

Scientific Programme



8th International Symposium on Andean Geodynamics (ISAG)

Quito, September 24-26th, 2019

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Raspberry Shake



The symposium at a glance

September 24 th	September 25 th	September 26 th
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Salon Cipreses (I)

8h00-8h30	Opening ceremony		
8h30-8h45 8h45-9h00 9h00-9h15 9h15-9h30 9h30-9h45 9h45-10h00	Plenary session	Plenary session	Plenary session
10h00-10h30	Coffee-break	Coffee-break	Coffee-break
10h30-11h15	Keynote: V.A. Ramos	Keynote: P. Molnar	Keynote: S. Mahlburg Kay
11h15-11h30 11h30-11h45 11h45-12h00 12h00-12h15	Plenary session	Plenary session	Plenary session
12h15-14h00	Lunch	Lunch	Lunch

September 24 th	September 25 th	September 26 th
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Salon Cipreses (I)

14h00-14h15 14h15-14h30 14h30-14h45 14h45-15h00 15h00-15h15 15h15-15h30	Active Tectonics & Deformation I	Keynote: E. Calais Tectonics & Basins I	Magmatism
15h30-16h00	Coffee-break	Coffee-break	Coffee-break
16h00-16h15 16h15-16h30 16h30-16h45 16h45-17h00	Active Tectonics & Deformation II	Tectonics & Basins II	Tectonics & Basins III
17h00-18h30	Poster session	Poster session	Poster session
18h30-19h00			Closing ceremony

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Salon Los Alamos (II)

14h00-14h15 14h15-14h30 14h30-14h45 14h45-15h00 15h00-15h15 15h15-15h30	Andean structure	Keynote: E. Calais Volcanology II	Seismology I
15h30-16h00	Coffee-break	Coffee-break	Coffee-break
16h00-16h15 16h15-16h30 16h30-16h45 16h45-17h00	Volcanology I	Volcanology III	Seismology II
17h00-18h30	Poster session	Poster session	Poster session

September 24th

08h00-08h30 Opening ceremony

Salon Cipreses (I): Plenary session

Conveners: J.-L. Le Pennec (IRD, LMV) and S. Hidalgo (IG-EPN)

- 08h30-08h45 **L. Audin et al.** Ten years of multidisciplinary approaches to unveil the crustal active tectonics in Ecuador
- 08h45-09h00 **A. Alvarado et al.** Características de la deformación cortical en el Ecuador
- 09h00-09h15 **F.A. Audemard and H. Mora Páez.** Net northeast slip of the North Andes Sliver (NAS) along the Eastern Frontal Fault System (EFFS), northwestern South America (NW SA)
- 09h15-09h30 **S. Beck et al.** A tale of two modern flat slabs along the South America Convergent Margin
- 09h30-09h45 **B. Potin et al.** Tomography of Chile
- 09h45-10h00 **L. Giambiagi et al.** Contemporary stress field, crustal deformation, exhumation and sedimentation during the building of the Central Andes over the last 20 my: Advances in the Central Andean Stress Field Evolution Project
- 10h00-10h30 Coffee break
- 10h30-11h15 **Keynote. V.A. Ramos.** Fifty years of Plate Tectonics in the Andes: Past challenges and future perspectives
- 11h15-11h30 **R. Spikings et al.** The Permo-Triassic history of magmatic rocks of the Northern Andes (Colombia and Ecuador): supercontinent assembly and disassembly
- 11h30-11h45 **A. Cardona et al.** Clues on the Cenozoic orogenic growth of Southermost Colombian Andes
- 11h45-12h00 **G. Bayona et al.** Changes in relative motion between western oceanic plates and the NW corner of South-America: cases of Middle Jurassic and Middle Eocene
- 12h00-12h15 **S. León et al.** Late Cenozoic chronology and tectonic evolution of the northern Colombian forearc basin: Insights from a multidisciplinary approach
- 12h15-14h00 Lunch

Thematic sessions

Salon Cipreses (I) : Active tectonics and deformation I

Conveners: L. Audin (IRD) and C. Benavente (INGEMMET)

