



POLYTECHNICAL UNIVERSITY OF TIRANA
INSTITUTE OF GEOSCIENCES



SCIENTIFIC SYMPOSIUM PROGRAM

The November 26, 2019 Mw6.4 Durres, Albania Earthquake: Regional Seismicity, Regional Geodynamics and Seismic Hazard (ISDE-2023)

FIRST DAY MARCH 28

8:00 – 9:00

REGISTRATION

9:00 – 9:45

WELCOME SPEECHES

SESSION 1. REGIONAL SEISMICITY AND GEODYNAMICS

09:45 – 10:00

“Extreme earthquakes in Central Mediterranean. The 1743 Ionian strong event case study revised”

Spyros Pavlides, Ioannis Papaioannou

10:00 – 10:15

“Active tectonics of Western Balkans from GPS, earthquake Focal Mechanism Solutions, and Active Fault”

Nicola D’Agostino

10:15 – 10:30

“Geophysical investigations and Morphotectonic evidence of active tectonics in Western Albania”

Ismail Hoxha, Petraq Naço, Dashamir Gega, Rrapo Ormeni, Rezart Bozo, Luigi Piccardi, Pio Di Manna, Eutizio Vittori, Anna Maria Blumetti, Valerio Comerci

10:30 – 10:50

COFFE BREAK

10:50-11:05

“Different Kinds of Faults Make Different Kinds of Earthquakes: Case Studies of the World’s Largest Earthquakes”

Shyqyri Aliaj

11:05 – 11:20

“Near Surface Attenuation Kappa and Coda Q from Albania”

Jens Havskov, Edmond Dushi

11:20 – 11:35

“Straining of the Western Balkans Derived from the FLATSIM Service Products: Insights on the 2019 Durres Earthquake, Albania”

Marianne Métois, Cécile Lasserre, Cédric Twardzik, Aimine Meridi, Raphaël Grandin, Marie-Pierre Doin, Olivier Cavalie, Maxime Henriquet, Philippe Durand and the FLATSIM group.

SESSION 2. MW6.4 DURRES EARTHQUAKE: GENERAL OVERVIEW AND SEISMIC OBSERVATIONS

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| 14:00-14:15 | <i>“Durres M6.4 Earthquake Sequence: Short Review of Collected Data”</i> | Llambro Duni, Edmond Dushi, Agim Seranaj |
| 14:15-14:30 | <i>“The 26 November 2019 Durrës earthquake, Albania: co-seismic displacements and occurrence of slow slip events in the year following the earthquake (ISDE-2023)”</i> | Kristina Matak, François Jouanne, Edmond Dushi |
| 14:30-14:45 | <i>“Improvements in National Earthquake Monitoring, Data Processing and a Unified Seismic Archive after the November 26, 2019 (Mw6.4) Durres Earthquake in Albania”</i> | Edmond Dushi, Jens Havskov, Besian Rama, Ylber Muceku |
| 14:45-15:00 | <i>“Regional Seismic Monitoring, Durres Earthquake Experience and Results”</i> | Dragi Dojcinovski, Marta Stojmanovska, Igor Gjeorgjiev, Marina Poposka, Goran Chapragoski, Irena Gjorgjeska, Slavko Milesvki, Vladimir Koviloski |
| 15:00-15:15 | <i>“AI Based Analysis of the 2019 Mw6.4 Albania Aftershock Sequence: Seismicity and Local Earthquake Tomography”</i> | Andrea Rietbrock, Vincent van der Heiden, Bernd Schurr, Edmond Dushi, Jack Woollam, Damiano Koxhaj, Irena Dushi. |
| 15:15-15:35 | COFFE BREAK | |
| 15:35-15:50 | <i>“Implementation of continuous regional moment tensor inversion, after the November 26, 2019 Earthquake, in Albania”</i> | Besian Rama, Edmod Dushi, Damiano Koxhaj |
| 15:50-16:05 | <i>“Seismic Performance of Masonry Buildings During Earthquakes in Albania. Ishmi Case Study.”</i> | Diana Bardhi |
| 16:05-16:20 | <i>“Using Technology to Assess & Manage the Post-Earthquake Disaster Consequences”</i> | Agim Seranaj, Altin Piqani, Altin Seranaj, Edmond Lekaj |
| 16:20-16:35 | <i>“Seismic Performance of Ground Improvement- Feedback from Several Earthquakes Based on the Experience of the November 22, 2019 Durres Earthquake”</i> | Stéphane Brûlé |

