

Conference Programme



ANTIGUA, GUATEMALA

30 JANUARY – 6 FEBRUARY, 2026

Edited by:

Carla Gordillo

Omar Flores

Christoph Grützner

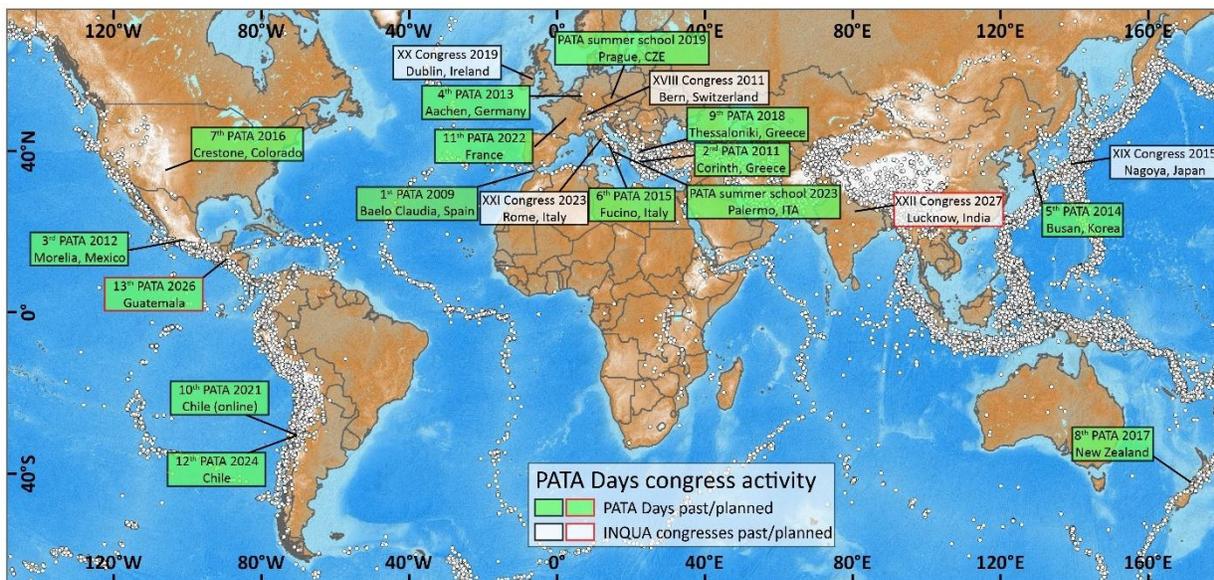
Tina M. Niemi

Jonathan Obrist-Farner

Dear participants,

On 4 February 1976, a magnitude 7.5 earthquake ruptured the Motagua Fault, which is part of the North American-Caribbean plate boundary in Guatemala. More than 23,000 people lost their lives and the devastation was huge. On the day 50 years later, we want to commemorate this disaster, and we want to talk about the lessons learned since then.

The International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology (PATA Days) brings together earthquake scientists from all continents to share latest research in earthquake geology and to discuss the developments in our discipline. A central part of the PATA Days are the joint field trips to active faults and to the sites where the actual research takes place. This idea has always been at the core of the PATA Days since their initiation in 2009. All past meeting abstracts and field trip guides can be downloaded at www.pata-days.org.



The PATA Days World Map.

The PATA Days are held under the umbrella of INQUA, the International Union for Quaternary Research and its TERPRO Commission (Terrestrial Processes, www.inqua.org). We are grateful for INQUA's continuous support for Early Career Researchers and Researchers from Developing Countries. But most importantly, we are grateful to our entire team for helping to organize this event.

We wish all participants a successful conference, interesting field trips, unforgettable moments, and fruitful discussions.

Your organizing committee:

Carla Gordillo
Omar Flores
Tina M. Niemi
Christoph Grützner
Jonathan Obrist-Farner
Hairo Castellanos
Bridget Garnier

Sunday, February 1, 2026—Welcome Party

- 19:00 - 21:00 Welcome Drinks and Snacks at Convento de Capuchinas

Monday, February 2, 2026 – DAY 1 of Talks and Posters

- 08:00 - 09:00 Registration (Coffee and pastries)
- 09:00 - 09:30 Opening of the Meeting
(Host: CNPAG Director Dr. Quiñonez, PATA meeting chair: Carlo Gordillo and/or Omar Flores, INGUAT: Instituto Guatemalteco de Turismo)
- 09:30 - 10:30 Talks

09:30-09:50		Lightning poster talks
09:50-10:10	Blisniuk et al.	Holocene slip rates on the Santa Cruz Mountains section reveals temporal and spatial consistency for Northern San Andreas Fault, CA
10:10-10:30	De Pascale	The Saga of Grindavík II: Mapping Concealed Active Graben Faults and Fissures in Iceland Using Electrical Resistivity

