

# International Workshop on Paleoseismology, Active Tectonics, and Archaeoseismology Tuesday, September 27

Time	Duration	Title	Speaker
8:00 AM	30 mn	Poster - Flash presentations #1	
8:15 AM			
		Session "Earthquake of Plate Interiors"	
8:30 AM	15 mn	Surface rupture of the 2020 Mw 5.1 Sparta, North Carolina, USA Earthquake and evidence of an active structure with recurrent  Quaternary deformation	Figueiredo P.
8:45 AM	15 mn	Paleoearthquake rupture scenarios and the role of fault geometrical complexity on the Yangsan Fault, SE Korea	Kim T.
9:00 AM	15 mn	Paleoearthquakes Constrained by 2D and 3D Paleoseismic trenching: A case study along the Yangsan Fault, South Korea	Naik Sambit P.
9:15 AM	15 mn	Cumulative and coseismic slip observed on the intracontinental Petrinja-Pokupsko Fault, source of the Mw 6.4 2020 Petrinja earthquake (Croatia): Insights from morphotectonic, paleoseismologic and geodetic data	Henriquet M.
9:30 AM	15 mn	Paleoseismic characterization of the eastern Rhine Graben Boundary Fault (RGFB), Southern Germany	Pena-Castellnou S.
9:45 AM	15 mn	The silent and slow active faults of Germany: results from paleoseismological trenching	Reicherter K.
10:00 AM			
10:15 AM	60	a se a la la postens	
10:30 AM	60 mn	Coffee Break and <b>POSTERS</b>	
10:45 AM			
11:00 AM	15 mn	Characterizating the Quaternary activity of the NE termination of the Cévennes Fault System and origin of the movement	Cathelin N.
11:15 AM	15 mn	Was the XXth century earthquake cluster in Mongolia a coincidence?	Klinger Y.
11:30 AM	15 mn	Slip distribution and segmentation of the Ar-Hötöl surface rupture along the Khovd Fault (Mongolian Alay)	Ferry M.
11:45 AM	15 mn	Earthquake Ruptures and Seismotectonics of the NE Tien Shan	Tsai C-H.
12:00 PM	15 mn	Spatial and temporal variations in slip rate across extensional fault networks	Mildon Z.
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2:00 PM	20 mm	Doctor Flock wrosentations #2			
2:15 PM	30 mn	Poster - Flash presentations #2			
	Session "Archeoseismology and Historical Earthquakes"				
2:30 PM	15 mn	From stratigraphic analysis to Finite Element models in the archaeoseismic study of the Ronta bell tower	Montabert A.		
2:45 PM	15 mn	Qualitative and quantitative assessment of a lake sensitivity to paleoseismic events in the NW Alps	Banjan M.		
3:00 PM	15 mn	The twisted gate - repeated destructive earthquakes in Cluj-Napoca, Transilvania	Kazmer, M.		
3:15 PM	15 mn	Assessing historical earthquake sequences with Coulomb stress models	Diercks M.		
3:30 PM	15 mn	Did a 3,800 years old ~Mw9.5 earthquake trigger major social disruption in the Atacama Desert?: Geoarchaeological evidence	Easton Vargas G.		
3:45 PM	15 mn	Surface expression of historical earthquakes in central and eastern Nepal	Bollinger L.		
4:00 PM					
4:15 PM	60 mn	Coffee Break and <b>POSTERS</b>			
4:30 PM	00 11111				
4:45 PM					
5:00 PM	15 mn	Investigating Holocene earthquakes along an Oceanic Transform Fault: the Húsavík-Flatey Fault in northern Iceland	Matrau R.		
5:15 PM	15 mn	Paleo-tsunami records response to submarine volcano activities in Korea	Lee H.		
5:30 PM	30 mn	Poster - Flash presentations #3			
5:45 PM	30 11111	Poster - Plasti presentations #5			
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM		EDITH workshop « Hands-on workshop on Artificial Intelligence in Geosciences", lead by Dr. Anika Br	aun		
7:00 PM		LOTTE WORKSHOP W Halles On Workshop on Artificial intelligence in Geosciences , lead by Dr. Allika Di	uuiii		
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10:00 PM					

### **POSTER Flash Presentations #1**

Marconato Leo

Duperret Anne

Baize Stéphane New perspectives in studying active faults in metropolitan France

Kim Chang-Min Long-term weakening and short-term rupture propagation processes of the intraplate Yangsan Fault, SE Korea, using low-angle borehole drilling

Kim Dong-Eun Tectonic geomorphology of the Yangsan fault: regional implications for active tectonics in the intraplate region

Lefevre Marthe Quantifying fault activity over different time scales in the Lower Rhine Graben, towards a new fault database for seismic hazard assessment.