- 14h00-14h15 **S. Baize et al.** New data on active tectonics and earthquake geology of the Pallatanga Fault, Central Andes of Ecuador
- 14h15-14h30 **L. Astudillo et al.** Holocene deformation along the Liquiñe – Ofqui Fault Zone, southern Chile: Field observations, tephrochronological correlations and geomorphic analysis
- 14h30-14h45 **J.-Y. Collot et al.** The Esmeraldas Canyon: a helpful marker of the Pliocene- Pleistocene tectonic deformation of the north Ecuador southwest Colombia convergent margin
- 14h45-15h00 **C. Martillo et al.** Deformation of the continental shelf of Ecuador during the Quaternary and consequences on coastal evolution
- 15h00-15h15 **M. Saillard et al.** MARACAS ANR project: MARine terraces along the northern Andean Coast as a proxy for seismic hazard Assessment
- 15h15-15h30 **F. Michaud et al.** Formation of a giant honeycomb seafloor morphology on the Carnegie ridge: potential geodynamic significance
- 15h30-16h00 Coffee break

Salon Cipreses (I): Active tectonics and deformation II

Conveners: L. Audin (IRD) and C. Benavente (INGEMMET)

- 16h00-16h15 **J.C. Villegas-Lanza and J.M. Nocquet.** Crustal deformation in northern Peru Andes derived from GPS measurements
- 16h15-16h30 **F. Delgado et al.** What are the main factors that trigger the giant- landslides in the Peruvian western Andes? The Aricota giant- landslide case study
- 16h30-16h45 **C. Sue et al.** Exhumation of the Fitz Roy Granite: How Efficient are the Mantle and Glaciations Processes?
- 16h45-17h00 **X. Robert et al.** Evidence for a great Mw>7 Pre-Hispanic (AD 1300-1400) Crustal Earthquake in the Forearc of Peru
- 17h00-18h30 Poster session

Salon Los Alamos (II): Andean structure imaged by geophysical studies

Conveners: M. Ruiz (IG-EPN) and M. Assumpção (U. Sao Paulo)

- 14h00-14h15 **M. Bianchi et al.** Effect of the Cold Nazca Slab on the Depth of the 660-km Discontinuity in South America
- 14h15-14h30 **E. Rodriguez et al.** Mantle Dynamics of the Andean Subduction Zone from Teleseismic S-Wave Tomography
- 14h30-14h45 **K. Ramírez et al.** Development of a new crustal thickness map of Venezuela based on seismological and gravimetric data
- 14h45-15h00 **T. Habel et al.** Unraveling the contribution of the west mountain front to Andean mountain-building in North Chile (20°S)
- 15h00-15h15 **V. Sallares et al.** The complexity of the NE Ecuador subduction megathrust system revealed by joint 3D inversion of refraction and inter- plate reflection travel-times
- 15h15-15h30 **B. Valette et al.** Geometry of Moho, crustal seismicity and

volcanic reservoir beneath Ecuador

15h30-16h00 Coffee break

Salon Los Alamos (II): Volcanology I

Conveners: *P. Samaniego (IRD, LMV) and S. Hidalgo (IG-EPN)*

- 16h00-16h15 **B. Bernard and D. Andrade.** Large volcanic debris avalanches in Ecuador
- 16h15-16h30 **J. Mariño et al.** Successive destabilization of a dome complex constructed on an extinct, hydrothermally altered volcano: The Tutupaca Volcano case study (Southern Perú)
- 16h30-16h45 **J.L. Le Pennec et al.** Identification of a major blast layer resolves debates on the source of avalanche breccias at Imbabura- Cubilche volcanoes, Ecuador
- 16h45-17h00 **M. Rivera et al.** The eruptive chronology of the Yucamane-Calientes compound volcano: a potentially active edifice of the Central Andes (Southern Peru)
- 17h00-18h30 Poster session