- 10:30 – 11:00 Convenience break
- 11:00 – 12:00 Talks

11:00-11:20	Livio et al.	Paleoseismicity of the Rieti Basin (Central Apennines, Italy): insights on faults interaction and multisegment ruptures
11:20-11:40	Gallego-Montoya et al.	Ground-Based Remote Sensing for Enhanced Paleoseismic Characterization of Trenches and Fault Scarps in Tectonically Complex Areas of Spain and Italy
11:40-12:00	Novak & Šebela	Postojna Cave: speleoseismic evidence of Late Quaternary earthquakes

- **12:00-13:30 Lunch at venue**
- 13:30-14:50 Talks

13:30-13:50	Mildon et al.	Using earthquake cycle models to explore seismic hazard in normal fault systems
13:50-14:10	Testa et al.	New paleoseismological Investigations in the framework of Level III Seismic Microzonation Studies in the L'Aquila Municipality (Central Italy)
14:10-14:30	Figueiredo et al.	Investigating evidences of Quaternary fault reactivation in Southwest Iberia, Portugal
14:30-14:50	Flašar et al.	Pleistocene-Holocene fault activity and offset valleys along the southern Mariánské Lázně Fault, Czechia, Central Europe

- 14:50-16:00 **Coffee Break** and Posters
- 16:00-17:20 Talks

16:00-16:20	Easton et al.	Active west-vergent Andean orogeny and potential for large earthquakes along the San Ramon Fault in Santiago, central Chile
16:20-16:40	González López et al.	Linking Surface Uplift and Upper-Plate Extension in the Forearc of Northern Chile: Insights from Quaternary active deformation in the Mejillones Peninsula
16:40-17:00	González-Alfaro et al.	Microseismicity and Quaternary deformation along the Puerto Aldea Fault, north-central Chile
17:00-17:20	Protti et al.	Searching for Hidden Local Faults Using a Dense Seismic Array

- **19:00 Evening opening party at the Antigua Cerveza Beer Garden**

Tuesday, February 3, 2026 – DAY 2 of Walking Tour / Talks and Posters

- 08:45 – 12:00 Walking Tour of Earthquake damage and Colonial Baroque seismic resistant design, start at Convento de Capuchinas
- **12:00-13:30 Lunch at venue**
- 13:30-15:10 Talks

13:30-13:50	Travers et al.	Complex Spatial-Temporal Rupture Patterns of Reverse Faults: The Dunstan Fault, Otago, New Zealand
13:50-14:10	Van Daele et al.	The subaerially exposed Iceberg Lake sediments: an exceptional record of historical subaqueous earthquake disturbance at the eastern edge of the Alaskan-Aleutian subduction zone
14:10-14:30	Pinzon et al.	Intraplate rupture pattern revealed by lacustrine deposits in northwestern Mongolia.
14:30-14:50	Rizza et al.	Trees that Witnessed Earthquakes in the Tien Shan mountains
14:50-15:10	Štěpančíková	Earthquakes and Their Perception in the Bible and Through History

- 15:10-16:00 **Coffee Break** and Posters
- 16:00-18:00 Talks

16:00-16:20	Mokhtari et al.	Monitoring slow aseismic slip along faults from InSAR time series: the case example of the Haiyuan fault in China
16:20-16:40	Cosenza Muralles et al.	Investigating continental-scale deformation and fault coupling in northern central America using Sentinel-1 InSAR
16:40-17:00	Adjiri et al.	Active tectonics and paleoseismology of Northern Algeria: an overview
17:00-17:20	Klinger et al.	Revisiting the Mw6.6 1968 Meckering, Australia, slip distribution using optical correlation
17:20-17:40	Novak & Šebela	Postojna Cave: speleoseismic evidence of Late Quaternary earthquakes
17:40-18:00	Humphrey et al.	Spatial and Temporal Clustering of Earthquakes in Central Aotearoa-New Zealand

- Participants responsible for dinner

Wednesday, February 4, 2026 – DAY 3 of Talks and Posters

- 8:00-10:00 – Invited speakers on the 1976 Earthquake

08:00-08:30	Bell	The 1976 earthquake in Antigua
08:30-09:00	Castellanos	Reconstruction and antiseismic architecture of monumental structures in Guatemala
09:00-09:30	Obrist Farner	Active tectonics of Guatemala – a review
09:30-10:00	Schwartz	What We Knew About the Motagua Fault Prior To, and Learned About It From the Geologic Reconnaissance Following, the 1976 Mw 7.5 Earthquake

- 10:00-10:30 **Coffee Break**
- 10:30-12:00 Talks on the Motagua Fault

10:30-10:50	McEnany et al.	Paleoseismic Evidence for Recurrent Large Earthquakes along the Motagua Fault, Guatemala: Implications for North American-Caribbean Plate Boundary Seismicity
10:50-11:10	Niemi et al.	Five Major Earthquakes from the Late Classic Maya Period to the 20 th Century on the Motagua Fault, Guatemala
11:10-11:30	Cosenza Muralles et al.	Strain accumulation along the Motagua Fault: a creeping segment in the context of the 1976 earthquake
11:30-11:50	Grützner et al.	The anatomy of a strike-slip plate boundary fault in a pull apart basin

