Monday September 10

Introductory session

08:45-08:55 Introduction

08:55-09:50 Molnar P (invited keynote)
The Growth of the Tibetan Plateau

09:50-10:10 Burg JP, Moulas E, Tajcmanová L, Cioldi S
Duration of inverted metamorphic sequence formation across the Himalayan Main Central Thrust, Sikkim, NE India

10:10-10:30 Robyr M
The Shikar Beh nappe: An enigmatic but factual NE-verging structure in the NW Indian Himalaya – In honour of Albrecht Steck

10:30-11:20 POSTER SESSION A (coffee)

Structural Geology and Tectonics: West to East “around” the Himalaya

Tectonic development of Potwar Plateau and Salt Range, NW Himalayas, Pakistan

Low-temperature thermochronology of the Indus basin in NW India: Implications for Miocene cooling

11:50-12:05 Buchs N, Epard JL, Müntener O
U-Pb zircon ages from a suprasubduction zone ophiolite, Nidar, NW Himalaya, India: Incipient arc magmatism in fore-arc oceanic crust

Evidence for east-west extension across lake Nam Co, Tibetan Plateau: Results from high-resolution 2D seismic data

12:20-14:20 Lunch
**Geodynamics**

Himalayan tectonics in three dimensions: Slab dynamics controlled mountain building, monsoon intensification, and asymmetric arc curvature

14:35-14:50  **Kelly S, Beaumont C, Butler J**
Geodynamical models of the lithospheric-scale evolution of the Hindu Kush and Pamir and implications for the Himalayan-Tibetan orogen

High Central Tibet at the onset of Indo-Asian collision derived from leaf-wax hydrogen and palynology data

Paleogeographic and paleoenvironmental reconstructions of the India-Asia collision

15:20-15:35  **Parsons A, Hosseini K, Sigloch K**
Seismic tomographic constraints for the Jurassic-to-present plate tectonic evolution of the Tethyan realm and the Himalayan-Alpine orogenic belt

15:35-16:45  **POSTER SESSION A  (coffee)**

**Structural Geology and Tectonics: MCT, STD and inside the Himalaya**

16:45-17:00  **Liu S, Zhang J, Wang J, Ling Y**
Structural and temporal insights into the South Tibetan Detachment System shear zone in Dinggye area, Central Himalaya: Implications for the evolution from crustal thickening to ductile extrusion of the mid-crust during the Himalayan orogeny

17:00-17:15  **Webster T, Gébelin A, Law R, Stahr D, Mulch A**
Meteoric fluid-rock interaction in the footwall of the South Tibetan Detachment, Sutlej Valley and Zanskar, NW India

17:15-17:30  **Montemagni C, Carosi R, Iaccarino S, Montomoli C, Jain A, Villa I**
Microstructural and geochronological investigations of the Main Central Thrust Zone and the South Tibetan Detachment System in the Alaknanda–Dhauli Ganga Valleys, NW India

17:30-17:45  **Nania L, Montomoli C, Iaccarino S, Leiss B, Di Vincenzo G, Carosi R**
Non-coaxial flow and time constraints of the South Tibetan Detachment System in Central Himalaya: An example from the Lower Dolpo and the Kali Gandaki Valley, Nepal

17:45-18:00  **Carosi R, Montomoli C, Cottle J, Iaccarino S, Tartaglia G, Visonà D**
Dating the High Himalayan Discontinuity and the Main Central Thrust in the Marshyangdi Valley, Central Nepal, by in-situ U-Th-Pb monazite petrochronology

18:30  **Buffet dinner**
Tuesday September 11

Surface processes and Gorkha earthquake

08:45-09:00  **Lavé J, Benedetti L, Valla P, Guérin C, France-Lanord C**
Giant landslide deposits and the modalities of their removal by fluvial sediment export in the central Himalayas

Evaluating the impact of earthquake-triggered landslides on riverine sediment and organic carbon export in the Central Himalaya

09:15-09:30  **Lenard S, Lavé, France-Lanord C**
$^{10}$Be - Sr - Nd applied on Bengal fan Expedition 353-354: A record of Late Cenozoic Himalayan erosion