Insights on fault reactivation during the 2019 November 11, Mw 4.9 Le Teil earthquake in southeastern France, from a joint 3-D geological model and InSAR time-series

analysis

Park Kiwoong Paleoseismic characteristics based on geomorphological and structural geological analysis for the central part of the Ulsan fault zone, SE Korea

Perrin Clement Looking for quaternary fault activities in the Armorican Massif (R8 FACT region): preliminary results of a geophysical analysis along the Southern Armorican Shear Zone.

Audin Laurence M>7.5 Earthquake on the Pallatanga Fault evidenced by archeoseismic damage and secondary landslides in Riobamba region of Ecuador

A paleoseismic attempt using archeoseismology in a region of low intraplate seismicity in the Chalk of the Paris Basin, Normandy, France. Is the Fécamp-Lillebonne fault

always active?

Gaidzik Krzysztof Historical earthquakes in Lower Silesian Block - an archeoseismological approach

Marshall Neill Re-evaluating the 1948 Ashgabat earthquake, Turkmenistan. Evidence for a multi-fault rupture?

Kázmér Miklós Coherent toppled walls - an archaeoseismological assessment

Ramirez-Herrera Maria-Teresa The largest earthquake and tsunami of the last five centuries in Mexico uncovered in historical and geological records

#### POSTER Flash Presentations #2

Alvarado Alexandra Evidence of progradation of the reverse fault system of Quito towards a transpressive fault system

Alvarellos Victoria From emergent to blind: The Active Andean Thrust Front in the Southern Precordillera, Argentina

Arora Shreya Estimation of the slip rate along the un-ruptured fault segment of the M7.2 1896 Rikuu earthquake, northeast Japan.

Azuma Takashi Vertical slip-rate on the Shibetsu fault zone in the most eastern part of Hokkaido, Japan

Goswami Chandreyee The Uplift History along the Mishmi Thrust within the Eastern Himalayan Syntaxis during Neogene and Quaternary time

Cheon Youngbeom Near-surface upward termination of the contractional strike-slip ruptures: Evidence from paleoearthquakes of the Yangsan Fault in SE Korea

Cinti Francesca Romana Analysis of trenching records in central Apennines: from data uncertainties to earthquake recurrence estimates and rupture scenarios

Debaecker Sophie Studying seismic supercycles through coral microatolls: the study case of Ishigaki island, Japan.

Gomez-Novell Octavi Geomorphological evidence of Quaternary activity in the Amarguillo Fault, a transtensional structure within the Alhama de Murcia Fault system (SE Spain)

Gwon Ohsang Paleoseismic characteristics along the southern Ulsan Fault Zone, SE Korea

Interactions between active tectonics and gravitational deformation along the Billecocha fault system (Northern Ecuador): insights from morphological and

paleoseismological investigations

Kim Young-Seog New suggestion for the regulation of safe separation distance from active faults based on damage characteristics

Koehler Richard Quaternary mapping and paleoseismic trenching of the Bonham Ranch fault: An active structure along the Walker Lane/Basin and Range transition zone, Nevada USA

Lei Shengxue Seismogenic structure of the 1976 Ninghe (North China) Ms6.9 earthquake and its tectonic implications

Livio Franz Seeking seismogenic sources for paleoearthquakes in the Alps: clues from a DSGSD in the Italian Southern Alps.

