Mirza A., Ilbeyli N.	Field, Mineralogical and Petrographical Characteristics of the Ladakh Batholith in NW India
P 2.20	Shengelia D., Tsutsunava T., Chichinadze G., Beridze G., Vardanashvili K., Javakhishvili I.	Petrogenetic and geodynamic types of Late Paleozoic (Sudetic) granitoids of the Caucasus
P 2.21	Frøystein M., Heinrich C.	Relative timing and characterization of Au-associated veins in the Gotthard Massif, Graubünden, Switzerland
P 2.22	Fisch M., Eggenberger U., Kündig R.	Inventory of Swiss gravel wash mud
P 2.23	Schlatter D.M., Schlöglova K., Hughes J.	Comparisons of Paleoproterozoic orogenic gold deposits/occurrences of Nalunaq and Vagar in South Greenland and Svartliden in Northern Sweden

P 2.24	Huseynova A.	Correlation of reservoir properties of productive series and the red series within Absheron-Pribalkhan threshold
P 2.25	Ivanić M., Škapin S.D., Vdović N., Mikac N. & Sondi I.	Size Dependant Physico-Chemical and Geochemical Characteristics of Two Distinct Carbonate-Rich Marine Sediments (Adriatic Sea)
P 2.26	Kempf E., Hermann J., Reusser E.	Monitoring dehydration reactions in subducted serpentinites by metamorphic olivine formation in the Zermatt-Saas Ophiolites
P 2.27	Lafay R., Baumgartner L.P.	Textural characterization of forsterite + talc assemblage resulting from antigorite breakdown in the bergell contact aureole (Italy)
P 2.28	Ricchi E., Gnoss E., Bergemann C.	Crystallization ages of Alpine cleft monazite; correlation with exhumation history and shear zone activity
P 2.29	Oliveras M., Kouzmanov K., Schlöglová K., De los Santos M.	Composition, origin and time evolution of ore-forming fluids and trace element geochemistry of enargite in the Lepanto epithermal high-sulfidation deposit (Philippines)
P 2.30	Perroud P., Schmidt S.Th., Süssenberger A.	OPTiCMin©: a new electronic teaching tool for optical mineral identification
P 2.31	Peters, D., Pettke, T.	Evaluation of major to ultra trace element bulk rock chemical analysis of nanoparticulate pressed powder pellets by LA-ICP-MS
P 2.32	Ordóñez L., Ariztegui D., Chiaradia M., Vogel H., Morlock M., Melles M., Russell J.M., Bijaksana S., & the TDP scientific team	Fe isotopes as indicators of bio-geochemical cycling in Lake Towuti (Indonesia)
P 2.33	DuPasquier A., Grolimund D., Pena J., Verrecchia E.P.	Manganese oxides in travertines from Skoura (Morocco): geochemical or biological deposits?

Session 3: **Gemmology**

Room R150

Convenors: Michael S. Krzemnicki, Laurent E. Cartier

12:00-14:00 Lunch

Chairpersons: Laurent Cartier, Michael Krzemnicki

14:00-14:15	Wang H. A.O., Krzemnicki M. S., Chalain J.-P., Lefèvre P., Zhou W., Cartier L.E.	Simultaneous High Sensitivity Trace Element and Isotopic Analysis for Gemstones using Laser Ablation Inductively Coupled Plasma Time-Of-Flight Mass Spectrometry
14:15-14:30	Franz L., Hänni H.A., Zhou W.	Sannan-Skarn: a new ornamental gemstone from Pakistan
14:30-14:45	Krzemnicki M.S., Mannes D. Marti, R., Jerjen I., Lehmann E.	3D Visualisation of inclusion features in emerald with neutron and X-ray tomography
14:45-15:00	Cartier L.E., Krzemnicki M.S.	Golden South Sea Cultured Pearls: Cultivation, Species Determination and Treatment Detection
15:00-16:00	Afternoon Poster Session with coffee	

Session 4: Palaeontology

Room S130

Convenors: Christian Klug, Torsten Scheyer, Lionel Cavin

Chairperson: Lionel Cavin

9.00-9.15	Baumgartner Peter O., Dumitrica P., Kukoc D., Andjic G.	Revision of some Late Cretaceous multicystid Nassellaria, a contribution to the biostratigraphy the Caribbean Large Igneous Province
9.15-9.30	Antcliffe Jonathan B.	The Ecology of the Ediacaran Biota
9.30-9.45	Daley Allison C.	The ecology and evolution of the anomalocaridids
9.45-10.00	Drage Harriet B., Holmes J.D., García-Bellido D.C., Daley A.C.	Detailed trilobite moulting behaviour preserved in the Emu Bay Shale, South Australia
10.00-10.15	Pates Stephen, Daley A.C.	The taxonomy and ecology of <i>Caryosyntrips</i> , a radiodontan from the Cambrian of Canada, Spain and the USA

10:15-11:00 Morning Poster Session with coffee

Chairperson: Christian Klug

11.00-11.15	Etter W.	Palaeoecology of the Lower Jurassic Schambelen member of northern Switzerland
11.15-11.30	Klug Ch., Frey L., Korn D., Jattiot R., Rücklin M.	No fossil record? Yes fossil record! Konservat- Lagerstätten of the End-Devonian Hangenberg Black Shale in the eastern Anti-Atlas (Morocco)
11.30-11.45	Frey L., Coates M., Ginter M., Klug C.	The first skeletal remains of <i>Phoebodus politus</i> Newberry 1889 (Chondrichthyes: Elasmobranchii) and its ecology
11.45-12.00	Jattiot R., Bucher H., Brayard A., Brosse M., Jenks J., Bylund K.G.	A new key Smithian (Early Triassic) quantitative ammonoid biochronology from the western USA basin
12.00-12.15	Brosse M., Baud A., Bucher H., Goudemand N., Nützel A., Ware D., Frisk A., Hagdorn H.	Basal Triassic exotic blocks from Oman: The promised land, no raft of the Medusa

12:15-13:45 Lunch

Chairperson: Loïc Costeur

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| 13.45-14.00 | Carrillo Briceño J. D.,
Luz Z., Hendy A.,
Jaramillo C.,
Vennemann T.W., Kocsis L.,
Sánchez-Villagra M.R. | Colombian fossil elasmobranchs from the "last days"
of the Central America Seaway and their
environmental significance |
| 14.00-14.15 | Carrillo J. D. | Endemic South American mammals from the
Neotropics: phylogeny, diversity, and implications for
the Great American Biotic Interchange |
| 14.15-14.30 | Martini P., Geraads D., Le
Tensorer J.-M., Costeur L. | Cranial morphology of Recent and Pleistocene
camels |
| 14.30-14.45 | Costeur L., Mennecart B. | The ear before birth: morphology, ossification timing,
and allometry |
| 14.45-15.00 | Mennecart B., Costeur L. | How does bony labyrinth morphology help resolve
the phylogeny and diversification timing of deer? |
| 15.00-15.15 | Belvedere M., Marty D.,
Stevens K., Ernst S.,
Razzolini N.L., Paratte G.,
Cattin M., Lovis C.,
Meyer C.A. | Minute sauropod tracks from the Late Jurassic of
Canton Jura: babies or dwarfs? Morphological and
behavioural evidences |

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

Chairperson: Walter Joyce

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| 16.00-16.15 | Ferrante Ch.,
Vennemann T., Cavin L.,
Martini R. | Histology and geochemical study of bones of an
<i>Allosaurus</i> (Dinosauria: Theropoda) |
| 16.15-16.30 | Foth Ch., Joyce W.G. | Skull shape variation in recent and fossil turtles
through time and its relation to climate, habitat and
feeding ecology |
| 16.30-16.45 | Anquetin J., Tong H.,
Claude J. | The neck of the Late Jurassic <i>Platycheilus</i>
<i>oberndorferi</i> and the origin of neck retraction
mechanisms in turtles |
| 16.45-17.00 | Vasilyan D. | Herpetofauna of the early MP 16, Bartonian, Middle
Eocene of Switzerland |

17.00-17.15 KSPA

Swiss Commission of Palaeontology Prize

Posters Session 4:

P 4.1	Burek I., Comment G., Anquetin J.	A paleontological field school organized in Canton Jura
P 4.2	Becker D., Tissier J., Costeur L., Antoine P.-O.	Mid-Oligocene Rhinocerotidae from Bumbach (Switzerland)
P 4.3	Bischof E.A.	Insights into the Cidarid Echinoids from the Middle Oxfordian St. Ursanne Formation of the Swiss Jura Mountains
P 4.4	Boivin S., Lathuilière B., Durllet C., Lazar I., Martindale R., El Khmidi K., Martini R.	Hettangian-Sinemurian coral association of Amellago area (High Atlas, Morocco): first approach.
P 4.5	Burek, I.	Comparative cranial morphology of <i>Desmatochelys lowii</i> and modern marine turtles
P 4.6	Chacko M.R., Carrillo- Briceño J.D.	A marine bony fish assemblage (Teleostei) from the early Miocene of the Southern Caribbean (Cocinetas Basin, Guajira Peninsula)
P 4.7	Bapst L., Costeur L., Becker D.	Tooth mesowear highlights perissodactyl diets and environments in the Palaeocene of Europe
P 4.8	Mennecart B., Jouve S., Douteau J., Jalil N.-E.	The oldest durophagous Thalattosuchian (Crocodylomorpha, Machimosaurini) from the lower Bathonian of Central High Atlas, Morocco
P 4.9	Peyrotty G., Peybernes C., Onoue T., Ueda H., Martini R.	Upper Triassic limestones from central and SW Hokkaido, Japan: a new insight on the Panthalassa Ocean
P 4.10	Scherz K.	An assessment of the phylogeny of cats (Felidae), including <i>Smilodon gracilis</i> , using the morphology of the petrosal bone
P 4.11	Scheyer T.M., Neenan J.M., Bodogan T., Furrer H., Plamondon, M.	A new, exceptionally preserved juvenile reptilian fossil (Diapsida) from the Middle Triassic of Ducan, Canton Grisons, Switzerland
P 4.12	Tissier J., Becker D., Codrea V., Costeur L., Fărcaș C., Solomon A., Venczel M., Maridet O.	New material of amynodontids (Mammalia, Perissodactyla) from Romania
P 4.13	Hoffmann R., Weinkauff M.F.G., Fuchs D.	Grasping the shape of belemnoid arm hooks – a quantitative approach

Session 5: The Sedimentary Record of Tectonic, Climatic and Environmental Change From Deep to Modern Times