September 25th

Salon Cipreses (I): Plenary session

Conveners: *S. Carretier (IRD) and R. Riquelme (U. Católica del Norte)*

- 08h30-08h45 **A. Folguera et al.** Review and update about the late Triassic to Jurassic tectonics through the transition zone between the southern Central and Patagonian Andes
- 08h45-09h00 **F. Bechis et al.** Tectonic evolution of the North Patagonian Andes, from the exhumed crystalline rocks to the foreland basin
- 09h00-09h15 **L. Fennell et al.** Eocene to modern topographic evolution of an Andean retroarc foreland basin (35°S) from stable isotope paleoaltimetry: implications for tectonic and geodynamic models
- 09h15-09h30 **L. Sagripanti et al.** On the occurrence of Quaternary upper-plate deformation in the Southern Central Andes (36°- 38°S): interaction between mantle dynamics and tectonics?
- 09h30-09h45 **L. Fernández Paz et al.** Variable magmatic features of Oligocene-early Miocene Patagonian magmatism as result of subduction-induced mantle dynamics
- 09h45-10h00 **F. García et al.** Current crustal deformation in the Southern Andes from GPS: Active tectonics and volcanism associated to the seismic cycle
- 10h00-10h30 Coffee break
- 10h30-11h15 **Keynote: P. Molnar.** Crustal shortening and removal of mantle lithosphere in the geodynamics of the Andes

- 11h15-11h30 **J. Suriano et al.** Cenozoic synorogenic deposits in the Southern Central Andes: a key to understanding the causes and consequences of orogenic building
- 11h30-11h45 **D. Carrizo and J. Fuentes.** The role of the Interplay between deep and shallow crustal structures in the metallogenic architecture of Central Andes: renewing the paradigm
- 11h45-12h00 **P. Baby et al.** Thrust tectonics, crustal thickening, hydrocarbon and ore deposits in northern Central Andes
- 12h00-12h15 **S. Vaca et al.** Focal mechanism solutions using Waveform Inversion: A new catalogue for Ecuador
- 12h15-14h00 Lunch
- 14h00-14h45 **Keynote: E. Calais.** Seismic hazard and risk assessment based on the Haiti experience

Thematic sessions

Salon Cipreses (I): Tectonics & Basins I

Conveners: A. Folguera (U. Buenos Aires) and A. Egüez (EPN)

- 14h45-15h00 **M.J. Hernández Salazar et al.** Evolution of the Ecuadorian shelf fore-arc basins during the Neogene
- 15h00-15h15 **J.N. Proust et al.** Importance of seamounts subduction on frontal erosion of active margins. Example of the large submarine landslides of the Ayampe region of the Ecuadorian margin
- 15h15-15h30 **C. Witt et al.** Evolution of the Northern Andes Cenozoic magmatic arc as recorded in the forearc detrital record
- 15h30-16h00 Coffee break

Salon Cipreses (I): Tectonics & Basins II

Conveners: A. Folguera (U. Buenos Aires) and A. Egüez (EPN)

- 16h00-16h15 **A. Encinas et al.** Tectonosedimentary evolution of the Coastal Cordillera of south-central Chile during the Neogene
- 16h15-16h30 **M.C. Genge et al.** Meso-Cenozoic exhumation of Patagonia between latitudes 40 and 45 °S constrained by low-temperature thermochronometry
- 16h30-16h45 **B. Aguirre Urreta et al.** The Neuquén Basin of west-central Argentina: an exceptional Andean setting in Mesozoic times
- 16h45-17h00 **M. Lupi et al.** Crustal Structure and tectonic deformation of the Southern Central Andes between 33°S and 38°S
- 17h00-18h30 Poster session

Salon Los Alamos (II): Volcanology II

Conveners: B. Bernard (IG-EPN) and M. Rivera (INGEMMET)

- 14h45-15h00 **M.C. Ruiz et al.** Changes in anisotropy directions at volcanoes in the Ecuadorean Andes
- 15h00-15h15 **P. Ramón et al.** Twenty years of the Tungurahua Volcano Observatory during the 1999-2016 eruptive period
- 15h15-15h30 **Piispa et al.** Paleo- and rock-magnetic record of the Imbabura volcanic units: Implications for the tectonomagmatic evolution of the volcano and for the Earth's magnetic field at equatorial latitudes
- 15h30-16h00 Coffee break