- **11:50-13:30 Lunch at venue**
- 13:30-14:50 Talks

13:30-13:50	Francescone et al.	Fault Throw Evolution Across Multiple Time Scales in the Aremogna–Cinque Miglia Fault System (Italy)
13:50-14:10	Pizzi et al.	Paleoseismological constraints on fault linkage and segmentation in the Cinque Miglia–Aremogna fault system, central Italy
14:10-14:30	Shiman-Tov et al.	Clustered Multi-Segment Earthquakes and Long-Term Slip History of the Bet Kerem Fault System, Northern Israel
14:30-14:50	Newsham et al.	Rethinking the Alpine Fault's most recent earthquakes: Insights from tree rings and paleoseismic data

- 14:50-16:00 **Coffee Break** and Posters
- 16:00-18:00 Talks

16:00-16:20	González	Past Site Use Impacts the Pedogenic Age Estimation of Alluvial Fan Deposits in the Simi Valley Area of Southern California: A Cautionary Tale
16:20-16:40	Kim & Choi	Developing a fault segmentation model for seismic hazard assessment in intraplate regions: Insights from the Yangsan Fault, SE Korea
16:40-17:00	Ortega et al.	Deciphering Late Holocene Coastal Deformation and Tsunami Evidence from the Tongoy Wetlands
17:00-17:20	Woszczycka et al.	Stress modeling of the March 2022 seismic swarm in the Colca region, southern Peru: implications for dike intrusion and fault activity.
17:20-17:40	Kim et al.	Displacement and Slip Distribution Along Fossil and Active Faults: A Framework for Interpretation and Hazard Assessment
17:40-18:00	Pucci et al.	A strategy for refining post-LGM slip rates of fault systems in the Central Apennines, Italy

- Participants responsible for dinner

Thursday, February 5, 2026 – DAY 4 of Walking Tour / Talks and posters

- 08:00 – 12:00 – Walking Tour of the Convento e Iglesia de La Recolectión in Antigua starts from the Meeting venue, or meeting at 9:00 at the Convent: western end of 1a Calle Poniente, 14.5606°N, 90.7414°W
- **12:00-13:30 Lunch at venue**
- 13:30-14:50 Talks

13:30-13:50	Seitz	Are surface ruptures more complex than they should be? Examples that suggest triggered slip is to blame
13:50-14:10	Park et al.	Displacement patterns and segment interaction in the Ulsan Fault Zone, SE Korea: Insights into fault growth and activity
14:10-14:30	Gaidzik et al.	Interplay Between Tectonics and Surface Processes in the Landscape Evolution of the Colca Region, Peru
14:30-14:50	Spare	Tbd
14:50-15:10	Spare	Tbd

- 14:30-16:00 **Coffee Break** and Posters
- 16:00-17:00 PATA conclusion and INQUA TERPRO business meeting
- **17:00 Bus to coffee plantation – tour and dinner**

Friday, February 6 – Post-Meeting Field Tour and drop off in Antigua Guatemala

- 08:00 Departure from Tanque La Unión, 6a Calle Oriente/2a Avenida Sur, 14.5552°N 90.7311°W, <https://maps.app.goo.gl/uPNC8Whv8RicUcYw7>
- 16:00 – Return to Antigua

List of posters

Baltes et al.	Geomorphic expression and near-surface structure of a low-displacement intra-Alpine strike slip fault – a case study in Switzerland’s Engadine Line
Campillay et al.	Remote Geotechnical Characterization of Outcrops along Active Faults
Ebell et al.	A long-term slip rate and total offset estimate for the Motagua Fault, Guatemala
Franceschet et al.	Evidence of Upper Pleistocene-Holocene tectonic activity along the Longhere-Fadalto-Cadola line (eastern Southern Alps, NE Italy)
Greenough et al.	Remote Sensing-based Geohazard Assessment in Kambarata, Kyrgyzstan
Lopez et al.	Mapping Geomorphological Evidence of Motagua Fault Using LiDAR Data at La Laguna, Sanarate-Guatemala
Mildon et al.	Transient aseismic deformation across the Pisia-Skinos normal fault, Greece
Patricelli et al.	Holocene faulting along the Budoia-Aviano Thrust (eastern Southern Alps, NE-Italy): insights from a multidisciplinary and multiscale approach
Rosenfeld & Mota-Vidaurre	Surface Failure at Lake Amatitlán Attributed to Liquefaction of Deltaic Sediments During the 1976 Guatemalan Earthquake
Sagüí et al.	Stratigraphy of an Inverted Quaternary Pull-apart Basin along Motagua fault in Guatemala
Velázquez Bucio et al.	The September 19, 1985 Mexico Earthquake and its earthquake environmental effects: reevaluation of intensity using the ESI-07 scale