Room S160

Convenors: Sébastien Castelltort, Samuel Jaccard, Adrian Gilli, Karl Föllmi

Chairpersons: Sébastien Castelltort, Samuel Jaccard, Adrian Gilli, Karl Föllmi

9:00-9:15	Adatte T., Font E., Mbabi Bitchong A., Sordet V., Keller G., Schoene B., Samperton, K., Khadri S.	Timing and tempo of Deccan volcanism, evidence from mercury anomalies
9:15-9:30	Baldessin E., Machel H., Kindler P., Chiaradia M.	New constraints on the timing of dolomitization episodes in the Bahamas during the Neogene: the Sr-isotope data from Mayaguana.
9:30-9:45	Baumgartner-Mora C., Andjic G., Baumgartner P.O.	Punctuated chlorozoan carbonate paleo-environments – A biotic response to accretion tectonics and stalled arc activity (Late Cretaceous-Cenozoic, Caribbean Plate)
9:45-10:00	Charbonnier G., Morales C., Duchamp-Alphonse S., Westermann S., Adatte T., Föllmi K.B.	Mercury enrichment indicates volcanic triggering of the Valanginian Weissert episode

10:00-10:30 Morning Poster Session with coffee

Chairpersons: Sébastien Castelltort, Samuel Jaccard, Adrian Gilli, Karl Föllmi

10:30-11:00	Meier, M.M.M. (Recipient Paul Niggli Medal)	Meteorites and micrometeorites from sediments – identification and characterization using noble gases
11:00-11:15	Schöllhorn I., Gertsch B., Adatte T., Houben A., Spangenberg J., Schwennicke T., Föllmi K.B.	Depositional mechanisms and environmental conditions leading to the formation of phosphorite in the El Cien Formation (Oligocene-Miocene; Baja California-Mexico)
11:15-11:30	Hunger G., Moscariello A., Ventra D., Veiga G.D.	Compositional changes related to non-steady state conditions during deposition of a Miocene sedimentary basin infill, Central Argentinian Foreland (Mendoza province)
11:30-11:45	Fantasia A., Föllmi K.B., Adatte T., Scasso R.A., Spangenberg J.E., Schoene B., Barker R.T.	The Cañadón Asfalto Formation, Argentina: sedimentology and paleoenvironments

11:45-12:00	Chen C., Castelltort S., Guerit L., Paola C., Foreman B.	Grain size evolution in fluvial deposits during global warming at the Paleocene-Eocene boundary, Tremp formation, Spain
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12:00-14:00 Lunch

Chairpersons: Sébastien Castelltort, Samuel Jaccard, Adrian Gilli, Karl Föllmi

14:00-14:15	Malatesta L.C., Avouac J-P., Brown N., Berger Q., Breitenbach S., Pan J., Chevalier M-C., Rhodes E., Saint-Carlier D., Zhang W., Poisson B.	Buffering and mixing of sediment flux across the north piedmont of the Tian Shan
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14:15-14:30	Litty C., Lanari P., Burn M., Schlunegger F.	Climatic control on sediment provenance inferred from detrital zircon ages, Western Peruvian Andes
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14:30-14:45	Perret M., Segvic B., Puigdefabregas C., Moscarello A., Clark J., Fildani A., Dykstra M., Castelltort S.	Petrography and clay mineralogy of Eocene clastic rocks from the Tremp-Graus-Ainsa basin, Southern Pyrenean Foreland (Spain) – Reconstruction of sediment provenance and burial diagenesis
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14:45-15:00	Cartapanis O., Galbraith E.D., Bianchi D., Jaccard S.L.	Changes in the global burial rate of carbon in marine sediments and atmospheric CO ₂ variations over the last glacial cycle
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15:00-15:15	Kindler P., Revillon S., Vimpere L., Godefroid F.	Elevated corallgal bioherms from Long Island (Bahamas): a testimony of recent tectonic uplift or of a high sea level during Marine Isotope Stage 7
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15:15-16:00 Afternoon Poster Session with coffee

Posters Session 5:

P 5.1	Blattmann F., Schenker T., Picotti V., Cobianchi M.	Reconstructing the Evolution of the Northwestern Friuli Platform Margin Based on Microfacies
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P 5.2	Fentimen R., Lim A., El Kateb A., Wheeler A., Spezzaferri S.	Benthic foraminiferal assemblages from small scaled Cold-water coral habitats : the Moira Mounds
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P 5.3	Foubert A., Jaramillo-Vogel D., De Boever E., Feenstra E., Hamaekers H., Krause S.	High-resolution visualization of microbial carbonates using μ -CT: Insights from field and lab experiments
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P 5.4	Chen C., Castelltort S., Guerit L., Paola C., Foreman B.	Laboratory experiments of autogenic fluvial progradation above incised-valley fills during sea-level rise
P 5.5	Lathion R., Le Cottonnec A., Moscariello A.	Sedimentology and stratigraphic architecture of an incised valley fill, Late Carboniferous (Eastern Kentucky, USA).
P 5.6	Honegger L., Castelltort S., Clark J., Adatte T., Puigdefàbregas C., Dykstra M., Fildani A., Spangenberg J.	$\delta^{13}\text{C}$ as a tool for sequence stratigraphy correlations in the South Pyrenean foreland basin, Spain
P 5.7	Hunger T., Adatte T., Kouzmanov K., Castelltort S.	Climatic signals in the Paleocene fluvial formation of Tremp, Pyrenees, Spain.
P 5.8	Shawwa N.A., Chesnel V., Merino-Tomé Ó., Fernández L.P., Šegvić B., Samankassou E.	Linking subaerial exposures to paleoenvironments and paleoclimates (Valdorra carbonate platform, northern Spain)
P 5.9	Läuchli C., Garcès M., Valero L., Clark J., Puigdefàbregas C., Adatte T., Castelltort S.	Multiproxy approach to climate signals in the middle-upper Eocene deposits of the Ainsa Basin, Spain
P 5.10	Ambrosi C., Bernoulli D., Scapozza C., Schenker F., Dall'Agnolo S.	The new geological map of the area between Mendrisio (Switzerland), Como and Varese: 300 million years of geological history.
P 5.11	Stutenbecker L., Berger A., Schlunegger F.	Detrital garnet fingerprint of the Central Swiss Alps
P 5.12	Madella A., Delunel R., Blard P-H., Akçar N., Schlunegger F., Christl M.	Paleo-erosion rates and paleo-elevation inferred through cosmogenic ^{10}Be and ^{21}Ne in northernmost Chile
P 5.13	Amsler H.E., Jaccard S.L., McCave I.N., Ikehara M.	Variations in near-bottom flow of ACC during past glacial cycle in SW Indian Ocean
P 5.14	Oesch L., Sigman D.M., Studer A.S., Haug G.H.	Nitrogen isotope changes in the equatorial Atlantic during Plio-Pleistocene Transition
P 5.15	Kremer K., Wirth S.B., Reusch A., Fäh D., Bellwald B., Anselmetti F.S., Girardclos S., Strasser M.	Epicentres and magnitudes of possible paleoearthquakes based on lacustrine sediment records in Switzerland

Session 6: Stratigraphy

Room S050

Convenors: Alain Morard, Reto Burkhalter, Oliver Kempf & Ursula Menkveld-Gfeller

12:00-14:00 Lunch

Chairperson: Reto Burkhalter:

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| 14:00-14:20 | Pictet A., Mojon P.-O.,
Spangenberg J. | A critical revision of the Hauterivian to Aptian
sediments of the Jura Mountains (France and
Switzerland) |
| 14:20-14:40 | Jordan P., Brugger J.,
Pietsch J., Abdelsayed M.,
Fuchs G., Neubert M. | Preliminary results from the Grandfontaine deep
borehole (Ajoie, Canton of Jura, Switzerland) |
| 14:40-15:00 | Adams A., Diamond L.,
Aschwanden L. | Dolomitization in an Inverted Mixing Zone (Stamberg-
Member) |

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

Chairperson: Alain Morard

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| 15:40-16:00 | Baud A., Plasencia P.,
Hirsch F., Richoz S. | Middle Triassic stratigraphy of the Swiss Prealps
revisited |
| 16:00-16:20 | Brack P., Wotzlaw J.-F.,
Storck J.-C. | Bedding patterns in hemipelagic carbonates: the case
of the Middle Triassic Buchenstein Formation
(Southern Alps, Italy) |

Posters Session 6:

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| P 6.1 | Khojastehfar M.,
Aharipour R. | Study of microfacies, sedimentary environment and
diagenetic processes of the Qom Formation in the
southwest of Sorkheh (Semnan) |
| P 6.2 | Koiava K., Mosar J.,
Kvaliashvili L., Mauvilly J. | About the Konkian/Sarmatian boundary of Georgia
based on Foraminifera |

Session 7: Timing of Earth Processes: from dates to rates

Room S050

Convenors: Urs Schaltegger, Jörn-Frederik Wotzlaw

Chairpersons: Urs Schaltegger, Jörn-Frederik Wotzlaw

09:00-09:15	Farina F., Dini A., Ovtcharova M., Bouvier AS., Baumgartner L., Schaltegger U.	Petrogenesis of the two mica-cordierite granites from the Larderello-Travale geothermal field revealed by oxygen isotopes and high-precision zircon U-Pb geochronology
09:15-09:30	Augland L.E., Jones M.T., Svensen H. & Tegner C.	Closing in on the Palaeocene-Eocene Thermal Maximum in the North Atlantic: chronostratigraphy and ash bed provenance through high precision U-Pb and Lu-Hf isotopic analyses of zircons
09:30-09:45	Baresel B., Bucher H., Bagherpour B., Brosse M., Guodun K., Schaltegger U.	Timing of global regression and microbial bloom marking the Permo-Triassic mass extinction
09:45-10:00	Buret Y., von Quadt A., Wotzlaw J.F., Roozen S., Heinrich C.A.	Linking the timing of porphyry Cu deposit formation to nearby volcanism using zircon geochemistry and high-precision CA-ID-TIMS geochronology

10:00-10:30 Morning Poster Session with coffee

Chairpersons: Urs Schaltegger, Jörn-Frederik Wotzlaw

10:30-11:00	Schoene, B.	Keynote: Evaluating and improving the gold standard: ID-TIMS U-Pb geochronology applied to the stratigraphic record
11:00-11:15	Naumenko-Dèzes M., Nägler T.F., Mezger K., Villa I.M.	Constraining the 40K decay constant for Ar-Ar dating
11:15-11:30	Mintrone M., Moyen J.F., Chelle-Michou C., Caddick M., Couzinié S., Vézinet A., Laurent O.	Contrasted rates of melting and exhumation of a post-orogenic crust: an integrated thermodynamic, geochronologic and thermochronologic study
11:30-11:45	Rezeau H., Moritz R., Wotzlaw J.F., Tayan R., Hovakimyan S., Ulianov A.	Timing of collisional magmatism in the southernmost Lesser Caucasus: Insights from geochronology and geochemistry