Salon Los Alamos (II): Volcanology III

Conveners: *B. Bernard (IG-EPN) and M. Rivera (INGEMMET)*

- 16h00-16h15 **J. Battaglia et al.** Autopsy of the January 2010 eruptive phase of Tungurahua volcano (Ecuador) through coupling of seismo-acoustic and SO₂ recordings with ash characteristics
- 16h15-16h30 **H.E. Gaunt et al.** The July 14th, 2013 vulcanian explosion at Tungurahua Volcano: Pre-explosive conduit conditions
- 16h30-16h45 **I. Molina et al.** Explosive activity of the Tungurahua volcano, Ecuador, inferred from acoustic and seismic waveforms analyses the temporal evolution of the source
- 16h45-17h00 **P.B. Palacios et al.** Seismo-acoustics of paroxysmal eruptions of Tungurahua volcano
- 17h00-18h30 Poster session

September 26th

Salon Cipreses (I): Plenary session

Conveners: *A. Alvarado (IG-EPN) and P. Charvis (IRD, Geoazur)*

- 08h30-08h45 **A. Egüez et al.** Potential mineral, zones and epochs involved in the metallogenic map of Ecuador
- 08h45-09h00 **R. Riquelme et al.** Geomorphological and climatic constraints on the supergene processes in the Atacama Desert
- 09h00-09h15 **V. Oliveros et al.** Reappraisal of the Andean subduction initiation: trenchward arc migration during the Rhaetian in the SW Gondwana Margin
- 09h15-09h30 **P. Samaniego et al.** The temporal evolution of the Ecuadorian volcanic arc during the last 1 Ma
- 09h30-09h45 **S. Hidalgo et al.** Evolution of the 2015 Cotopaxi eruption revealed by combined geochemical & seismic observations
- 09h45-10h00 **G. Monsalve et al.** Is there a Nazca flat-slab beneath Northern Colombia? compilation of seismological evidence
- 10h00-10h30 Coffee break
- 10h30-11h15 **Keynote: S. Mahlburg Kay.** Magmatic processes and

chemistry in the Late Cretaceous to Recent Andes

- 11h15-11h30 **H. Agurto-Detzel et al.** Ridge subduction and afterslip control aftershock distribution of the 2016 Mw 7.8 Ecuador earthquake
- 11h30-11h45 **P.A. Mothes et al.** Heterogeneous Post-Seismic Deformation 3 years after the 2016 Mw 7.8 Pedernales Earthquake, Ecuador
- 11h45-12h00 **J.-M. Nocquet et al.** Slow slip events along the Ecuador subduction zone: an overview
- 12h00-12h15 **A. Tassara et al.** Connecting megathrust earthquake cycle, crustal deformation and volcanism along the Southern Andes
- 12h15-14h00 Lunch

Thematic sessions

Salon Cipreses (I): Magmatism

Conveners : S. Hidalgo (IG-EPN) and P. Samaniego (IRD, LMV)

- 14h00-14h15 **S.B. Iannelli et al.** The passage of the Farallon-Aluk spreading ridge along the Andean margin
- 14h15-14h30 **M.I. Marín-Cerón et al.** Late northern Andean Cenozoic to recent magmatism: A geochronological, petrographical and geochemical review
- 14h30-14h45 **M.-A. Ancellin et al.** Insights in Ecuadorian magma sources: from whole-rock geographical trends to single mineral isotope compositions
- 14h45-15h00 **D.F. Narvaez et al.** Olivine-hosted melt inclusion compositions support subducting slab melting under Ecuadorian volcanoes
- 15h00-15h15 **D. Jaldín et al.** There was a tectonomagmatic cycle during the Miocene which controlled the volcanism and a local collapse of the western Puna (24.5°-26.5°S)?
- 15h15-15h30 **J. Bastias et al.** Triassic magmatism of Antarctic Peninsula and its implications for the southern Gondwanan margin: a revised tectonic evolution
- 15h30-16h00 Coffee break

Salon Cipreses (I): Tectonics & Basins III

Conveners: A. Folguera (U. Buenos Aires) and A. Egüez (EPN)

- 16h00-16h15 **G. Aguilar et al.** Quantifying valleys incision rates with low-temperature thermochronology in the flat slab subduction segment of the western Andes slope (29oS)
- 16h15-16h30 **C. Bustamante et al.** Permian to Jurassic record of subduction related extension and compression in the Central Cordillera of Colombia
- 16h30-16h45 **A. Lemgruber-Travy et al.** Maturity, hydrocarbon generation and migration in North Peruvian Forearc System – Insights from an unstructured petroleum system modelling
- 16h45-17h00 **J. Julve et al.** Role of thermo-mechanical regime in the

geometry of crustal detachment levels

17h00-18h30 Poster session

Salon Los Alamos (II): Seismology I

Conveners: J.-M. Nocquet (IRD, Geozur) and A. Meltzer (Lehigh University)

