Series I - Online thematic lectures on Fault Recognition and Characterization

SESSION 1 | SEISMOTECTONICS OF THE WESTERN BALKANS AND LOCAL EARTHQUAKES

September 3, 2026 · 10:00 a.m.-1:00 p.m.

Chaired by Francesca R. Cinti

Lecture 1 - Regional Geology of the Western Balkans: Geodynamics, Tectonics, and Crustal Evolution
Matija Vukovski (Croatian Geological Survey - CGS)

Lecture 2 - General view of active geodetic deformation of the Western Balkans
Nicola D'Agostino (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 3 - The 2020 Petrinja earthquake (Croatia): seismological aspects
Josip Stipčević and Marijan Herak (University of Zagreb)

Lecture 4 - The 2020 Petrinja earthquake (Croatia): geological and geodetic deformation
Stéphane Baize (Autorité de sûreté nucléaire et de radioprotection) and Maxime Henriquet (Université Côte d'Azur)

Lecture 5 - The 1969 Banja Luka (Bosnia and Herzegovina)
Sanja Tucikešić (University of Banja Luka)

Lecture 6 - The 1979 Bar (Montenegro) earthquake
Milena Tomanović (Institute of Hydrometeorology and Seismology of Montenegro - IHMS)

SESSION 2 | EARTHQUAKE GEOLOGY. SEISMOGENIC FAULT RECOGNITION: TECTONIC GEOMORPHOLOGY, GEOPHYSICS, GEODESY

September 7, 2026 · 10:00 a.m.-1:00 p.m.

Chaired by Daniela Pantosti

Lecture 1 - Tectonic geomorphology of active faults
Petra Jamšek Rupnik (Geological Survey of Slovenia)

Lecture 2 - Off-fault tectonic landscape
Pierfrancesco Burrato (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 3 - Geophysical fault investigation
Lovro Rupar (Geological Survey of Slovenia)

Lecture 4 - Intro on GNSS for fault characterization
Nicola D'Agostino (National Institute of Geophysics and Volcanology, Italy - INGV)

SESSION 3 | EARTHQUAKE GEOLOGY. COSEISMIC EFFECTS ON NATURAL ENVIRONMENT, MAPPING, INVENTORIES

September 16, 2026 · 2:00–5:00 p.m.

Chaired by Petra Jamšek Rupnik

Lecture 1 - Overview of coseismic environmental effects
Daniela Pantosti (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 2 - Surface faulting around the world: The SURE worldwide database
Stéphane Baize (Autorité de sûreté nucléaire et de radioprotection) and
Francesca R. Cinti (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 3 - Liquefaction effects: phenomena and geotechnical investigation
Sara Amoroso (University of Chieti-Pescara - Unich)

Lecture 4 - Cases of post-earthquake geological surveys
Stefano Pucci (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 5 - Earthquake, fault and geodetic datasets in Western Balkans
Branko Kordić (Croatian Geological Survey - CGS) and
Sanja Tucikešić (University of Banja Luka)

SESSION 4 | SEISMOTECTONICS PARAMETERS TO CHARACTERIZE SEISMOGENIC FAULTS. FAULT BEHAVIOR IN TIME

September 23, 2026 · 2:00–5:00 p.m.

Chaired by Lovro Rupar

Lecture 1 - Fault parameters: meaning and calculation principles
Pierfrancesco Burrato (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 2 - Overview of Paleoseismology
Daniela Pantosti (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 3 - Geodetic approaches to estimates of fault slip and seismic hazard
Nicola D'Agostino (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 4 - Earthquake recurrence models, Seismic cycles, and Fault interactions
Bruno Pace (University of Chieti-Pescara - Unich)

Lecture 5 - Earthquake cycling simulator
Octavi Goméz Novell (University of Barcelona)

SESSION 5 | GROUND-BASED AND UAV-BASED PHOTOGRAMMETRY: A HIGH-RESOLUTION MAPPING TOOL FOR EARTHQUAKE GEOLOGY AND PALEOSEISMOLOGY

October 1, 2026 · 10:00 a.m.–1:00 p.m.

Chaired by Paolo Boncio

Session curated by
B. Kordić (Croatian Geological Survey - CGS) and
S. Pucci (National Institute of Geophysics and Volcanology, Italy - INGV)

Lecture 1 - Terrestrial Photogrammetry for Earthquake Geology

Lecture 2 - UAS Photogrammetry for Active Fault Mapping

Lecture 3 - Processing Workflow and Structure-from-Motion (SfM)

Lecture 4 - Photogrammetric Products and Quantitative Analysis for Earthquake Geology and Paleoseismology

SESSION 6 | PRACTICE TIME. QUESTION AND ANSWERS. HANDS-ON FIELD WORKSHOP INTRODUCTION

October 7, 2026 · 10:00 a.m.–1:00 p.m.

Chaired by Francesca R. Cinti

Lecture 1 - Practice time: exercises and examples of fault parameters calculation from geomorphic and paleoseismological trenching data
Pierfrancesco Burrato and Francesca R. Cinti
(National Institute of Geophysics and Volcanology, Italy - INGV)

Q&A time

Lecture 2 - Introduction to the Hands-on field Workshop on earthquake geology and paleoseismology
Marko Špelić, Josipa Maslač Soldo (Croatian Geological Survey - CGS) and Petra Jamšek Rupnik (Geological Survey of Slovenia - GeoZS)