11:45-12:00	Szymanowski D., Wotzlav J.F., Ellis B.S., Bachmann O., von Quadt A.	Prolonged low-temperature storage of supervolcanic magma reservoirs recorded by zircon and titanite petrochronology
12:00-12:15	Rubatto D., Boston K., Hermann J., Engi M., Amelin Y.	U-Pb geochronology of mid-grade metamorphism in the Central Alps: when zircon is not an option
12:15-14:00	Lunch	

Posters Session 7:

P 7.1	Shengelia D., Tsutsunava T., Chichinadze G., Beridze G., Javakhishvili I.	LA-ICP-MS local zircon U-Pb dating of Late Variscan granites of the Dzirula and Khrami crystalline massifs (Georgia)
P 7.2	Loretz M., von Quadt A., Peytcheva I.	In-situ Sr measurements and Zircon analysis of aplitic dykes in Cu-Au-(Mo) porphyry deposit Elatsite, Bulgaria
P 7.3	Magalhães J., Pedrosa-Soares A., Dussin I., Müntener O., Knauer L.G.	Statherian bimodal volcanic and anorogenic intrusive rocks in northern Guanhões Block, SE Brazil: an episode of continental rift
P 7.4	Palacz Z.	High precision Nd isotope ratio measurements by Thermal Ionization Mass Spectrometer with Faraday collectors equipped with 1e12 ohm feedback resistors
P 7.5	Schaltegger U., Davies J.H.F.L., Palacz Z.	First high-precision U-Pb dates from the new Phoenix TIMS at University of Geneva
P 7.6	Sheldrake T., Caricchi L.	Variations in the frequency and magnitude of volcanic eruptions at arc volcanoes
P 7.7	Storck J.-C., Brack P., Wotzlav J.-F., Ulmer P., von Quadt A.	A geochronologic framework for Middle Triassic magmatism and sedimentation in the Southern Alps
P 7.8	von Quadt A., Wotzlav J.F., Buret Y., Large S., Peytcheva I., Szymanowski D.	Zircon U-Pb geochronology at the 0.1 ‰ level by ID-TIMS using 1013 Ω resistors
P 7.9	Widmann P., Davies J., Schaltegger U.	The effect of chemical abrasion on zircon chemistry, crystal structure and ID-TIMS-U-Pb ages

P 7.10	Wotzlaw J.F., Kremer K.	From discrete dates to continuous age: A systematic comparison of currently available age modeling software
P 7.11	Davies J.H.F.L., Seydoux-Guillaume A.M., Heaman L., Marzoli A., Schaltegger U.	The response of Baddeleyite to radiation damage, and how this relates to Pb loss
P 7.12	Lu Gang, Di Capua A., Winkler W., Willett S., von Quadt A., Fellin M.G., Rahn M., Brack P.	Discriminating age and type of detrital sources in the Taveyannaz Formation (Northern Alpine early foreland basin)
P 7.13	Large S.J.E., von Quadt A., Wotzlaw J.F., Heinrich C.A.	Zircon petrochronology revealing the shallow-crustal magmatic evolution and timescales of mineralization at the Ok Tedi porphyry-skarn Cu-Au deposit

Session 8: Rock mechanics, Rock physics and Geophysics

Room R170

Convenors: Marie Violay, Brice Lecampion, Claudio Madonna, Matteo Lupi, György Hetényi

Chairpersons: György Hetényi, Matteo Lupi, Anne Obermann

9:00-9:15	Duran J.A., Obermann A.	2D sensitivity kernels for monitoring weak changes on highly heterogeneous elastic medium
9:15-9:30	Pirot G., Linde N., Mariethoz G., Bradford J.	Geophysical data inversion with graph cuts under geological realism constraint
9:30-9:45	Häusler M., Schmelzbach C., Sollberger D.	A new seismic vector source: the Galperin source
9:45-10:00	Carrier A., Lupi M., Haddad A., Baron L., Linde N.	Bouguer anomaly inversion at the Nirano Mud Volcanic Field, Italy, to infer depth and density variations of hydrocarbon and mud reservoirs

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

Chairpersons: Brice Lecampion, Claudio Madonna, Marie Violay

11:00-11:15	Barnhoorn A., Verheij J., Frehner M.	Transition from elastic to inelastic deformation identified by seismic attenuation, not seismic velocity
11:15-11:30	Somogyvári M., Jalali M., Bayer P.	Fracture network characterization using a stochastic transdimensional algorithm
11:30-11:45	Zbinden D., Pio Rinaldi A., Urpi L. & Wiemer S.	Coupled hydro-mechanical modelling of seismicity induced by gas production
11:45-12:00	Malvoisin B., Podladchikov Y.Y., Connolly J.A.D.	Role of metamorphic reactions on deformation and fluid flow: a new fully-coupled model

12:00-14:00 Lunch

Posters Session 8:

P 8.1	Acosta M., Passelegue F., Schubnel A., Violay M.	An experimental study of the influence of pore water on dynamic rupture processes.
P 8.2	Wenning Q., Madonna C., Moulas E., Burg, J.P.	Petrophysical properties through a Grimsel granodiorite shear zone – Implications for geothermal reservoir evaluation and modelling
P 8.3	Ciarlo F., Lecampion B.	Modelling of fluid injection into a frictional weakening dilatant fault
P 8.4	Hefny M., Zappone A., Madonna C., Moscariello A., Burg J.P.	Geothermal potential of the Geneva Basin: the aid of petrophysical laboratory data
P 8.5	Nikolskiy, D., Lecampion, B.	Simulating fully three dimensional pressurized fracture propagation
P 8.6	Cornelio C., Violay M., Spagnuolo E.	Viscosity fluid influence on stick-slip motions
P 8.7	Dutler N., Valley B., Krietsch H., Amann F., Gisgich V. & Evans K.	Stress Characterisation and stress modeling at the Grimsel Test Site for the In-situ Stimulation and Circulation Project
P 8.8	Blum T., Lecampion B.	Acoustic monitoring of laboratory hydraulic fracture growth under stress and pore pressure
P 8.9	Dombrowski E., Vogler D., Walsh S.D.C., Perras M.A.	Towards Replicating Rock Specimens: A Comparison of Tensile Fractures from 3D Printed and Natural Sandstones
P 8.10	Hunziker J., Favino M., Caspari E., Quinta B.I., Krause R., Holliger K.	Numerical modeling of seismic attenuation in realistic fractured media
P 8.11	Sprengel H., Ziegler M.	Analysis of surface roughness of Opalinus Clay extensional fractures
P 8.12	Orellana L.F., Violay M., Gramajo E., Henry P., Guglielmi Y., Amann F., Nusbaum C.	Petro-physical characterization of the Main Fault at the Mont Terri Laboratory
P 8.13	Kakurina M., Guglielmi Y., Nussbaum C., Valley B.	Architecture of a fault zone in Opalinus Clay at the Mont Terri laboratory (Switzerland)

P 8.14	Heap M., Violay M., Wadsworth F.	Porosity and permeability reduction in conduit wall rock. A transition from localised cataclastic pore collapse to distributed viscous flow.
P 8.15	Hartung E., Caricchi L.	The physical properties of evolved melts and implications for melt segregation and the built-up of large silicic eruptions
P 8.16	Antunes V., Lupi M., Carrier A., Obermann A., Mazzini A., Ricci T., Sciarra A., Moretti M.	Seismic signals at the Nirano Mud Volcanic Field, Italy
P 8.17	Haddad A., Lupi M., Gonzalez Vidal D., Ganas A., Kassaras I.	Tectonic and fluid-driven seismic activity in Western Peloponnese, Greece
P 8.18	Hetényi G., Le Roux- Mallouf R., Berthet T., Cattin R., Cauzzi C., Phuntsho K., Grolimund R.	Mind the (seismic) gap: the 1714 Bhutan earthquake
P 8.19	Tair S., Pitout F., Yahiat Y., Zaourar N.	Effect of tilt angle on the inter-hemispherical asymmetries: Study of the variations of the temperature and the electronic density
P 8.20	Colavitti L., Hetényi, G.	3-D shear-wave velocity model of the Central Alps using converted waves
P 8.21	Hadjadj A., Benaïssa Z., Benaïssa A., Boudella A.	Gray-scale Hough transform for seismic wavefield separation?
P 8.22	Schnydrig S., May D., Ueda K., Gerya T.	Topographic expressions of coupled surface process and 3Dtectonic models
P 8.23	Chanard K., Hetényi G., Baumgartner L., Licul A., Herman F.	Constraints on the extent and kinetics of eclogitization processes in the Indian lower crust
P 8.24	Incel S., Hilairet N., Labrousse L., John T., Deldicque D., Ferrand T., Wang Y., Renner J., Morales L., Schubnel A.	Laboratory earthquakes triggered during eclogitization of lawsonite bearing blueschist

Session 9: Subsurface Geology & Geo-Energy (tentative program)

Room R160

Convenors: Andrea Moscariello, Anneleen Foubert, Lyesse Laloui, Alex Hürlimann

Chairpersons: Andrea Moscariello, Anneleen Foubert, Lyesse Laloui, Alex Hürlimann

9:00-9:15	Le Cotonnec A., Ventra D., Moscariello A.	Incised valley fill reservoirs, from outcrop analogue to subsurface interpretations (Upper Carboniferous, Kentucky, USA)
9:15-9:30	Caudroit J., Fiammetta M., Rex I.	New insights of Eastern Niger Delta reservoir based on core sedimentology and seismic stratigraphy.
9:30-9:45	Leila M., Moscariello A.	Sedimentological and petrophysical characterizations of the Messinian sandstones, onshore Nile Delta, Egypt
9:45-10:00	Battaler F.J., McDougall N., Moscariello A.	Improved Late-Ordovician glacial reservoir prediction in North Africa using Spectral Decomposition on 3D Seismic data

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

Chairpersons: Andrea Moscariello, Anneleen Foubert, Lyesse Laloui, Alex Hürlimann

11:00-11:15	Do Couto D., Moscariello A., Bou Daher S., Littke R., Weniger P.	Unconventional petroleum resources in the Geneva basin: myth or reality?
11:15-11:30	Makhnenko R., Mylnikov D., Vilarrasa V., Laloui L.	Thermo-hydro-mechanical aspects of caprock – CO ₂ interaction for safe geological storage
11:30-11:45	Mondino F.	Surface structural analysis and relevance for the subsurface characterization of tight reservoirs (carbonate and clastics).
11:45-12:00	Carrier A., Lupi M., Clerc N., Russillon E., Do Couto D., Moscariello A., Meyer M.	Inferring lateral depth variations of Tertiary formations within the Great Geneva Basin, western Switzerland.