09:30-09:45  **Schide K, Lupker M, Gallen S, Märki L, Gajurel A, Haghipour N, Christl M, Willett S**
Evaluating the role of coseismic landsliding on cosmogenic nuclides, erosion rates, and topographic evolution in mountainous landscapes: A case study of the Mw 7.8 Gorkha earthquake, Nepal

09:45-10:00  **Gajurel A, France-Lanord C, Lupker M, Lavé J, Rigaudier T**
Evaluation of stable isotopic composition of Nepalese rivers before and after the Mw 7.8 Gorkha earthquake

10:00-10:50  **POSTER SESSION B  (coffee)**

Natural hazards and Paleoseismology

10:50-11:05  **Karki A, Kargel J**
Geological and lithological controls on landslides relevant to Nepal's hydroelectric power: The case of the Jure landslide

11:05-11:20  **Dini B, Manconi A, Löw S**
Slope activity and processes in the Himalaya of Northern Bhutan

11:20-11:35  **Subedi S, Hetényi G, Sauron A**
The "Seismology-at-school in Nepal" project

The 17th century great earthquake at Hime village, Subansiri River Valley, Eastern Himalayan Front, India

11:50-12:05  **Rajendran CP, Rajendran K, John B, Sanwal J, Karthikeyan A**
The medieval cluster of great earthquakes: Implications for earthquake recurrence in the Central Himalaya

12:05-14:00  **Lunch**
**Mineralogy and Petrology**

14:00-14:15  **Phillips S**, Argles T, Harris N, Warren C, Roberts N  
The petrogenesis of kyanite leucogranites in Bhutan, Eastern Himalaya

14:15-14:30  **Shrestha S**, Larson K, Duesterhoeft E, Soret M, Cottle J  
Thermodynamic modelling of phosphate minerals: Implications for the development of P-T-t histories recorded in garnet and monazite bearing metapelites

14:30-14:45  **Imayama T**, Arita K, Fukuyama M, Yi K, Kawabata R  
1.74 Ga crustal melting after rifting at the northern Indian margin: Investigation of mylonitic orthogneisses in the Kathmandu area, Central Nepal

14:45-15:00  **Lihter I**, Larson K, Shrestha S, Cottle J  
Contact metamorphism of the Upper Mustang massif, west-central Nepal

15:00-16:10  **POSTER SESSION B**  

Inverted metamorphic gradient in large-hot orogens: The case of the Main Central Thrust zone in the Alaknanda-Dhauli Ganga Valleys, Garhwal Himalaya, India

16:25-16:40  **Braden Z**, Godin L, Kellett D, Yakymchuk C, Cottle J  
Chasing a moving target: The age of the Main Central Thrust

16:40-17:00  **Villa IM**  (invited)  
Himalayan geochronology: A road map for the next 15 years

*Travel alone to gala dinner location (<40 minutes net by public transport)*

18:30  **Buffet dinner**
**Wednesday September 12**

**Geophysics and Seismotectonics**

09:00-09:15 **Kufner SK**, Kakar N, Schurr B, Yuan X, Metzger S, Shamal S  
Seismotectonics of NE Afghanistan

Structural controls of the seismicity revealed by the Himalaya-Karnali network experiment in Western Nepal

09:30-09:45 **Ghosh A**, Mendoza M, Li B, Karplus M, Nabelek J, Sapkota S, Adhikari L, Klemperer S, Velasco A  
Fault structure and earthquake dynamics of the 2015 Mw 7.8 Gorkha earthquake in Nepal using aftershocks recorded by the NAMASTE, a dense local seismic network

09:45-10:00 **Grujic D**, Hetényi G, Cattin R, Baruah S, Benoit A, Drukpa D, Saric A  
Stress transfer and connectivity between the Bhutan Himalaya and the Shillong Plateau

10:00-10:15 **Dal Zilio L**, Jolivet R  
Seismic and aseismic slip on the Main Himalayan Thrust: Bayesian modelling accounting for prediction uncertainties

10:15-11:00 **Coffee break**

**Structural Geology and Tectonics: Eastern and Western Himalaya**

11:00-11:15 **Wood M**, Pelgay P, Sandiford M, Kohn B, Li G  
Is differential landscape evolution in the Bhutan Himalaya driven by arc segmentation?