- 14h00-14h15 **M. Vallée et al.** Multiple seismological observations of the prompt elastogravity signals highlight their potential for earthquake monitoring
- 14h15-14h30 **B. Delouis et al.** Implementation of routine automated FMNEAR waveform inversion for focal mechanisms in Ecuador
- 14h30-14h45 **B. Marcaillou et al.** Does regional-scaled vigorous fluid fluxes reconcile thermal segmentation and interplate coupling variations at the Ecuadorian subduction zone?
- 14h45-15h00 **M. Regnier et al.** Seismic evidences for complex faulting through the Gulf of Guayaquil, Ecuador
- 15h00-15h15 **D.E. Portner et al.** A new, comprehensive model for the geometry of the Nazca slab down to 1,200 km depth derived from teleseismic P-wave tomography and earthquake data
- 15h15-15h30 **F. Courboux et al.** Are subduction earthquakes a threat for Quito, capital of Ecuador, located ~170 km from the coast?
- 15h30-16h00 Coffee break

Salon Los Alamos (II): Seismology II

Conveners: J.-M. Nocquet (IRD, Geozur) and A. Meltzer (Lehigh University)

- 16h00-16h15 **F. Rolandone et al.** 2.5 years of spatio-temporal postseismic deformation from GPS following the 2016 Mw 7.8 Pedernales earthquake
- 16h15-16h30 **A. Meltzer et al.** Structural Control on Seismicity and Slip Behavior: Insights from 3D Tomography of the 2016 Mw 7.8 Pedernales Ecuador Earthquake Sequence
- 16h30-16h45 **C. Chalumeau et al.** Repeating aftershocks of the 2016 Mw 7.8 Pedernales (Ecuador) earthquake highlight interactions between afterslip and seismicity
- 16h45-17h00 **S. León-Ríos et al.** 3D seismic tomography and seismotectonics of the Ecuadorian margin inferred from the 2016 Mw 7.8 Pedernales aftershock sequence
- 17h00-18h30 Poster session
- 18h30-19h00 Closing ceremony

Poster sessions

September 24th

Active tectonics and deformation

- 24-01 H. Mora-Páez and P. Mothes.** GNSS geodetic networks in Colombia and Ecuador: a tool to understand the North Western corner of South America
- 24-02 S. Lizarazo et al.** Three dimensional GPS velocities and strain rate distribution in Colombia
- 24-03 O. Guzmán et al.** Chronological and geomorphological evolution of the fluvial terraces in the South Andean flank of Venezuela Andes. Climate and tectonic implications
- 24-04 D. Saqui et al.** New data and updated interpretation of the Billecocha Fault System, using geomorphological and geophysical evidence, Imbabura Province, Ecuador
- 24-05 P. A. Espín Bedón et al.** Deformation monitoring from Synthetic Aperture Radar Interferometry (INSAR) Sentinel data in Quito, Ecuador
- 24-06 C. Campos et al.** Geomorphology of alluvial terraces along the Tena River in the Eastern Flank of the Andes of Ecuador
- 24-07 J. Guerra et al.** Geometry and kinematics of the shallow northern segment of the Quito Fault System
- 24-08 F. Gutiérrez et al.** New tectonic evidence of the 1955 Cotacachi earthquake (Mw 6)
- 24-09 A. Cisneros et al.** Subduction versus crustal tectonics: impact on southern Ecuadorian margin uplift -quantification of uplift rates and modelling of marine terraces
- 24-10 A. Combey et al.** Archaeoseismology in the Inka Sacred Valley and in the Cuzco region, an interdisciplinary approach for past seismic impacts characterization on Cultural Heritage as a new marker for paleoevents?
- 24-11 L. Rosell et al.** Active tectonics around the Cusco City, Perú: Record of earthquakes in the last 14,000 years, from paleoseismological data
- 24-12 E. Aguirre et al.** Active faulting, paleoseismology and seismic hazard in forearc of southern Peru: First evidence of a crustal earthquake in the 19th century
- 24-13 A. Palomino et al.** Structural geomorphology and paleoseismology in the Altiplano of Peru: First geological evidence of the 1950 earthquake
- 24-14 B. García et al.** Impact of a paleo-earthquake and debris flow in Pikillaqta collapse, Cusco-Perú
- 24-15 B. Gérard et al.** Differential exhumation driven by Tectonic processes in the Abancay deflection (Peruvian Andes)
- 24-16 A. Albornoz et al.** Structural model of the basement and its relationship with the Holocene activity of Antuco Volcano, Biobío Region, Chile
- 24-17 C. Peña and A. Tassara.** Structural model of the basement and its link with the volcanic activity of the Mocho-Choshuenco Volcanic Complex, Southern Andes, Chile
- 24-18 C. Cabello and A. Tassara.** Basement structure underneath the southern volcanic zone of the Andes: Linking tectonics and volcanism