12:00-14:00 Lunch

Chairpersons: Andrea Moscariello, Anneleen Foubert, Lyesse Laloui, Alex Hürlimann

14:00-14:15	Ejderyan O.	Development and governance of deep geothermal energy. Insights from the social sciences
14:15-14:30	Carvalho I., Erkman S.	Designing new business models for the geo-energy project
14:30-14:45	Wanner C., Alt-Epping P., Diamond L.W.	Thermal evolution of the Grimsel Pass hydrothermal system: insights from numerical modeling
14:45-15:00	Zia H., Lecampion B.	Implicit level set scheme to model the propagation of planar 3D hydraulic fractures
15:00-16:00	Afternoon Poster Session with coffee	

Chairpersons: Andrea Moscariello, Anneleen Foubert, Lyesse Laloui, Alex Hürlimann

16:00-16:15	Perego R., Pera S., Belliard M.	Multi-parameter low enthalpy geothermal mapping of Cantone Ticino
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Posters Session 9:

P 9.1	Alt-Epping P., Diamond L.W.	Numerical simulation of CO ₂ injection into the U. Muschelkalk aquifer: implications of fluid–rock reactions in the aquifer and at the contact to an overlying clay formation
P 9.2	Antunes V., Lupi M., Moscariello A., Meyer M., de Bono C.N., François M.	Searching for microseismic activity in the Great Geneva Basin
P 9.3	Aschwanden L., Adams A., Diamond L.W., Mazurek M.	Anhydrite-dissolution porosity in the Upper Muschelkalk aquifer, NE-Switzerland: implications for geo-energy and geological storage of gas
P 9.4	Brixel B., Jalali M., Klepikova M., Amann F., Loew S.	Hydraulic metrics & fingerprints: Development of sound test procedures & analytical framework to evaluate permeability enhancement
P 9.5	Clerc N., Rusillon E., Cardello L., Moscariello A., Renard P.	Structural modeling of the Geneva Basin for geothermal ressource assessment

P 9.6	Dahrabou A., Valley B., Ladner F., Guinot F., Meier P.	Optimisation of borehole trajectory in order to minimize borehole failure
P 9.7	De Boever E., Foubert A., Oligschläger D., Claes S., Soete J., Bertier P., Özkul M., Virgone A., Swennen R.	Combined μ -CT – NMR approach to (micro)porosity quantification in continental spring carbonates
P 9.8	Egli D., Baumann R., Küng S., Berger A., Baron L., Herwegh M.	Fracture-controlled flow paths in an active hydrothermal system (Grimsel, Swiss Alps)
P 9.9	Gaehwiler M., Preisig G., Volken S., Möri A.	GeoQuat project: From harmonization of unconsolidated rock data to 3D geological and parametric modelling
P 9.10	Guglielmetti L., Moscariello A., Meyer M., de Bono C.N., Maurer H. & Dupuy D.	Geophysical characterisation of Cretaceous formations for underground thermal energy storage in the Geneva Basin
P 9.11	Jalali M.R., Doetsch J., Gischig V., Krietsch H., Amann F.	Hydraulic Stimulation of Crystalline Rock – Grimsel Test Site
P 9.12	Jansen G., Miller S.A.	Slip induced stress transfer in the embedded discrete fracture method
P 9.13	Krietsch H., Doetsch J., Gischig V., Amann F.	Results from combined characterization based on geological mapping and geophysics: Grimsel Test Site
P 9.14	Makhloufi Y., Samankassou E., Rusillon E., Meyer M.	Dolomitization of the Upper Jurassic sediments in the Great Geneva Basin
P 9.15	Moukhtari F., Lecampion B.	The tip region of a hydraulic fracture driven by a power law fluid
P 9.16	Rusillon E., Moscariello A.	Reservoir rock typing of the Late Jurassic Reef Complex, Greater Geneva Basin, (Switzerland and France)
P 9.17	Sohrabi R., Jansen G., Miller S.A.	HULK – Simple and fast generation of structured hexahedral meshes for improved subsurface simulations

P 9.18	Weidmann Y., Signorelli S., Grüniger A.	Country-wide analysis of geothermal potential for railway switch point heaters
P 9.19	Rickenbacher M., Jalali M., Ziegler M.	Sensitivity analysis of hydraulic fracture propagation
P 9.20	Leila M., Moscariello A.	Organic geochemistry of oil and natural gas in the West Dikiris and El-Tamad fields, onshore Nile Delta, Egypt: Generation by Upper Cretaceous — Lower Tertiary terrigenous source rocks
P 9.21	Ejderyan O., Stauffer M.	Social discourses on deep geothermal energy

Session 10: Open Session in Geomorphology

Room M1170

Convenors: C. Lambiel, C. Graf, I. Gärtner-Roer, N. Kuhn, R. Delaloye, M. Keiler, C. Scapozza, C. Levy, S. Castelltort, I. Regolini-Bissig, I. Kull

Landscape evolution, hydrology and hazards

Chairperson: Nikolaus Kuhn

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| 9:00-9:15 | King G., Grujic D.,
Coutand I., Herman F. | Very low temperature OSL-thermochronometry applied to the Siwalik deposits in Nepal and Bhutan |
| 9:15-9:30 | Valla P.G., Lajeunesse E.,
Delunel R., Allemand P. | Coupling and feedbacks between orographic precipitations and landscape evolution: Basse Terre Island, Guadeloupe archipelago (Lesser Antilles Arc) |
| 9:30-9:45 | Ramirez J.A., Zischg A.P.,
Schürmann S.,
Zimmermann M.,
Weingartner R., Keiler M. | Modelling geomorphic responses to human impacts and extreme floods: Application to the Kander river, Switzerland |
| 9:45-10:00 | Walter F., Burtin A.,
McArdell B., Hovius N.,
Weder B., Turowski J. | Rapid detection and location of debris flow initiation at Illgraben, Switzerland |

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

Sediment flux, permafrost and hazard

Chairperson: Christophe Lambiel

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| 11:00-11:15 | Delaney I.A.,
Weidmann Y., Huss M.,
Bauder A. | A sediment flux time series from a proglacial area: insights into sediment dynamics of glaciated catchments |
| 11:15-11:30 | Kummert M., Delaloye R. | Erosion and sediment transfer at the front of rapidly moving rock glaciers |
| 11:30-11:45 | Bardou E., Favre-Bulle G.,
Ornstein P., Pache B.,
Délèze J.-Y., Mayoraz R. | A decision support tool to help prevent risks induced by permafrost degradation in high alpine environments |
| 11:45-12:00 | Fehlmann M.,
Trappmann D., Moos C.,
Dorren L., Stoffel M.,
Bründl M., Huggel C. | Dynamics of rockfall hazards and risks from past to future: a case study in Täsch (VS), Switzerland |

12:00-14:00 Lunch

Chairperson: Christoph Graf

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| 12:30-13:30 | General Assembly of the Swiss Geomorphological Society SGS |
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Posters Session 10:

P 10.1	Larsen, A., Capponi, M., Lane, S.N.	The hydro-geomorphic influence of beaver (<i>Castor fiber</i>) on Swiss low-order streams – first results
P 10.2	Rieder M., Zimmermann M., Fuchs S., Keiler M.	Sediment yield estimation on a catchment scale in data-scare regions – Rasht valley Tajikistan
P 10.3	Schmutz D., Zimmermann M., Keiler M.	Assessment of sediment connectivity index in relation with hazardous events in alpine torrent catchments in Switzerland
P 10.4	Chow C., Ramirez J.A., Zimmermann M., Barkwith A., Keiler M.	Debris flow modelling: How much model complexity is needed?
P 10.5	de Palézieux L., Leith K., Loew S.	Reconnaissance study of landslide distribution with respect to erosional processes in northwestern Bhutan
P 10.6	Meyrat R., Rüttimann S., Lane S.N., Lambiel C.	Using UAV for studying the dynamics of an active rock glacier
P 10.7	Giaccone E., Mariethoz G., Lambiel C.	Interactions between geomorphology and vegetation in the Vaud Alps: first investigations
P 10.8	Krenz J., Greenwood P., Kuhn B., Heckrath G., Foster I., Boardman J., Meadows M., Kuhn N.	In-filled reservoirs serving as sediment archives to analyse soil organic carbon erosion – Taking a closer look at the Karoo rangelands
P 10.9	Vögtli M., Kuhn N.J., Franz L., de Capitani C., Koziol M.	Optical and geochemical analysis of the tephra layers from the Hinkelsmaar (Eifel region, Western Germany)
P 10.10	Malatesta L.C., Lamb M.P.	Generation of waterfalls at intermittently alluviated fault scarps releases tectonic forcing on a climatic beat
P 10.11	Reber R., Litty C., Madella A., Delunel R., Akçar N., Christl M., Schlunegger F.	Environmental control on erosion along the entire western margin of Peru

Session 11: Quaternary environments: landscapes, climate, ecosystems, human activity during the past 2.6 million years

Room R080

Convenors: Irka Hajdas, Christine Pümpin, Susan Ivy Ochs, Naki Akçar, Gaudenz Deplazes, Jean Nicolas Haas, Stéphanie Girardclos

Chairpersons: Irka Hajdas, Susan Ivy-Ochs

9:00-9:15	Silva, T.A., Girardclos, S., Vogel, H., Loizeau, J.L.	Geochemical dataset of the Rhone River delta (Lake Geneva) sediments – disentangling human impacts from climate change
9:15-9:30	Abbott P., Davies S., Griggs A., Bourne A.	TRACEing Last Glacial Period (25-80 ka b2k) tephra horizons within North Atlantic marine cores
9:30-9:45	Mozafari Amiri N., Tikhomirov D., Özkaymak Ç., Sümer Ö., Uzel B., Ivy-Ochs S., Vockenhuber Ch., Sözbilir H., Akçar N.	Holocene seismic activity of the Yavansu fault, western Turkey
9:45-10:00	Wüthrich, L., Hepp, J., Bromm, T., Benesch, M., Bliedtner, M., Schäfer, I.K., Zech, J., Glaser, B., Rozanski, K., Sirocko, F., Zech, R., Zech, M.	A relative humidity record for the Late Glacial to Holocene transition from the Gemündener Maar, Germany
10:00-11:00	Morning Poster Session with coffee	