Late Miocene-Pleistocene evolution of India-Eurasia convergence partitioning between the Bhutan Himalaya and the Shillong Plateau: New evidences from foreland basin deposits along the Dungsam Chu section, Eastern Bhutan – In memory of Gwladys Govin

11:30-11:45 **Robinson D**, McQuarrie N, Battistella C, Ghoshal S  
Incorporating geochronologic and thermochronologic data with geologic mapping in far western Nepal: Implications for tectonic models

Fault activity, tectonic segmentation, and deformation patterns in the western Himalaya on geological timescales inferred from landscape morphology and thermochronology: A summary

12:00-14:00 **Lunch**
### Finale

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>14:00-14:15</td>
<td><strong>Airaghi L</strong>, de Sigoyer J, Guillot S, Robert A, Warren C, Deldicque D</td>
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<td>Importance of the Mesozoic geological inheritance in the present structure of the Longmen Shan, Eastern Tibet</td>
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<td>Expedition 354 on the Bengal fan: Implications on Neogene erosion regime and climate</td>
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<td>14:30-14:45</td>
<td><strong>Jamieson R</strong>, Beaumont C</td>
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<td>Cryptic structures vs. channel flow: Yet another false dichotomy</td>
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<td>14:45-15:00</td>
<td><strong>Searle M</strong>, Hacker B</td>
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<td>Structural and metamorphic evolution of the Karakoram and Pamir following India-Kohistan-Asia collision</td>
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<td>15:00-16:00</td>
<td>Conclusions: Student awards, Next HKT workshop venue(s)</td>
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16:00 *End of the conference*
POSTER PRESENTATIONS
Tentative schedule as of 20.06.2018,
changes remain possible

POSTER SESSION A  Monday September 10
GEODYNAMICS, STRUCTURAL GEOLOGY AND TECTONICS, GEOLOGIC AND CLIMATIC HISTORY

TIBETAN PLATEAU

Tibetan Plateau paleolatitude and tectonic rotations: Paleomagnetic constraints

**van Hinsbergen D**, Li S, Lippert P, Huang W, Advokaat E, Spakman W
Reconstructing Greater India: Paleogeographic, kinematic, and geodynamic perspectives

Metasomatism soft mantle and growth of the Tibet Plateau

**Schmalholz S**, Duretz T, Hetényi G, Medvedev S
High differential stress in upper crust is required to maintain the relief of the Tibetan Plateau

**Gong W, Jiang X**
Varied thermo-rheological structure, mechanical anisotropy, and lithospheric deformation of the southeastern Tibetan Plateau

**Laskowski A**
Tectonic evolution of the Yarlung Suture Zone: Subduction controlled crustal deformation

**Orme D**
Forearc basin record of continental collision in Southern Tibet

Chen J, **Carosi R**, Cao H, Montomoli C, Iaccarino S, Langone A, Li G
Structural setting of the Yalaxiangbo Dome, SE Tibet, China

GEOLOGICAL AND CLIMATIC HISTORY

Impact of mantle dynamics on Himalayan tectonics, morphology, climate, and biosphere
Huyghe P, Bernet M, Galy A, Naylor M, Cruz J
Himalayan exhumation rates since 12 Ma from detrital apatite fission-track thermochronology, Middle Bengal Fan, IODP Expedition 354

Yoshida K, Osaki A, France-Lanord C
Provenance and paleodrainage signature in Bengal Fan deposits

Paleogene evolution of the proto-Paratethys Sea in Central Asia, Tarim Basin, western China: Driving mechanisms and paleoenvironmental consequences

Climate variability in the Central Indian Himalaya during the last ~15 ka: Evidences of Indian Summer Monsoon variability from multiproxy studies

Tardif D, Fluteau F, Donnadieu Y, Le Hir G, Ladant JB, Poblete F
Influence of paleogeography on Asian Cenozoic climate