- 24-19 J. Jacay.** Geological aspects of paleoseismicity and archeoseismology in the Rimac Valley, Lima-Perú
- 24-20 S. Perroud and G. De Pascale.** Preliminary remote mapping reveals recent strike-slip motion along the southern Liquiñe-Ofqui Fault, Chile
- 24-21 L. Jagoe.** Neotectonic and morphometric analysis of the Guañacos fold and thrust belt
- 24-22 A. Astort et al.** Domuyo deformation source from InSAR and Gravimetric data
- 24-23 A. Cabré et al.** Contribution of coherence-loss InSAR time series to map erosion in arid catchments of the Atacama Desert

Andean structure imaged by geophysical studies

- 24-24 L. Yegres.** 2-D modelling of the Crustal structure of Merida Andes - Venezuela, from wide angle seismic and gravity studies
- 24-25 J. Sánchez-Rojas et al.** Variations of the crustal structure of Merida Andes - Venezuela, observations from gravity data analysis and modeling
- 24-26 S. Araujo et al.** Seismic tomography of the continental wedge and geometry of Nazca slab beneath Ecuador
- 24-27 W. Ben Mansour et al.** Interaction between volcanisms inland and the spreading center: example of Galápagos archipelago
- 24-28 C. Condori et al.** Upper crustal velocity structure beneath Northern Peruvian Andes from ambient noise tomography
- 24-29 J. Assunção and V. Sacek.** Nazca plate buoyancy and mantle convection under the Pantanal Basin
- 24-30 C. Rivadeneyra-Vera and M. Bianchi.** A narrower belt of sub-Andean thin crust constrained by new measurements of crustal thickness in the central part of South America
- 24-31 D. Díaz et al.** Geophysical imaging of the Chilean subduction zone beneath the Antofagasta region
- 24-32 M. Muñoz.** The Pampean slab is not flat

Volcanology

- 24-33 J. Salgado et al.** New observations on the recent activity from Sumaco Volcano, based on geochronology, stratigraphy and geochemistry
- 24-34 S. Santamaria et al.** New groundmass K-Ar ages of Iliniza Volcano, Ecuador
- 24-35 M. Almeida et al.** New constraints on the geological and chronological evolution of the Cotacachi-Cuicocha Volcanic Complex (Ecuador)
- 24-36 V. Valverde et al.** Geology and petrogenesis of Pulumbura volcano (Western Cordillera, Ecuador)
- 24-37 E. Telenchana et al.** Lithological units of Chiles Volcano.
- 24-38 J.-L. Le Pennec et al.** The Incahuasi resurgent caldera (Ayacucho Province, Peru), a site of high-magnitude explosive eruptions in Miocene times
- 24-39 W.F. Navarrete et al.** The Cubilche Volcanic Complex, Imbabura province, Ecuador: a first investigation of its evolution and petrology
- 24-40 S.P. Solano et al.** Source and emplacement conditions of a directed blast deposit at Huarmi Imbabura volcano, Ecuador
- 24-41 N. Vizuite et al.** Geochronology, eruptive source parameters and dynamism of the "San Marcos" event at Nevado Cayambe Volcano, Ecuador