Chairpersons: Gaudenz Deplazes, Christine Pümpin

11:00-11:15	Claude A., Akçar N., Ivy-Ochs S., Schlunegger F., Kubik P.W., Christl M., Vockenhuber C., Dehnert A., Kuhlemann J., Meinert R., Schlüchter C.	Landscape evolution of the northern Alpine Foreland: constructing a temporal framework for early to middle Pleistocene glaciations
11:15-11:30	Dubois N., Jacob J.	Molecular biomarkers of anthropic impacts in natural archives

11:30-11:45	Diaz N., Dietrich F., Sebag D., King G.E., Valla P.G., Deschamps P., Herman F., Verrecchia E.P.	Evolution of a Sudano-Sahelian paleoenvironment since the late MIS-2 (Far N Cameroon, Chad Basin)
11:45-12:00	Schwörer C., Gavin D., Walker I., Hu F.S.	Holocene treeline changes in the Canadian Cordillera are controlled by climate and local topography

12:00-14:00 Lunch

Chairpersons: Naki Akçar, Stéphanie Girardclos

14:00-14:15	Haas M., Baumann F., Reusch A., Strasser M., Eglinton T.I., Dubois N.	Historical evolution of human land-use in the catchment of Lake Murten
14:15-14:30	Boxleitner M., Maisch M., Brandova D., Egli M., Ivy Ochs S., Christl M.	Surface exposure dating of Lateglacial and Holocene glacier extents in the Canton of Uri, Switzerland
14:30-14:45	Morlock M., Vogel H., Nigg V., Hasberg A., Melles M., Russell J.M., Bijaksana S. & the TDP science team	Geochemical characterisation of Lake Towuti, Indonesia: setting the stage for climate reconstructions over several glacial-interglacial cycles
14:45-15:00	Normand R., Simpson G., Bahroudi A.	Tectonic geomorphology of the western Makran subduction zone: Evidence of past megathrust earthquakes?

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

Chairpersons: Jean-Nicolas Haas, Irka Hajdas

16.00-16.15	Spangenberg J.E., Vogiatzaki M., Zufferey V.	Effects of climate change on Swiss wine – a VOCs and multi-isotope study
16.15-16.30	Lehmann B., Valla P.G., King G.E., Ivy-Ochs S., Christl M., Herman F.	Reconstruction of glacier fluctuations in the Mont- Blanc massif, western Alps: a multi-method approach
16.30-16.45	Dietrich F., Diaz N., Deschamps P., Sebag D., Verrecchia E.P.	Tracking the calcium over the last 20ky: the meaning of calcitic pedogenic nodules in a silicate watershed (northern Cameroon)
16.45-17.00	Gordijn T., Hippe K., Hajdas I., Ivy-Ochs S., Picotti V., Christl M.	Characterization of sediment storage with cosmogenic nuclides, a study of a fluvial catchment on the Bolivian Altiplano

Posters Session 11:

P 11.1	Anspach J., Lupker M., Haghipour N., Eglinton T.	Biomarker Signature of Greenland Sediments: from modern Rivers and Soils to MIS 5e and 11 Records
P 11.2	Bliedtner M., Suchodoletz H. v., Schäfer I.K., Zech J., Zielhofer C., Zech R.	Leaf waxes and compound-specific δD analyses in a Holocene fluvial sediment-paleosol sequence from the upper Alazani River, SE-Georgia
P 11.3	Braakhekke J., Ivy-Ochs S., Hajdas I., Monegato G., Gianotti F., Christl M.	The Last Glacial Maximum around Lago d'Orta, Northern Italy; a multi method reconstruction
P 11.4	Eggenschwiler L., Picotti V., Cherubini P., Hajdas I., Saurer M., Via G.B., Marabini S.	Using Stratigraphy and Dendrochronology near Tebano, Senio Northern Apennines to Analyze the Impact of Climatic Fluctuation at Certain Frequencies
P 11.5	Eymard I., Alvarez M.d.P., Bilmes A., Dobra M.G., Suarez F., Vasconcelos C., Ariztegui D.	Stromatolites growth in a freshwater environment from Northeastern Patagonia (Argentina)
P 11.6	Hajdas I., Maurer M., Röttig M.B., Chevrier B., Martinez M.L., Loukou S., Mayor A., Pollarol L., Rasse M., Garnier A., Lespez L., Tribolo C., Lebrun B., Camara A., Bocoum H., Huysecom E.	Radiocarbon Chronology of Human Settlement and paleo environment in Senegal, West Africa
P 11.7	Ivy-Ochs S., Wirsig C., Zasadni J., Hippe K., Christl M., Akçar N., Schluechter C.	Into and out of the Last Glacial Maximum in the Alps
P 11.8	Jiménez-Morillo N.T., Spangenberg J.E., González-Pérez J.A., Jordán A., Zavala L.M., González-Vila F.J.	Wildfire effects on lipid composition and hydrophobicity in bulk soil and soil size fractions
P 11.9	Kronig O., Reitner J.M., Christl M., Ivy-Ochs S.	Dating the stabilisation age of relict rockglaciers

P 11.10	LeKieffre C., Spangenberg J.E., Mabilleau G., Meibom A., Geslin E.	A benthic foraminifera species respond to anoxia with a strong metabolic shift suggesting a state of dormancy
P 11.11	Marchegiano M., Horne D., Gliozzi E., Francke A., Ariztegui D.	Application of the Mutual Ostracod Temperature Range method (MOTR) to a sediment core from Lake Trasimeno (Umbria, central Italy)
P 11.12	Moretti S., Jaccard S., Montluçon D., Martínez- García A., Eglinton I.T.	Iron fertilization in the Subantarctic Indian Ocean during the last glacial cycle and the drawdown of atmospheric CO ₂
P 11.13	Neugebauer I., Plessen B., Dinies M., Engel M., Tjallingii R., Brauer A.	Centennial-scale variability of the Early Holocene Humid Period in NW Arabia inferred from high-resolution geochemistry and microfacies of the Tayma palaeolake
P 11.14	Opyrchal E., Zasadni J., Klapyta P., Christl M., Ivy- Ochs S.	Lateglacial deglaciation of the High Tatra Mountains
P 11.15	Patra S., Akçar N., Ivy- Ochs S., Monegato G.	Tracking the pace of Middle Pleistocene Revolution in the southern Alpine Foreland
P 11.16	Saracoğlu D., Hajdas I., Maurer M., Röttig M.B., Ivy-Ochs S., Synal H.A.	Re-visiting radiocarbon ages of Oetzi the Ice Man
P 11.17	Schäfer I.K., Bliedtner M., Wüthrich L., Wolf D., Zech J., Faust D., Zech R.	Leaf waxes and compound-specific isotopes indicate more humid conditions in Spain during the LGM
P 11.18	Spangenberg J.E.	Multiple stable isotope analysis of vegetable oils from the southern and northern hemispheres: increasing an archaeological/paleoclimatic database
P 11.19	Fabbri S.C., Weiss B.J., Hübscher C., Horstmeyer H., Schmelzbach C., Buechi M.W., Herwegh M., Schlunegger F., Anselmetti F.S.	Subaquatic moraine amphitheatre in Lake Thun

P 11.20	Struck J., Sparrenberg S.F., Kühn P., Schneider R., Thiele-Bruhn S., Zech J., Zech R., Zander A., Weidenfeller M.	Multiproxy Analysis and Pedosedimentary Reconstruction of Loess-Paleosol Sequences on two Pleistocene Fluvial Terraces of the Mosel
P 11.21	Strupler M., Hilbe M., Flavio S. Anselmetti, Fleischmann T., Kopf A.J., Strasser M.	Probabilistic stability evaluation and seismic triggering scenarios of submerged slopes in perialpine Lake Zurich
P 11.22	Yeşilyurt S., Doğan U., Akçar N., Yavuz V., Ivy- Ochs S., Vockenhuber C., Schlunegger F., Schlüchter C.	Late Quaternary Glaciations of Kavuşşahap Mountains

Session 12: Cryospheric Sciences

Room M1160

Convenors: **Margrit Schwikowski, Martin Heggli, Matthias Huss, Jeanette Nötzli, Daniel Tobler**

Chairperson: Martin Hoelzle

09:00-09:15	Brauchli T., Trujillo E., Huwald H., Lehning M.	Snowmelt observations at the slope scale and implications for the catchment response using the Alpine3D model
09:15-09:30	Calonne N., Cetti C., Fierz C., van Herwijnen A., Jaggi M., Löwe H., Matzl M., Schmid L., Schneebeli M.	A unique time series of daily and weekly snowpack measurements at Weissfluhjoch, Davos, Switzerland
09:30-09:45	Lucas C., Bühler Y., Leinss S., Marino A., Hajsek I.	Interfering reflections in ground based radar measurements: Lessons learnt from a snow depth measurement campaign
09:45-10:00	Steiner L., Baumann M., Geiger A.	Point-wise estimation of glacier surface height changes based on reflected GPS signals

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

Chairperson: Horst Machguth

11:00-11:15	Lindner F., Walter F., Laske G.	Seismic monitoring of the 2016 outburst flood of Lac des Faverges on Glacier de la Plaine Morte
11:15-11:30	Irrazaval I., Mariethoz G., Herman F.	Geostatistical inversion of subglacial drainage system
11:30-11:45	Zekollari H., Huybrechts P., Noël B., van de Berg W.J., van den Broeke M.R.	Dynamics and climate sensitivity of Hans Tausen Iskappe (Greenland)
11:45-12:00	Visnjevic V., Herman F., Podladchikov Y.	Glacier climate interaction: reconstruction of the mass balance field using ice extent data

12:00-13:30 Lunch

Chairperson: Matthias Huss

13:30-14:00	Leinss S.	Keynote: The Aru Co Twin-Avalanche (Tibet)
14:00-14:15	Ghirlanda A., Delaloye R., Kummert M., Staub B., Brailard L.	Destabilization of the Jegi rock glacier: historical development and ongoing crisis
14:15-14:30	Frehner M., Amschwand D., Gärtner-Roer I.	Rockglacier flow law determined from deformation data and geomorphological indicators: An example from the Murtèl rockglacier (Engadin, SE Switzerland)
14:30-14:45	Buri P., Steiner J.F., Miles E.S., Pellicciotti F.	Modelling backwasting of supraglacial ice cliffs over a debris-covered glacier, Nepalese Himalaya
14:45-15:00	Naegeli K., Damm A., Huss M., Wulf H., Schapman M., Hoezle M.	Glacier surface albedo derived from remotely sensed data and its importance for mass balance modelling
15:00-16:00	Afternoon Poster Session with coffee	