Shukla A, Mehrotra R
India-Asia collision and biotic exchange: Evidences from Cenozoic plant megaremains

Gautam S, Upadhyay R, Das M, Behera B
Early Permian palynomorphs from the Saltoro Formation, Shyok Suture Zone, Northern Ladakh, India

Sanyal P, Roy B, Ghosh S
Role of tectonics on abundance of C3-C4 plants: Evidence from the Mio-Pliocene Siwalik deposits of Central Himalaya

Xie M
Impacts of marine cloud brightening scheme on the Tibetan Plateau

EASTERN HIMALAYA AND BURMA

Mozhikunnath Parameswaran R, Rajendran K, Rajendran CP
A geodynamic perspective of the west and the east Himalayan syntaxes: Inferences from seismic sources

Patra A, Saha D
Paleostress reconstruction from fault slip analysis in the Main Boundary Thrust zone, foothill Darjeeling Himalaya

Seismotectonics of Bhutan and its foreland: New insights from the GANSSE passive seismic experiment

Uplift of the Indo–Burman Ranges and palaeodrainage of the eastern Himalayan region: A combined provenance and age elevation profile study, western Myanmar

Cenozoic evolution of the Burmese subduction margin and implications for the history of India-Asia convergence
First paleomagnetic constraints on the latitudinal displacement of the West Burma block

Grujic D, Govin G, Barrier L, Bookhagen B, Coutand I, Cowan B, Hren M, Najman Y
Formation of a rain shadow: O and H stable isotope records in authigenic clays from the Siwalik Group in Eastern Bhutan

NORTHWEST HIMALAYA AND PAMIR

Baud A
The 4th HKT Lausanne, 30 years ago: review on local researches in Himalaya and Tibet – In Memory of Maurizio Gaetani

Ahsan N, Mahmood T, Qayyum A, Miraj M, Rehman S
Muzaffarabad paleohigh, NW Himalaya, Pakistan: Its impacts on depositional settings and development of Hazara-Kashmir syntaxis

Ghani H, Sobel ER, Zeilinger G, Glodny J, Zapata S
Structural evolution of Kohat and Potwar fold thrust belts in Pakistan: New evidence from low temperature thermochronology

Provenance of Thal Desert sands, Central Pakistan

Maitra A, Anczkiewicz R, Anczkiewicz A, Porebski S, Mukhopadhyay D
Thermal evolution and provenance of the Himalayan foreland basin of western India constrained from apatite fission track analyses and U-Pb detrital zircon ages

Pamir tectonic evolution and associated environmental changes recorded since 40 Ma in the western Tarim Basin, Aertashi section

Bhattacharya G, Robinson D
Deformation of the Indus Basin, Ladakh, NW India

Buchs N, Epard JL, Steck A
U-Pb zircon ages in the Upshi Molasse at Martselang, Indus Molasse, Ladakh

Singh S, Gill H, Singh T, Singh S
Reactivation of MBT along Northwestern Himalayas

NEPAL HIMALAYA

Webster T, Gébelin A, Law R, Stahr D, Mulch A
Meteoric fluid-rock interaction in the footwall of the South Tibetan Detachment, Sutlej Valley and Zanskar, NW India

Robinson D, McQuarrie N, Battistella C, Ghoshal S
Geologic mapping, modelling, and kinematic reconstructions from far-western Nepal
Battistella C, Robinson D, McQuarrie N, Ghoshal S
Using thermochronology to validate a balanced cross section along the Karnali River, far-western Nepal

Bouscary C, King G, Herman F, Biswal R, Chanard K, Lavé J, Hetényi G
Luminescence dating and landscape evolution of the Himalaya, Nepal

Shrestha S, Larson K, Martin A, Cottle J, Smit M
The Greater Himalayan thrust belt: Insight into the assembly of the exhumed Himalayan metamorphic core, Modi Khola Valley, Central Nepal

Ghoshal S, McQuarrie N, Robinson D
Determining sub-surface geometry by integrating transport-parallel distribution of cooling ages, surface geology and data from the 2015 Gorkha earthquake