Maslac Josipa Structural architecture and kinematic properties of faults in the Dubrovnik area and its hinterland (Croatia, Bosnia and Herzegovina, Montenegro)

### **POSTER Flash Presentations #3**

Jomard Hervé

Molins Vigata Julia Geological, geomorphological, geophysical and paleoseismic exploration along the Palomares Fault (southeast Iberian Peninsula)

Niemi Tina A New Look at the Ground Rupture of the Motagua Fault in the 1976 Guatemalan Earthquake along the Caribbean-North American Plate Boundary

Olle Marc

New paleoseismic data for the characterization of a complete transect in the Alhama de Murcia Fault (SE Spain)

Pamumpuni Astyka Paleoseismological investigation in a remote region of Kalimantan, Indonesia

Pierce Ian Trenching the Greater Caucasus Frontal Thrusts

Pizza Marco LIKELIHOOD OF PRIMARY SURFACE FAULTING: A SEQUEL

Rodriguez Piceda Constanza Contributions of lithospheric strength, mantle hydration and slab flexure to seismic localization in the southern Central Andes

Sue Christian Tectonic Transfer from the Western Alpine Front to the French Rhône Valley in its 3D-Structural Context

Tringali Giorgio Sites selection for creepmeter fault monitoring in a complex volcano-tectonic framework: the Mt. Etna eastern flank as an example

Vega Ruiz Ambrosio Late Cenozoic reactivation of trench-parallel strike-slip system and tectonic forcing of drainages close to the Oroclinal Bend, Andean forearc of N-Chile

Walker Richard Active faulting, earthquakes, and geomorphology of the Main Kopetdag fault, Turkmenistan

Han LongFei Impact of geometrical complexity on start and propagation of strike-slip earthquakes: The case of the 2021 Mw7.4 Madoi earthquake, China

Pinzon Nicolas Paleoseismology along the Aksay segment of the Altyn Tagh fault, China

Stress field changes in Central Europe since Late Miocene to date as determined from volcanic rocks and extensometric measurements in the Bohemian Massif, Central

Europe

Petra Stepancikova

### Wednesday, September 28

Time	Duration	Title	Speaker		
8:00 AM	15 mn	Poster - Flash presentations #4			
	Session " Earthquakes Geology and General Contributions"				
8:15 AM	15 mn	Neotectonic of Papua, Indonesia	Pamumpuni A.		
8:30 AM	15 mn	Paleoseismological trenching and tectonic geomorphology reveal an active fault with evidence for repeated large Holocene earthquakes in Papua New Guinea	Whitney B.		
8:45 AM	15 mn	First palaeoseismological constraints on the Anghiari normal fault (Upper Tiber Valley, Northern Apennines)	Testa A.		
9:00 AM	15 mn	Capable or not? The intriguing case of the Pescopagano fault in the area of the 1980, Mw 6.9 Irpinia earthquake, southern Italy	Ferranti L.		
9:15 AM	15 mn	Quantifying the slip over various time scales on active normal faults in the Apennines (Italy): challenges on the Liri fault from paleoearthquakes to long-term slip rate	Riesner M.		
9:30 AM	15 mn	Paleoseismological surveys for the identification of capable faults in urban areas: the case of the Mt. Marine Fault (Central Apennines, Italy)	lezzi F.		
9:45 AM	15 mn	Where are seismites formed? New insights from lacustrine sediments with implications for palaeoseismology	Marco S.		
10:00 AM					
10:15 AM	60 mn	Coffee Break and POSTERS			
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10:45 AM					
11:00 AM	15 mn	Mendocino Triple Junction, Humboldt County, California: Terraces and Tectonics in the latest Quaternary	Patton J.		
11:15 AM	15 mn	Paleoseismic study of the Elk Lake fault: A newly identified Holocene-active fault in the northern Cascadia forearc near Victoria, British Columbia, Canada	Harrichlausen N.		
11:30 AM	15 mn	Seismogenic faults, seismo-lineaments, and related thermal waters in the Colca basin, S Peru	Gaidzik K.		
11:45 AM	15 mn	Architecture, upper crustal extension, and collapse of a continental shelf raised at an accelerated rate during the Quaternary, northern Chile	Gonzales-Alfaro J		
12:00 PM	15 mn	Major California faults are smooth across multiple scales at seismogenic depth	Lomax A.		
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2:15 PM	30 mn	Poster - Flash presentations #5		
	Session "Advances and Challenges in Dating"			
2:30 PM				
2:45 PM	30 mn	Luminescence and ESR dating for palaeoseismology and active tectonics: limits and future possibilities	Tsukamoto S.	
3:00 PM	15 mn	Inheritance of Detrital Charcoal: Implications for Age Estimates on Paleoearthquakes	Rockwell T.	
3:15 PM	15 mn	Assumptions and limitations in interpreting 10Be and 26Al cosmogenic isotope surface and sub-surface data	Van Der Woerd J.	
3:30 PM	15 mn	2022 updates regarding slip rates along Patagonia's fastest slipping strike strip faults: the Magallanes Fault (MF) and Liquiñe-Ofqui fault zone (LOFZ)	De Pascale G.	
3:45 PM	15 mn	Quaternary faults reactivation in the Northern Calcareous Alps (Austria): kinematics and timing inferred from caves passage offsets	Szczygiel J.	
4:00 PM				
4:15 PM	60 mn	Coffee Break and POSTERS		
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4:45 PM				
5:00 PM	15 mn	Climate and tectonic forcings driving the coastal landscape evolution: clues form late quaternary fan lobes in Kachchh region (NW India)	Srivastava E.	
5:15 PM	15 mn	Luminescence dating of the dammed lake formed by the catastrophic Beshkiol landslide along the Naryn River (Tien Shan)	Losen J.	
5:30 PM	15 mn	Episodic deformation in the western Transverse Ranges of California during the past 125 kyr	Onderdonk N.	
5:45 PM	15 mn	A new long-term slip-rate on the Banning Fault to help untangle the deformation pattern of southern California	Meriaux A-S.	
6:00 PM				
6:15 PM				
6:30 PM				
6:45 PM		EDITH workshop « Hands-on workshop on Artificial Intelligence in Geosciences", lead by Dr. Anika Braun.		
7:00 PM				
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#### **POSTER Flash Presentations #4**

