ORAL PRESENTATIONS
Schedule as of 31.08.2018, not expected to change

Monday September 10

Introductory session (chair: Hetényi G)

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, Moulasses 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 (chair: Montomoli C)

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 (chair: Guillot S)**

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 (chair: Lupker M)**

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

18:20: 18:30 **Group photo; Buffet dinner**
Tuesday September 11

Surface processes and Gorkha earthquake (chair: King G)

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

09:00-09:15  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

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

09:30-09:45  Lenard S, Lavé, France-Lanord C
$^{10}$Be - Sr - Nd applied on Bengal fan Expedition 353-354: A record of Late Cenozoic Himalayan erosion

09:45-10:00  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 (chair: Kufner SK)

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 (chair: Buchs N)

**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 *(coffee)*

### Mineralogy and Petrology (chair: Grujic D)

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 (chair: Diehl T)

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 (chair: Robyr M)

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 *(chair: Hetényi G)*

14:00-14:15  **Airaghi L, de Sigoyer J, Guillot S, Robert A, Warren C, Deldicque D**  
Importance of the Mesozoic geological inheritance in the present structure of the Longmen Shan, Eastern Tibet

Expedition 354 on the Bengal fan: Implications on Neogene erosion regime and climate

14:30-14:45  **Jamieson R, Beaumont C**  
Cryptic structures vs. channel flow: Yet another false dichotomy

14:45-15:00  **Searle M, Hacker B**  
Structural and metamorphic evolution of the Karakoram and Pamir following India-Kohistan-Asia collision

15:00-16:00  Conclusions: Student awards, Next HKT workshop venue(s)

16:00  *End of the conference*
POSTER PRESENTATIONS
Schedule as of 31.08.2018, not expected to change
Poster board numbers are shown in pink

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

   Reconstructing Greater India: Paleogeographic, kinematic, and geodynamic perspectives

   Metasomatism soft mantle and growth of the Tibet Plateau

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

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

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

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

8. **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
<table>
<thead>
<tr>
<th>No.</th>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Huyghe P, Bernet M, Galy A, Naylor M, Cruz J</td>
<td>Himalayan exhumation rates since 12 Ma from detrital apatite fission-track thermochronology, Middle Bengal Fan, IODP Expedition 354</td>
</tr>
<tr>
<td>12</td>
<td>Yoshida K, Osaki A, France-Lanord C</td>
<td>Provenance and paleodrainage signature in Bengal Fan deposits</td>
</tr>
<tr>
<td>16</td>
<td>Shukla A, Mehrotra R</td>
<td>India-Asia collision and biotic exchange: Evidences from Cenozoic plant megaremaens</td>
</tr>
<tr>
<td>17</td>
<td>Gautam S, Upadhyay R, Das M, Behera B</td>
<td>Early Permian palynomorphs from the Saltoro Formation, Shyok Suture Zone, Northern Ladakh, India</td>
</tr>
<tr>
<td>18</td>
<td>Sanyal P, Roy B, Ghosh S</td>
<td>Role of tectonics on abundance of C3-C4 plants: Evidence from the Miocene-Pliocene Siwalik deposits of Central Himalaya</td>
</tr>
<tr>
<td>19</td>
<td>Xie M</td>
<td>Impacts of marine cloud brightening scheme on the Tibetan Plateau</td>
</tr>
</tbody>
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**EASTERN HIMALAYA AND BURMA**

<table>
<thead>
<tr>
<th>No.</th>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Mozhikunnath Parameswaran R, Rajendran K, Rajendran CP</td>
<td>A geodynamic perspective of the west and the east Himalayan syntaxes: Inferences from seismic sources</td>
</tr>
<tr>
<td>22</td>
<td>Patra A, Saha D</td>
<td>Paleostress reconstruction from fault slip analysis in the Main Boundary Thrust zone, foothill Darjeeling Himalaya</td>
</tr>
<tr>
<td>Page</td>
<td>Title</td>
<td>Authors</td>
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**NORTHWEST HIMALAYA AND PAMIR**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>The 4th HKT Lausanne, 30 years ago: review on local researches in Himalaya and Tibet – In Memory of Maurizio Gaetani</td>
<td>Baud A</td>
</tr>
<tr>
<td>46</td>
<td>Muzaffarabad paleohigh, NW Himalaya, Pakistan: Its impacts on depositional settings and development of Hazara-Kashmir syntaxis</td>
<td>Ahsan N, Mahmood T, Qayyum A, Miraj M, Rehman S</td>
</tr>
<tr>
<td>47</td>
<td>Structural evolution of Kohat and Potwar fold thrust belts in Pakistan: New evidence from low temperature thermochronology</td>
<td>Ghani H, Sobel ER, Zeilinger G, Gledny J, Zapata S</td>
</tr>
<tr>
<td>49</td>
<td>Thermal evolution and provenance of the Himalayan foreland basin of western India constrained from apatite fission track analyses and U-Pb detrital zircon ages</td>
<td>Maitra A, Anczkiewicz R, Anczkiewicz A, Porebski S, Mukhopadhyay D</td>
</tr>
<tr>
<td>51</td>
<td>Deformation of the Indus Basin, Ladakh, NW India</td>
<td>Bhattacharya G, Robinson D</td>
</tr>
<tr>
<td>52</td>
<td>U-Pb zircon ages in the Upshi Molasse at Martselang, Indus Molasse, Ladakh</td>
<td>Buchs N, Epard JL, Steck A</td>
</tr>
</tbody>
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**NEPAL HIMALAYA**

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<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Meteoric fluid-rock interaction in the footwall of the South Tibetan Detachment, Sutlej Valley and Zanskar, NW India</td>
<td>Webster T, Gébelin A, Law R, Stahr D, Mulch A</td>
</tr>
<tr>
<td>36</td>
<td>Geologic mapping, modelling, and kinematic reconstructions from far-western Nepal</td>
<td>Robinson D, McQuarrie N, Battistella C, Ghoshal S</td>
</tr>
</tbody>
</table>
**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

**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
POSTER SESSION B  Tuesday September 11

SURFACE PROCESSES AND GEOMORPHOLOGY, MINERALOGY AND PETROLOGY, GEOPHYSICS, NATURAL HAZARDS

SURFACE PROCESSES AND GEOMORPHOLOGY

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

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

   $^{10}$Be systematics in the Tsangpo-Brahmaputra catchment: The cosmogenic nuclide legacy of the eastern Himalayan syntaxis

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

   Assessing provenance, exposure timing, and emplacement processes of large exotic boulders in central Himalayan river valleys

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

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

8. **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

11. **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

    Inverted temperature fields: Peak metamorphic and deformatinal temperatures across the Lesser Himalayan Sequence

13. **Salvi D, Mathew G, Borgohain B, Pande K**
    Thermochronological constraints on the tectono-thermal evolution of Dibang valley, Eastern Himalaya
Srivastava RK

14 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

15 Metamorphism and CO$_2$-production in collisional orogens: Case studies from the Himalayas

Nakajima T, Sakai H, Iwano H, Danhara T

16 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

17 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

18 Tourmaline and micas as petrogenetic minerals: Preliminary study from two-mica Mansehra Granite, KPK, Pakistan

Sajid M, Andersen J, Rocholl A, Wiedenbeck M

19 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

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

Ping Z

21 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

22 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

23 Geophysical and petrological assessment of the partially molten plutons, Lhasa Block

Alvizuri C, Hetényi G

24 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, Chakravarty N

25 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

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

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

Iturrizaga L
Glacier lake outbursts and glacier surges in the Karambar Valley, Hindu Kush-Karakoram Mountains, Pakistan