Eizenhöfer P, McQuarrie N, Ehlers T, Ghoshal S
Understanding the relationship between the surface topography and subsurface geometry of the Main Himalayan Thrust in Central Nepal through numerical landscape evolution models

Hubbard M, Gajurel A, Seifert N
Cross faults and their role in Himalayan tectonics: The Benkar Fault, an example from the Khumbu region, Nepal

Iwano H, Danhara T, Takigami Y, Sakai H
Three stages of cooling found in Mount Everest massif since 15 Ma based on thermochronologic studies and their implications

MCT, STD

Webb A, Dong H, Xu Z
The Main Central thrust–South Tibet fault branch line: A closely-spaced structural survey across a controversial feature

Nania L, Montomoli C, Iaccarino S, Leiss B, Carosi R
High-temperature ductile deformation and inverse thermal metamorphic gradient in the Main Central Thrust zone: An example from the Lower Dolpo Region, Western Nepal

Montomoli C, Iaccarino S, Nania L, Leiss B, Carosi R
Ductile to brittle deformation in the South Tibetan Detachment System, Himalaya: A telescoped regional “contact” metamorphism?

Gébelin A, Jessup M, Teyssier C, Cosca M, Law R, Brunel M, Mulch A
Tectonic implications of 15 Ma meteoric water infiltration in the South Tibetan Detachment, Mt. Everest, Himalaya
SURFACE PROCESSES AND GEOMORPHOLOGY, MINERALOGY AND PETROLOGY, GEOPHYSICS, NATURAL HAZARDS

POSTER SESSION B  Tuesday September 11

SURFACE PROCESSES AND GEOMORPHOLOGY

Fort M
Functioning of a small “landslide catchment” and its geomorphic impacts: The Ghatte Khola, Myagdi District, Nepal Himalaya

Godard V, Mahéo G, Mukherjee S, Sterb M, Maleappane É, Leloup H, Team ASTER
Rapid denudation at the Dhauladhar range front, Himachal Pradesh, India

10Be systematics in the Tsango-Brahmaputra catchment: The cosmogenic nuclide legacy of the eastern Himalayan syntaxis

10Be - Sr - Nd erosion patterns in the Narayani watershed, Central Nepal, viewed through the Valmiki Siwalik section

Huber M, Gallen S, Lupker M, Haghipour N, Christl M, Gajurel A
Assessing provenance, exposure timing, and emplacement processes of large exotic boulders in central Himalayan river valleys

Malatesta L, Berger Q, Avouac JP
A model to quantify sediment mixing across alluvial piedmonts with cycles of aggradation and incision

De Palézieux L, Leith K, Löw S
Principal joint sets and geomorphic markers in NW Bhutan

Miraj M, Mehmood H, Kashif M, Zaidi S, Ahsan N
Fracture analysis and discrete fracture network modelling of Early Eocene Sakesar limestone, Eastern Salt Range, Potwar Plateau, Pakistan

MINERALOGY AND PETROLOGY

Deschamps F, de Sigoyer J, Duchêne S, Bosse V, Vanderhaeghe O
Generation and emplacement of Triassic granitoids within the Songpan Garze accretionary-orogenic wedge from different sources, mantle-derived and crust-derived, Eastern Tibetan plateau, China

Grujic D, Ashley K, Coble M, Coutand I, Kellett D, Larson K, Whipp D, Whynot N
Inverted temperature fields: Peak metamorphic and deformational temperatures across the Lesser Himalayan Sequence

Salvi D, Mathew G, Borgohain B, Pande K
Thermochronological constraints on the tectono-thermal evolution of Dibang valley, Eastern Himalaya
Srivastava RK
Paleoproterozoic distinct mafic intrusive rocks from the Himalayan Mountain Belt, India: Implications for their connection to a widespread ~1.9 Ga large igneous province event of the Indian Shield and Western Australia

Rapa G, Groppo C, Rolfo F, Mosca P
Metamorphism and CO₂-production in collisional orogens: Case studies from the Himalayas

Nakajima T, Sakai H, Iwano H, Danhara T
Thermal history of the Higher Himalayan Crystallines and over- and underlying sediments in west-central Nepal: LA-ICP-MS zircon fission-track analyses