Figueiredo Paula Late Pleistocene and Holocene paleoseismology and deformation rates of the Pleasant Valley Fault (Nevada, USA)

Combining ESR and 10Be dating of fluvial terraces of the Santo Domingo River on the Southeastern of Mérida Andes, Venezuela: Methodology and tectonic

Guzman Oswaldo implications.

Choi J-H Constraint of Quaternary fault activity using quartz OSL and detrital zircon U-Pb ages

Arrowsmith Ramon Robotic mapping, machine learning, and particle dynamics for earthquake geology

Benites Belen Analysis of geomorphological index for the characterization of the neotectonic activity of the Tena Fault in the Amazon foothills

Buck Jason Benefits and techniques for using digital photography and structure from motion software in paleoseismic field studies with an emphasis on low-cost methods.

Choi Yire Introduction to the mapping and quantitative analysis of surface ruptures using deep learning and satellite

### **POSTER Flash Presentations #5**

Cornejo Carolina First paleosismology analysis in Ecuadorian Amazon piedmont: implication for seismic risk analysis.

Gruetzner Christoph Remote sensing of active tectonics in the Eastern and Southern Alps

Kaci Tassadit Seismotectonic activity in the NW Cotentin Peninsula (Normandy, France). The input of offshore high-resolution data.

Leclerc Frederique Unravelling the recent rupture history of a submarine active fault using video-derived photogrammetry acquired with underwater vehicles

Marliyani Gayatri Measuring spatial anomalies of radon to explore their usability to study active fault zone in Ambarawa, Central Java, Indonesia

Palagonia Sylvain Can high-resolution seismic profiles be interpreted similarly to paleoseismological trenches in order to reconstruct the past rupture history of submarine faults?

High-Resolution multichannel seismic reflection experiment with active tectonics objectives: Defining the deep geometry of the faults bounding the Guadalentin

Perea Manera Hector Depression (SE Iberia)

Pousse Lea Characterization of normal fault scarp using convolutional neural network: application to Mexico Vassallo Riccardo Numerical 3D back-slip reconstructions from high-resolution imagery of Western Alps active faults

De Sigoyer Julia Active Subaquatic Fault Segments in Lake Iznik along the Middle Strand of the North Anatolian Fault, and paleoseismicty of the NAF, NW Turkey