Chairperson: Margrit Schwikowski

16:00-16:15	Seguinot J., Funk M., Jouvet G., Ryser C., Bauder A., Leinss S., Sakakibara D., Sugiyama S.	Tidewater glacier dynamics dominated by sliding at Bowdoin Glacier, Northwest Greenland
16:15-16:30	Jouvet G., Weidmann Y., Seguinot J., Funk M., Abe T., Sakakibara D., Sugiyama S.	Initiation of a major calving event on Bowdoin Glacier captured by UAV photogrammetry
16:30-16:45	Machguth H., Colgan W.	Conventional and radioactive waste at the abandoned ice sheet base at Camp Century, Greenland, in a warming climate
16:45-17:00	SEP Young Scientist Award Ceremony	

Posters Session 12:

P12.1	Avak S.E., Birrer M., Guillong M., Bartels- Rausch T., Schwikowski M., Eichler A.	Development of a Cryocell LA-ICP-MS Setup for Spatial Trace Element Analysis in High Alpine Glacier Ice
P12.2	Dal Farra A., Kaspari S., Schwikowski M.	Effects of particulate matter on the albedo of Alpine glaciers
P12.3	Brugger S.O., Gobet E., Sigl M., Osmont D., Schwikowski M., Tinner W.	FROZENFIRE – 5000 years of fire, vegetation and pollution history from the Mongolian Altai
P12.4	Brugger S.O., Gobet E., Sigl M., Osmont D., Schwikowski M., Tinner W.	FROZENFIRE – A high-alpine ice core record to assess vegetation and fire dynamics in Western Europe over the last millennium
P12.5	Osmont D., Sigl M., Wendl I., Schmidely L., Isaksson E., Grieman M., Schwikowski M.	Towards the reconstruction of forest fires through chemical analysis of black carbon in ice cores from mountain glaciers
P12.6	Tetzner D., Fernandoy F., Meyer H.	Stable water isotopes as climate tracers in the Laclavere Plateau, Antarctic Peninsula
P12.7	Barandun M., Huss M., Usabaliyev R., Bolch T., Hoelzle M.	From snow cover mapping to glacier-wide mass balance on Central Asian glaciers
P12.8	Huber J., Zemp M., Paul F., Cook A.J.	A complete glacier inventory of the Antarctic Peninsula based on Landsat7 data from 2000–2002 and other pre-existing datasets
P12.9	Goerlich F., Bolch T., Mukherjee K., Pieczonka T.	Negative geodetic glacier mass balances in the Ak-Shirak range (Kyrgyzstan) between 1960s and 70s derived from Corona and Hexagon reconnaissance imagery
P12.10	Mölg N., Steinmann M., Zemp M.	A worldwide glacier information system to go
P12.11	Mölg, N., Bolch, T., Vieli, A.	Traditional photogrammetry versus modern structure- from-motion: using aerial images to derive surface elevation changes of a debris covered Alpine glacier tongue

P12.12	Vivero S., MacDonell S., Mernild S.	Ice-elevation changes derived by high resolution airborne and terrestrial laser scanning data of a high Andean glacier
P12.13	Weidmann Y., Huss M., Fischer M., Schmassmann E.	Swiss Glacier Inventory 3D, a product of the Swiss topographical landscape model
P12.14	Seguinot J., Juvet G., Huss M., Funk M.	Modelling the last glacial cycle in the Alps
P12.15	Cohen D., Zwinger Th., Fischer U.H., Haeberli W.	Modeling glaciers and permafrost in connection with radioactive waste repositories in northern Switzerland
P12.16	Becker P., Funk M.	Modeling the ice flow in the Upper Valais at the Last Glacial Maximum
P12.17	Werder M.A., Huss M.	Bayesian inference of ice thickness
P12.18	Förster S., Huss M., Gudmundsson H.	Demystifying the end of the Little Ice Age: first tests simulating the Rhône Glacier with Ua
P12.19	Sommer C.G., Lehning M., Fierz C.	A new ring-shaped wind tunnel facility to study wind- packing of snow
P12.20	Capelli A., Reiweger I., Schweizer J.	Studying the acoustic emissions and the failure process during loading experiments of snow
P12.21	Gaume J., Löwe H.	The contact density to characterize the mechanical behavior of very loose cohesive granular materials : towards snow microstructure modeling
P12.22	Bavay M., Fierz C., Egger T., Lehning M.	The Open Source Snowpack modelling ecosystem
P12.23	Couttet M., Wever N., Bavay M., Fierz C., Lehning M.	Modelling water vapour transport in snow
P12.24	Schlögl S., Mott R., Lehning M.	Energy balance and melt over a patchy snow cover
P12.25	Preiswerk L.E., Walter F., Meier L., Funk M.	Icelfalls from the Eiger West Face Monitored by Interferometric Radar and Seismometers
P12.26	Steiner J.F., Buri P., Miles E.S., Epp M.	Rapid growth of a terminal lake in the Glarner Alpen

Session 13: Hydrology, Limnology and Hydrogeology

Room S150

Convenors: Pascal Blanc, Olivier Overney, Massimiliano Zappa,
Michael Doering, Michael Sinreich

Chairperson: Olivier Overney

9:00-9:20	Luca Rossi	Keynote: Integrated water management approaches – new paradigms
9:20-9:35	Schirmer M., Musolf A., Radny D.	Mass Flux of Micropollutants in Cities – Challenges in Urban Hydrogeology
9:35-9:50	Ammann L., Fenicia F., Doppler T., Reichert P., Stamm C.	Modelling the dynamics of in-stream herbicide concentrations: evaluation of a controlled herbicide application experiment in a headwater catchment
9:50-10:05	Iorgulescu I., Nirel P., Higy C.	Linking hydrological and hydrochemical trends in the Arve River streamflow during the past decades

10:05-10:45 Morning Poster Session with coffee

Chairperson: Michael Sinreich

10:45-11:05	Peter Huggenberger	Keynote: Challenges of groundwater management and protection in urban areas – Examples from the Basel area
11:05-11:20	Staudinger M., Carlier C., Cochand F., Seibert J., Brunner P.	Groundwater and low flows in Switzerland – Efforts to consider the spatial component of groundwater surface water exchange in a bucket-type hydrological model
11:20-11:35	Carlier C., Wirth S., Cochand F., Staudinger M., Seibert J., Hunkeler D., Brunner P.	Groundwater and low flows in Switzerland – Assessment of water resources vulnerability to droughts using synthetic hydrogeological models
11:35-11:50	Gmünder C., Nusch S., Zimmermann S.	Use of Isotope data to quantify the interaction between the river Rhine and the groundwater at Oberriet, CH
11:50-12:05	Gerber C., Purtschert R., Hunkeler D., Sültenfuss J., Hug R.	Time lag of trend reversal after nitrate reduction measures determined by tracer measurements in the Dünnergäu, Solothurn

12:05-12:45 Lunch

12:45-13:45	Chairperson: Beat Oertli	General Assembly of the Swiss Society for Hydrology and Limnology SGHL.
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13:45-14:15	Chairperson: Reinhard Bachofen	Hydrobiology-Limnology Award.
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Chairperson: Massimiliano Zappa

14.15-14:35	João P. Leitão	Keynote: New data sources as new opportunities for urban flood modelling
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14:35-14:50	Seibert J., Strobl B., Etter S., Vis M., van Meerveld I.	Citizen science in hydrology: stream level observations and their potential value for constraining runoff models
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14:50-15:05	Răman Vinnă L., Wüest A., Bouffard D.	Impact of nuclear produced thermal pollution on a lake with short residence time – what can models resolve?
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15:05-15:20	Cotte G., Vennemann T.	Tracing of Rhône River water in Lake Geneva using stable isotope composition of water
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15:20-15:35	El Kateb A., Stalder C., Neururer C., Rüggeberg, A., Spezzaferri S.	Lake Murten: Implication of high-resolution water parameter survey on lake functioning
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15:35-16:10 Afternoon Poster Session with coffee

Chairperson: Michael Döring

16:10-16:30	Joshua Larsen	Keynote: Streamflow responses to CO ₂ – vegetation feedbacks in addition to other climatic changes
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16:30-16:45	Costa A., Stutenbecker L., Silva T.A.A., Bakker M., Molnar P., Schlunegger F., Girardclos S., Loizeau J.-L., Lane S.N.	Temperature signal in fine sediment dynamics of the Upper Rhône basin
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16:45-17:00	Farinotti D., Pistocchi A., Huss M.	Dwindling water resources from glacierized catchments: Is mitigation possible?
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Posters Session 13:

P 13.1	Cimatoribus A., Leemin U., Barry D.A.	Transport and mixing in Lac Léman
P 13.2	Colombo L.	Monitoring of alpine lakes: approach and results from Canton Ticino
P 13.3	Fluixá-Sanmartín J., García Hernández J., Alesina S.	Trend of drought conditions based on meteorological index detection in the Upper Rhone River Basin, Valais, Switzerland
P 13.4	Gies H., Wick S., Lupker M., Freymond C., Peterse F., Hagipour N., Eglinton T.	Riverine export of organic carbon during extreme precipitation events
P 13.5	Goyette S.	Numerical investigation with a coupled single-column lake-atmosphere model: An application to Western Switzerland
P 13.6	Moeck C., Van Freyberg J., Schirmer M.	The effects of model complexity and calibration period on groundwater recharge predictions
P 13.7	Nasri S., Hakdaoui M., Baghdad B.	Dynamism of spatial planning to improve management of urban expansions and the effect of water resources of Meknes city. Contribution of multisource spatial imagery
P 13.8	Andres N., Kuhlman M., Zuend B., Federer M., Zappa M.	Hydrological-hydraulic modelling of the Lake of Zürich for future flood protection
P 13.9	Pavia Santolamazza D., Lebrez H.	Assessment of recent flood events at Muttenz, Switzerland
P 13.10	Preisig G., Volken S., Gaehwiler M., Möri A., Sinreich M.	GeoQuat project: realization of groundwater volumes and vulnerability maps based on 3D parametric modeling
P 13.11	Thomas C., Lyautey E., Ariztegui D., Dubois N., Frossard V., Pasche N., Perga M.-E., and the Life Under the Ice Scientific Team	Life under the ice: microbial diversity and methane cycling in the sediment of the ice-covered Lake Onego, Russia