Dhiman R, Singh S
Remelting of Neoproterozoic Dalhousie and Dhauladhar granite during Cambro-Ordovician: Constraints from in situ U-Pb zircon geochronology, Himachal Pradesh, NW Himalaya

Irum I, Altenberger U, Zeilinger G, Günter C, Ghani H
Tourmaline and micas as petrogenetic minerals: Preliminary study from two-mica Mansehra Granite, KPK, Pakistan

Sajid M, Andersen J, Rocholl A, Wiedenbeck M
Evidence of early Paleozoic Andean-type orogeny along the northern Indian Plate based on U-Pb zircon dating and geochemistry of granites in northern Pakistan

Yuan W, Zhou P
Mineralizing epochs, exhumation, and preservation of the Hariza-Halongxiuma polymetallic ore district in Eastern Kunlun Mountains, Northeastern Tibetan Plateau, China

Ping Z
The ASTER data is used to predict ore prospecting in Liuyuan area of Gansu Province

Zhou S, Qiu RZ, Ren XD, Qiu L, Zhao LK, Zhu QL
Zircon SHRIMP U-Pb dating of high potassium rhyolite at Caze area of Tibet and its geological significance

Hetényi G, Pistone M, Nabelek PI, Baumgartner LP
Geophysical and petrological assessment of the partially molten plutons, Lhasa Block

Alvizuri C, Hetényi G
Seismic full moment tensors for deep earthquakes beneath the Himalayas, and their relevance to metamorphism in the region

GEOPHYSICS

Manglik A, Thiagarajan S, Suresh M, Adilakshmi L, Babu M, Chakravarthy N
Variations in the basement structure of the Indian plate along the Himalayan Arc: Results from magnetotelluric study

Kumar N, Babu V, Verma S, Hazarika D, Yadav D
Mapping the crustal architecture by surface wave and ambient noise tomography in the Himalaya-Karakoram-Tibet region
Wang Q, Chen G
Geodetic evidence for a subhorizontal underthrusting of the India plate beneath the Himalaya

Ghangas V, Mishra O
Source characterisation of NW Himalaya and its surrounding region: Geodynamical implications

Hazarika D, Wadhawan M, Paul A, Kumar N
Crustal configuration and Moho geometry in the NW Himalaya and Ladakh-Karakoram collision zone based on receiver function study

Western Nepal crustal structure from P-to-S converted seismic waves

Li W, Xu C, Yi L, Wen Y, Zhang X
Source parameters and seismogenic structure of the 2017 Mw 6.5 Mainling earthquake in Tibet, China

Le Roux-Mallouf R, Ferry M, Ritz JF, Cattin R, Drukpa D, Pelgay P
A 3500-yr-long paleoseismic record for the Himalayan Main Frontal Thrust, Western Bhutan

Rajendran K, Mozhikunnath Parameswaran R, Rajendran CP
Assessing the rupture modes of the Himalayan earthquakes: Historical and recent examples

NATURAL HAZARDS

Recent activity on the Main Boundary Thrust in western Nepal: Neo-tectonic constraints from high-resolution Pleiades satellite images

Multispectral and geomorphological detection and field validation of lithologies relevant to glacier dynamics in High Mountain Asia

Clustering of rock avalanches and rock avalanche deposits along the Main Central Thrust and within the Higher Himalayan Crystalline Sequence, Sikkim

Meena SR, Westen C, Mavrouli O
Web based landslide management system for Nepal

Regmi D, Kargel J
Natural Hazards and their impacts on downstream areas in Nepal Himalaya

Saha D, Patra A
Brittle structures and liquefaction features in Mio-Pliocene strata in the foothill Darjeeling Himalaya: Are these seismogenic?

Das R, Wason H
Uncertainty analysis for seismic hazard: A case study for NE India region
Tariq S, Khan Z
2D flow modelling of assumed breach of Tarbela Dam, Pakistan, using geospatial techniques

Chen Y, Zhang Z
Mitigation of carbon loss in the northern permafrost region through stratospheric aerosol geoengineering implement