## Thursday, September 29

Time	Duration	Title	Speaker
8:00 AM	30 mn	Poster - Flash presentations #6	
8:15 AM		Poster - Flash presentations #0	
		Session "Advances in earthquake geology techniques (onland and offshore)"	
8:30 AM	15 mn	Horizontal offset measurements along the surface rupture of the 1995 Kobe earthquake from aerial photo correlation using MicMac	Choi J-H.
8:45 AM	15 mn	Styles of Quaternary deformation along the south-central Chilean forearc revealed by LiDAR	Melnick D.
9:00 AM	15 mn	Segmentation of the Trévaresse thrust system (Provence) from airborne LiDAR topography and field mapping. Implications for paleosismic investigations on the Lambesc 1909 earthquake.	Rizza M.
9:15 AM	15 mn	Predicting spatial patterns of landslides induced by the 2010 and 2021 Haiti earthquakes with machine learning methods	Braun A.
9:30 AM	15 mn	Advantages of retrodeforming trench logs	McCalpin J.
9:45 AM	15 mn	3D paleoseismic trenching combined with 3D geophysics	Stepancikova P.
10:00 AM			
10:15 AM	60 mn	Coffee Break and <b>POSTERS</b>	
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11:00 AM	15 mn	3D geological model of the northeastern part of the Cevennes Fault System (CFS) (France)	Thomasset C.
11:15 AM	15 mn	Effects of sampling biases in extracting throw measurements along complex fault geometries from seismic reflection datasets	Andrews B.
11:30 AM	15 mn	Factors Affecting Deposition of Turbidite-Homogenite Units in Kumburgaz Basin, Sea of Marmara	Henri P.
11:45 AM	15 mn	Unveiling the Upper Quaternary earthquake history on a large submarine strike-slip fault: The Yusuf Fault System (Alboran Sea)	Perea Manera H.
12:00 PM	15 mn	The IPOC Creepemter Array in Northern Chile: Potential for a future natural fault observatory	Victor P.
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Session "Contributions to seismic hazard analysis"			
2:00 PM	15 mn	Collisional (Indenter) Tectonics of the Santa Ana Mountains and the Southern Los Angeles Basin, Orange County, California	Gath E.
2:15 PM	15 mn	The Tien Shan Active Fault Database; a new collaborative compilation for multi-use purposes	King T.
2:30 PM	15 mn	Characteristics of secondary (distributed) ruptures of normal and reverse surface faulting earthquakes: implications for fault displacement hazard analysis	Boncio P.
2:45 PM	15 mn	Recurrence period of large earthquakes at the western Alps-Mediteranean sea junction : from geological observations and modeling of the seismicity rate	Larroque C.
3:00 PM	15 mn	Speleoseismology as a tool to validate and constrain seismic hazard models: examples from Central and Southern Apennines in Italy.	Pace B.
3:15 PM	15 mn	Probabilistic assessment of the seismic source of subaqueous mass transport deposits, with application to Aysén Fjord, southern Chile	Vanneste K.
3:30 PM	15 mn	Why do seismic hazard maps overpredict historically observed shaking?	Gallahue M.
3:45 PM	15 mn	Outreach on Earthquake Geology as a tool to increase social seismic awareness	Ortuño M.
4:00 PM			
4:15 PM	60 mn	Coffee Break and <b>POSTERS</b>	
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5:15 PM	45 mn	POSTERS	
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6:00 PM	30 mn	Le Teil Earthquake	Ritz J-F & Baize S.
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### **POSTER Flash Presentations #6**

Campos Corina	Identification and measurement of the co-seismic fault offset along the North Anatolian Fault in the Central Basin through the co-seismic sedimentary episodes

Damon Adrien Impact of far-field Western Europe GIA on potential fault reactivation in the intraplate Paris Basin

Delogkos Efstratios Impact of variable fault geometries and slip rates on earthquake catalogues from physics-based simulators for the Cape Egmont Fault, New Zealand

Le Roux-Mallouf Romain Magnitude 9 along the Himalayan arc during the medieval period?

Manchuel Kevin Characterization of active faults in intraplate domains: benefits from the use of multi-scale seismic reflection data

Ramel Fabien Fault-based seismic hazard assessment for the city of Guadalajara, Central Mexico