P 13.12	Thornton J.M., Mariethoz G., Brunner P.	3D geological modelling as a basis for hydrogeological investigations in complex mountain terrain
P 13.13	Travaglini E., Ornstein P., Moerschel J., Scheider T.	SismoRiv : Estimation du charriage en rivière à l'aide d'une mesure du bruit sismique présent dans les berges
P 13.14	Wirth S.B., Reusch A., Bouffard D., Anselmetti F.S., Strasser M.	Pockmarks in Lake Neuchâtel
P 13.15	Benoit L., Mariethoz G.	Rainfall structure observed by a dense network of high resolution rain gauges
P 13.16	Beria H., Daqing Yang, Yanping Li	In a warming climate, why do we see decreasing heat influx from Russian rivers in the Arctic Ocean?
P 13.17	Cochand F., Carlier C., Staudinger M., Seibert J., Hunkeler D., Brunner P.	Groundwater and low flows in Switzerland – Comparative physically based modelling of two Swiss catchments for assessing their low flow dynamics
P 13.18	Consoli G., Bruder A., Lepori F., Robinson C.T.	Quantifying and predicting the effects of water abstraction on macroinvertebrate fauna and ecosystem function in alpine streams
P 13.19	Iorgulescu I.	Differences in the present hydrological regime of two Jurassic catchments with respect to the early XXth Century
P 13.20	Jimenez-Martinez, J	Solute mixing and chemical reactions in multiphase systems: from pore- to field-scale
P 13.21	Metzger R.	The Surface Runoff diagnostic model for the Canton of Geneva
P 13.22	Rusconi R., Secchi E., Willmann M., Stocker R.	Bacterial transport in saturated porous media
P 13.23	Saletti M., Molnar P.	A multi-grain reduced-complexity model for step formation and stability in steep streams

Session 14: Environmental Biogeochemistry of Trace Elements

Room R060

Convenors: Andreas Voegelin, Lenny Winkel

Chairpersons: Andreas Voegelin, Lenny Winkel

09:00-09:15	Bigalke M., Schwab L., Kusonwiriya Wong C., Imseng M., Rehms A., Ulrich A., Tondo P., Flisch M., Wiggerhauser M., Frossard E., Keller A., Müller M., Wilcke W.	Fate of fertilizer-derived U in Swiss agricultural soils
09:15-09:30	Wick, S., Baeyens, B., Voegelin, A.	Thallium sorption on illite and its importance in soils
09:30-10:00	Sarret G., Aucour A.-M., Queyron M., Thol�� R., Lamboux A., Testemale D., Magnin V., Bedell J.-P.	KEYNOTE: Dynamics of Zn in urban wetland soil-plant systems: coupling EXAFS and isotopic approaches

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

Chairpersons: Andreas Voegelin, Lenny Winkel

11:00-11:15	Mestrot A., Grob M., Wilcke W.	Antimony release and biomethylation in shooting range soils under flooded conditions
11:15-11:30	Wiggerhauser M., Wilcke W., Bigalke M., Imseng M., M��ller M., Archer C., Frossard E.	Zinc isotope fractionation during translocation in wheat
11:30-11:45	Jiskra M., Sonke J., Obri��t D., Agnan Y., Hedge C., Moore C., Colgrove D., Huber J., Helmig D.	Vegetation uptake drives the deposition of gaseous elemental mercury to Arctic tundra soils – Insights from stable mercury isotopes
11:45-12:00	Jones G.D., Winkel L.H.E.	Climate-soil interactions drive trace element concentrations in topsoils

12:00-14:00 Lunch

Chairpersons: Lenny Winkel, Andreas Voegelin

14:00-14:15	Aeppli M., Brown A.R., Voegelin A., Hofstetter T.B., Sander M..	Reduction dynamics of iron(oxyhydr)oxides as assessed by mediated electrochemical analysis
14:15-14:30	Biswakarma J., Kang K., Schenkeveld W.D.C., Borowski S.C., Kraemer S.M., Hering J.G., Hug S.J.	Fe(II)-catalyzed ligand-controlled dissolution of iron (hydr)oxides
14:30-14:45	van Genuchten C.M., Pena J.	Mn(II) oxidation coupled to Fe(II) oxidation in Fenton- type reactions
14:45-15:00	Marafatto F.F., Gilbert B., Peña J.	Irradiation of Ni-laden birnessite results in pH dependent Ni release.

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

Chairpersons: Lenny Winkel, Andreas Voegelin

16:00-16:15	Wang Y., Benkaddour S., Marafatto F., Peña J.	Time-Resolved characterization of Co(II) Oxidation by δ -MnO ₂ using quick X-ray absorption spectroscopy
16:15-16:30	Müller E., Von Gunten U., Winkel L.	Reactions between marine bromine and organic sulfur species
16:30-16:45	ThomasArrigo L., Mikutta C., Lohmayer R., Planer-Friedrich B., Kretzschmar R.	Arsenic Cycling in Iron-rich Organic Freshwater Floccs
16:45-17:00	de Meyer C., Rodriguez J., Garcia P., Carpio E., Wahnfried I., Matheus J., Stengel C., Berg M.	Geogenic trace elements in groundwater resources of the Amazon region

Posters Session 14:

P 14.1	Beauvais-Flück R., Regier N., Slaveykova V. I., Cosio C.	<i>Elodea nuttallii</i> exposure to mercury in natural water under enhanced ultraviolet radiation
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P 14.2	Benkaddour S., Sander M., Marafatto F. F., Peña J.	Redox properties of manganese oxide minerals (birnessite)
P 14.3	Hassler C., Vance D., Moisset S., Pascal L., Ellwood M.	Trace metal and iron isotope cycling in the meromictic Lake Cadagno
P 14.4	Gogos A., Thalmann B., Voegelin A., Kaegi R.	Sulfidation kinetics of copper oxide nanoparticles
P 14.5	Gonzalez Holguera J., Dossou Etui I., Peña J.	Pb, Zn and Mn sorption on biogenic MnO ₂ : linking sorption affinity to reactive surface sites
P 14.6	Liu Y., Schäffer A., Lenz M.	Selenium Methylation by a Pseudomonas Species and its Transcriptomic Responses to Se Oxyanions Exposure
P 14.7	Loreggian L., Roebbert Y., Neubert N., Weyer S., Bernier Latmani R.	Uranium isotope fractionation during abiotic reduction by magnetite
P 14.8	Penezic A., Tercier-Waeber, M.-L., Bakker E.	Voltammetric detection of As(V) in natural waters
P 14.9	Senn A.-C., Kaegi R., Hug S. J., Hering J. G., Voegelin A.	Composition, structure and arsenate sequestration of iron oxidation products
P 14.10	Viacava K., Lederballe Meibom K., Mestrot A., Bernier-Latmani R.	Arsenic biomethylation efficiency across microbial phyla

Session 15: Linking Trace Element and Carbon Biogeochemistry

Room R070

Convenors: Vera Slaveykova, Séverine Le Faucheur and
Christel S. Hassler

Chairpersons: Vera Slaveykova, Christel Hassler, Séverine Le Faucheur

09:00-09:30	Pinheiro J.P., Botero W.G., Janot N., Domingos R.F., Rocha L.S., Groenenberg J.E., Benedetti M.F.	Binding behavior of trace metals with fully purified and alkaline extracted soil humic acid
09:30-09:45	Bravo A.G., Ortega S.H., Bouchet S., Tolu J., Catalán N., Björn E., Bertilsson S.	Organic matter composition controls mercury methylation in aquatic ecosystems
09:45-10:00	Jiménez-Lamana J., Slaveykova V.I.	Silver nanoparticles fate in lake water depends on the natural organic matter origin

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

Chairpersons: Vera Slaveykova, Christel Hassler, Séverine Le Faucheur

11:00-11:15	Vance D., Little S., de Souza G.F.	Southern Ocean biology and physical oceanography the key control on global ocean trace metal distributions
11:15-11:30	Sieber M., Conway T.M., Takano S., Sohrin Y., Vance D.	The role of the Antarctic Ocean in influencing the distribution of Cd isotopes at lower latitudes in the South West Pacific
11:30-11:45	Jaccard S.L., Semeniuk D.M., Maldonado M.T.	Chromium uptake and adsorption in marine phytoplankton – Implications for the marine chromium cycle
11:45-12:00	Rotureau E., Présent R., Billard P., Pagnout C., Duval J.F.L	Kinetics and thermodynamics of metal partitioning at the cell-solution interface : impacts of intracellular speciation dynamics

12:00-14:00 Lunch

Posters Session 15:

P 15.1	Cabanes D.J.E., Norman L., Santos- Echeandía J., Iversen M.H., Trimborn S., Laglera L.M., Hassler C.S.	Salp fecal pellets interaction with iron biogeochemistry
P 15.2	de Souza G.F., Khawiwala S., Little S.H., Vance D.	Systematics of biogeochemical controls on the oceanic distribution of zinc
P 15.3	Krishnamoorthy D., Moisset S., Cabanes D., Hassler C.	Relevance of iron speciation with respect to the distribution of humics and phytoplankton in Lake Geneva
P 15.4	Mannerheim N., Blessing C., Oren I., Gruenzweig J., Buchmann N.	Short-term carbon allocation within the root system of the tropical tree species <i>Ceiba pentandra</i>
P 15.5	Tribovillard N., Petit A., Quijada M., Riboulleau A., Sans-Jofre P., Thomazo C., Birgel D.	Early-diagenesis carbonate precipitation: from nodules to cone-in-cone structures
P 15.6	Laffite A., Devarajan N., Mulaji C.K., Slaveykova V.I., Poté J.	High levels of toxic metals detected in sub-saharian rivers receiving hospital effluents: Case of Democratic Republic of Congo

Session 16: Trace elements in aquatic ecosystems: from legacy to emerging pollutants