- 24-42 M. Córdova et al** Determining the volume of Pifo Pumice Layers, a major Plinian fall from Chacana Caldera – Ecuador
- 24-43 A. Guerrero et al.** Assessment of the tephra-fall effects and physical vulnerability of roofs in the city of Arequipa, Perú
- 24-44 J. Cuno et al.** The Sacarosa Tephra-fall Deposit Emplaced by a Plinian Eruption of Misti Volcano, Southern Peru at ≤ 33.7 ka
- 24-45 R. Parra.** Influence of the startup period from initial conditions in modeling the dispersion of volcanic ash in Ecuador
- 24-46 B. Bernard et al.** Dispersion of volcanic ash clouds in Ecuador: a 20 years perspective
- 24-47 E. Arapa et al.** Assessing physical vulnerability and modeling flash floods and debris flows in the City of Arequipa, Perú
- 24-48 E. Telenchana et al.** The new potential volcanic hazard map of Guagua Pichincha Volcano, third edition 2019
- 24-49 A. Proaño et al.** New hazard map of Atacazo-Ninahuilca Volcanic Complex, Ecuador
- 24-50 N. Sainlot et al.** Pb-Sr isotope temporal variations on juvenile ash samples from the last eruptive period of Tungurahua volcano (1999-2016)
- 24-51 D. Yaguana et al.** Morphological changes of the crater in the Tungurahua volcano, Ecuador, from 2002 to 2016: Implications for volcanic hazards
- 24-52 F.J. Vasconez et al.** Magma output rates of Pululahua, the largest Ecuadorian dome complex

September 25th

Tectonics & Basins

- 25-01 A. Piraquive et al.** Eocene post-orogenic emplacement of the Santa Marta Batholith by extrusion within an overthickened crust, Sierra Nevada de Santa Marta, Colombia
- 25-02 M.A. Bermúdez et al.** Deriving the complete history of eroded batholiths from magmatic cooling to exhumational cooling using multiple numerical models, Antioquia batholith in the Central Cordillera of Colombia case study
- 25-03 M.A. Bermúdez et al.** Differential exhumation along the southern termination of the Bucaramanga fault discriminated by detrital and quantitative thermochronology
- 25-04 F. Muñoz et al.** Velocity structure and ongoing tectonic deformation of the northern Middle Magdalena Valley, Colombia
- 25-05 J. Vanegas et al.** Cretaceous fringing arcs in the Northern Andes
- 25-06 D.S. Avellaneda Jiménez et al.** Early Cretaceous roll-back related metamorphism in the Northern Andes: Upper plate insights
- 25-07 D. Mejía et al.** Late Jurassic arc related metamorphism in the Northern Andes
- 25-08 A. Kammer.** Structural framework of a Northandean Cretaceous subduction cycle
- 25-09 E. Romero et al.** High-resolution sedimentology in the Cerbatana Conglomerate Unit (La Victoria Formation – Honda Group, La Venta, Colombia) from Digital Outcrop Models (DOMs)
- 25-10 E. Duarte et al.** Provenance of the Caballos Formation in the Upper

- Magdalena Valley and Putumayo basin, Colombia: climatic and tectonic implications
- 25-11 C. Bulois et al.** Active normal faulting along the compressional margin of the Santa Elena Peninsula region (Ecuador): inheritance processes of extensional settings related to active orogens
- 25-12 J. Enriquez et al.** Rigid basement translation in the hanging-wall block of the Jipijapa – La Rinconada fault system inferred from tectono- stratigraphic studies along the southwestern border of the Manabí Basin, Ecuador
- 25-13 E. Angulo and B. Beate.** Temperature Distribution and Zoning of the Geothermal Gradient in the Oriente Basin, Ecuador
- 25-14 S. Brichau et al.** First time-constraints on Ecuadorian Coastal Cordillera uplift: Geodynamic implications
- 25-15 A. Margirier et al.** New thermochronological constraints on the structural evolution of the Western Cordillera of the Ecuadorian Andes
- 25-16 M. Valarezo et al.** Quantifying relative rock uplift along the Ecuadorian coastal margin: an example on the use of high-resolution topographic data
- 25-17 E. Lezama et al.** Contractional deformation of the late Paleocene-middle Eocene foredeep and the initiation of an arc-trench system in Southwestern Ecuador
- 25-18 F. Guarderas et al.** Microstructures, deformation styles and tectonic history of the Cordillera Real of southern Ecuador
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