Room R070

Convenors: Montserrat Filella, Jean-Luc Loizeau

12:00-14:00 Lunch

Chairpersons: Montserrat Filella, Jean-Luc Loizeau

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|-------------|--|---|
| 14:00-14:30 | Tercier-Waeber M.-L. | Keynote: In situ monitoring of trace metal speciation: needs, means and challenges |
| 14:30-14:45 | Wang Y., Le Pape P.,
Morin G., Suvorova E.,
Bártová B., Asta M. P.,
Fruttschi M., Ikogou M.,
Vu Pham C. H., Phu Le
Vo, Geraki T., Charlet L.,
Bernier-Latmani R. | A novel arsenic species in Mekong Delta sediments |
| 14:45-15:00 | Asta M.P., Wang Y., Le
Pape P., Fruttschi M.,
Vicava K., Phu Le Vo,
Fernandez A.M.,
Sánchez-Ledesma D.M.,
Morin G.,
Bernier-Latmani R. | Sulfur-bound species as a source of arsenic in
Vietnam Delta sediments |

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

Chairpersons: Jean-Luc Loizeau, Montserrat Filella:

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| 16:00-16:30 | Nirel P. | Keynote: 22 years of water quality survey for trace elements and? |
| 16:30-16:45 | Gascon Diez E., Graham
N.D., Loizeau J.-L. | Transport, distribution, and speciation of particulate mercury in Lake Geneva, Switzerland |
| 16:45-17:00 | Rodríguez-Murillo J.C.,
Nirel P., Filella M. | Are trace element concentrations increasing in Lake Geneva waters? |

Posters Session 16:

P 16.1	Ciszewski D.	Sulphates are intensively transformed to sulphides in the hyporheic zone of the polluted sandbed river
P 16.2	Gascon Diez E., Corella J.-P., Adatte T., Thevenon F., Loizeau J.-L.	The legacy of metal pollution related to industrial activities in a highly contaminated area of Lake Geneva (Switzerland)
P 16.3	Casado-Martinez M.C., Wild M., Ferrari B.I.D., Werner I.	A new module for the sediment compartment within the Modular Stepwise Procedure (MSK) for the assessment of water bodies in Switzerland: the ModSed project
P 16.4	Filella M., Voegelin A.	Network on technology-critical elements: from environmental processes to human health threats (COST action TD1407)

Session 17: Atmospheric Processes and Interactions with the Biosphere

Room R040

Convenors: Christof Ammann, Stefan Brönnimann, Lutz Merbold, Peter Waldner

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

Chairpersons: Christoph Ammann, Stefan Brönnimann, Peter Waldner

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|-------------|---|---|
| 11:00-11:15 | Ingensand J.,
Bullinger G.,
Composto S.,
Camponovo R.,
Spahni B.,
Froidevaux M.,
Nappez M., Varesano D. | The influence of ground surfaces on urban climate |
| 11:15-11:30 | Van der Voort T.S.,
Hagedorn F., Mannu U.,
McIntyre C., Walthert L.,
Schleppi P., Eglinton T.I. | Soil carbon dynamics and fluxes across a climatic gradient from temporally-resolved radiocarbon measurements |
| 11:30-11:45 | Emmel C., Eugster W.,
Hörtnagl L. | Carbon budgets of six different agricultural crops at the Oensingen arable land Fluxnet site |
| 11:45-12:00 | Revill A., Emmel C.,
D'Odorico P.,
Buchmann N.,
Eugster W. | Process-based crop model simulations of carbon fluxes and stocks – an evaluation at the Oensingen cropland site |

12:00-13:45 Lunch

Chairpersons: Christoph Ammann, Stefan Brönnimann, Peter Waldner

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| 13:45-14:15 | Eyer, S. | ACP Award Talk
Real-time analysis of ^{13}C - and dD-CH_4 ambient air with
lased spectrometry Method development validation
and applications |
| 14:15-14:30 | Fuchs K., Hoertnagl L.,
Eugster W., Koller P.,
Kaeslin F., Merbold L. | Management matters: Testing a mitigation strategy of
nitrous oxide emissions on managed grassland |

14:30-14:45	Burri S., Haeler E., Haeni M., Braun S., Walther L., Buchmann N., Eugster W., Zweifel R.	Forest growth in Switzerland during the hot summer 2015
14:45-15:00	Sigl M., Büntgen U., Toohey M., Ludlow F., Oppenheimer C., Manning J.	Volcanism, climate and human: On an illuminative journey with an ice-core time machine
15:00-16:00	Afternoon Poster Session with coffee	

Poster Session 17:

P 17.1	Randevoson F., Cailleau G., Rajoelison G., Razakamanarivo H., Razafimbelo T., Verrecchia E.	Is grain size distribution an important factor of Oxalate-Carbonate Pathway efficiency?
P 17.2	Matteodo M., Sebag D., Vittoz P., Verrecchia E.P.	Stability of soil organic matter in Alpine ecosystems: no relationship with vegetation

Session 18: Phenology and seasonality
+ Session 19: Earth Observation addressing key Earth System processes

Room S030

Convenors 18: Martine Rebetez, Christian Rixen, This Rutishauser

Convenors 19: Stefan Wunderle, Mathias Kneubühler, Brigitte Buchmann, Alain Geiger

Earth Observation and Earth System processes

Chairpersons: Mathias Kneubühler, Stefan Wunderle

9:00-9:15	Manconi A., Dini B., Loew S.	Ground deformation in the Greater Zurich Area from differential SAR interferometry
9:15-9:30	Milani G., Tonolla D., Robinson C., Kneubühler M., Doering M., Schaepman M.	Comparison of riverine habitat dynamic cycles conditioned by hydrological regimes under different anthropogenic pressure
9:30-9:45	Sternai P., Caricchi L., Castellort S.	Erosion changes throughout glacial cycles contribute to the magma production by continental unloading and associated volcanic activity
9:45-10:00	Vogt M.-L., Käser D., Hunkeler D., Zwahlen F., Brunner P.	Monitoring run-off, accumulation and infiltration in the arid Ennedi mountains (Northern Chad), using remote sensing

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

Phenology and seasonality

Chairperson: This Rutishauser

11:00-11:15	Jing Xie, Kneubühler M., Garonna I., De Jong R., Schaepman M.E.	Altitude-dependent correlation of snow cover duration with alpine spring phenology
11:15-11:30	Asse D., Randin C., Chuine I., Delestrade A.	Understanding the effect of warming temperatures on spring phenology of trees in the Alps using data from a citizen science program
11:30-11:45	Meier M., Holzkaemper A., Fuhrer J.	Changes in the risk of spring frost damage to grapevine due to climate change in Switzerland
11:45-12:00	Ladd S.N., Dubois N., Schubert C.	Seasonal changes in hydrogen isotope fractionation between algal lipid biomarkers and lake surface water correspond to lipid production rates

12:00-12:15

Verleihung 6. Schweizer Wettbewerb für Phänologie- und Saisonalität

12:15-13:30 Lunch

Chairpersons: This Rutishauser, Martine Rebetez

13:30

Sitzung Kommission für Phänologie und Saisonalität

Posters Session 18 +19:

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|--------|---|---|
| P 18.1 | Ambrosi C., Strozzi T.,
Scapozza C.,
Wegmüller U. | Landslide Hazard Assessment in the Himalayas (Nepal and Bhutan) based on Earth-Observation Data |
| P 18.2 | Manconi A., Wolter A.,
Amann F. | Measuring surface displacements from airborne imagery with Digital Image Correlation: insights from the Cuolm Da Vi deep-seated rockslide |
| P 18.3 | Butz C., Grosjean M.,
Rey F. | Tracking of seasonal to millennial variability of biogeochemical proxies in varved lake sediments using hyperspectral imaging |

Session 20: Geoscience and Geoinformation – From data acquisition to modelling and visualisation

Room M1150

Convenors: Nils Oesterling, Adrian Wiget, Massimiliano Cannata, Michael Sinreich

Chairperson: Marcus Hofmann

09:20-09:40	Brentini M., Favre S.	Tools for the State of Geneva to manage its subsurface resources
09:40-10:00	Fraefel M., Fischer C.	GIS-based compilation and assessment of the forestry road network in Switzerland

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

Chairperson: Nils Oesterling

11:00-11:20	Allenbach R., Baumberger R., Di Tommaso G., Dürst Stucki M., Kuhn P., Kurmann-Matzenauer E., Michael S., Reynolds L., Wehrens P.	GeoMol-Development of 3D models of the Swiss Molasse Basin: Results and lessons learned
11:20-11:40		
11:40-12:00		

12:00-14:00 Lunch

Chairperson: Adrian Wiget

14:00-14:20	Rauch A., Sartori M., Gouffon Y., Möri A., Castelltort S.	Assessing Uncertainties in Bedrock Geology Maps – a “Pre-Modelling” Approach
14:20-14:40	Boulicault L., Oesterling N., Minnig C., Baumberger R.	GeoTherm: the first Information System for Deep Geothermal Energy in Switzerland
14:40-15:00	Rasera L.G., Mariethoz G., Lane S.N.	Geostatistical sub-pixel imaging of terrain elevation data

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

Chairperson: Michael Sinreich

16:00-16:20	Malard A., Debache J., Jeannin P-Y., Vogel M., Randles S., Hausmann P.	Visual KARSYS – a web-tool for the documentation of karst aquifers
16:20-16:40	Cannata M., Neumann J., Cardoso M., Rossetto R., Foglia L., Borsi I.	FREEWAT: open source water resource management platform
16:40-17:00	Pedrazzini G., Kinzelbach W.	Interactive online real-time groundwater model for irrigation water allocation in the Heihe mid-reaches, China

Posters Session 20:

P 20.1	Brentini M., Favre S., Rusillon E., Moscardiello A.	Tools for the State of Geneva to manage its subsurface resources: Relevance of geological data
P 20.2	Favre S., Brentini M., Giuliani G., Lehmann A.	Tools for the State of Geneva to manage its subsurface resources: Data model design and implementation
P 20.3	Cannata M., Mahanama S., Karyanto O., Shahid I.	4ONSE: 4 times Open and Non-conventional technology for Sensing the Environment
P 20.4	Heerwagen, E., Martini, R.	Cluster analysis and Multi-dimensional scaling – A combined approach to discriminate carbonate microfacies
P 20.5	Kanevski M., Golay J., Pereira M.	Analysis of forest fires clustering using the multipoint Morisita index
P 20.6	Leuenberger M., Parente J., Tonini M., Pereira M., Kanevski M.	Wildfire susceptibility: Comparing deterministic approach with machine learning
P 20.7	Laib M., Kanevski M.	Analysis of wind speed data using network science measures
P 20.8	Moradi G., Cardot R., Lane S.N. & Rennie C.D.	Field Data Collection Methods and Data Processing of the Influence of Low Momentum Ratio and the Rate of Sediment Transport Forcing on Confluence Hydrodynamics, Morphodynamics and Mixing

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