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| 16:35-16:50 | <i>“Comparison of the Losses Estimated with Different Evaluations of the Regional Ground Shaking for the 2019 Durres Earthquake”</i> | Enes Veliu, Maria Camila Hoyoz Ramirez, Vitor Silva, and Helen Crowley |
| 16:50-17:05 | <i>“EARTHQUAKE-Proof Your Home (EPUH) as a Citizen Science Initiative”</i> | Mihail Garevski, Agim Seranaj. |

SECOND DAY MARCH 29

SESSION 3. REGIONAL SEISMIC HAZARD AND GROUND MOTION MODELS

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| 09:00-09:15 | <i>"The 2022 Update of the Albanian National Seismic Hazard Model"</i> | Neki Kuka, Llambro Duni, Anila Xhahysa, Rexhep Koci, Edmond Dushi |
| 09:15-09:30 | <i>"National Seismic Hazard Models: how new models from the U.S. could be considered in Albania hazard models"</i> | Mark Petersen, Neki Kuka, Llambro Duni, Arben Pitarka |
| 09:30-09:45 | <i>"The determination of earthquake location and magnitude from macroseismic data in Albania"</i> | Anila Xhahysa, Neki Kuka, Migena Ceyhan, Klajdi Qoshi, Edmond Dushi, Damiano Koxhaj |
| 09:45-10:00 | <i>"Seismic Monitoring and Hazard Assessments Through Scientific Collaboration"</i> | Andrea Chiang, Tuna Onur, Rengin Gök, Tea Godoladze, Anna Berezina, Kasey Aderhold, Katrin Hafner, Robert Woodward, Carlos Herrera, Hektor Babayan, Gurban Yetirmishli, Natalya Mikhailova, Beimbet Ashirov, Natalya Silacheva, Anatoly Ischuk, Sobit Negmatullaev |
| 10:00-10:15 | <i>"Comparison of Various Ground Motion Prediction Equations for the Mw6.4 2019 Durres, Albania Earthquake"</i> | Edlira Xhafaj, Kuo-Fong, Chung-Han Chan, Jia-Cian Gao |
| 10:15-10:35 | COFFE BREAK | |
| 10:35-10:50 | <i>"Attenuation of the Lithosphere in the Mediterranean Basin"</i> | Michael E. Pasyanos, Youssef Timoulali, Jabour Nacer |
| 10:50-11:05 | <i>"Unleashing New Knowledge on recent Earthquakes by Using DYRI"</i> | Mihail Garevski, Valentina Luckova, Marina Kordoska, Ognen Garevski. |
| 11:05-11:20 | <i>"Citizen's reports sentiment and topic analysis. The case of the November 26th, 2019, Albania earthquake"</i> | Diana Contreras, Enes Veliu, Laure Fallou, Rémy Bossu, Matthieu Landès |

SESSION 4. STRONG GROUND MOTION OBSERVATIONS AND PHYSICS-BASED MODELING

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| 14:00-14:15 | <i>"Strong Ground Motion Modeling of Crustal Earthquakes on a Supercomputing Platform: Application to Mw6.4 Durres Earthquake"</i> | Arben Pitarka, Llambro Duni |
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| 14:15-14:30 | <i>“High-Performance Computing Earthquake Ground Motion Simulations with SW4”</i> | Arthur Rodgers |
| 14:30-14:45 | <i>“Deterministic 0-5Hz Ground Motion Simulations of the Mw6.5 30 October 2016 Norcia, Italy Earthquake”</i> | Aybige Akinci, Arben Pitarka, Pasquale De Gori, and Mauro Buttinelli |
| 14:45-15:00 | <i>“Recent Principal Advances and Challenges in the Finite-Difference Modeling of Seismic Motions”</i> | Peter Moczo, Jozef Kristek, Jaroslav Valovcan, Martin Galis, and Miriam Kristekova |
| 15:00-15:20 | COFFE BREAK | |
| 15:20-15:35 | <i>“Source and Path Effects Analysis from a Series of SW4 Simulations of Mw 7.0 Earthquake Ground Motions”</i> | Ana C. Aguiar, Arben Pitarka, Artie Rodgers |
| 15:35-15:50 | <i>“Improving Ground Motion Models by Physics-based Numerical Simulations: The Case of Istanbul”</i> | Roberto Paoluci, Maria Infantino, MarCo Stupazzini. |
| 15:50-16:05 | <i>“BB-SPEEDset: A validated dataset of near-source earthquake ground motion from 3D physics-based numerical simulations”</i> | Chiara Smerzini, Roberto Paolucci, Manuela Vanini |
| 16:05-16:20 | <i>“Ice-quake Localization Using Full Wavefield Time Reverse Imaging”</i> | Kejdi Lleshi, L.Metvier, R. Brossier, and P. Roux |

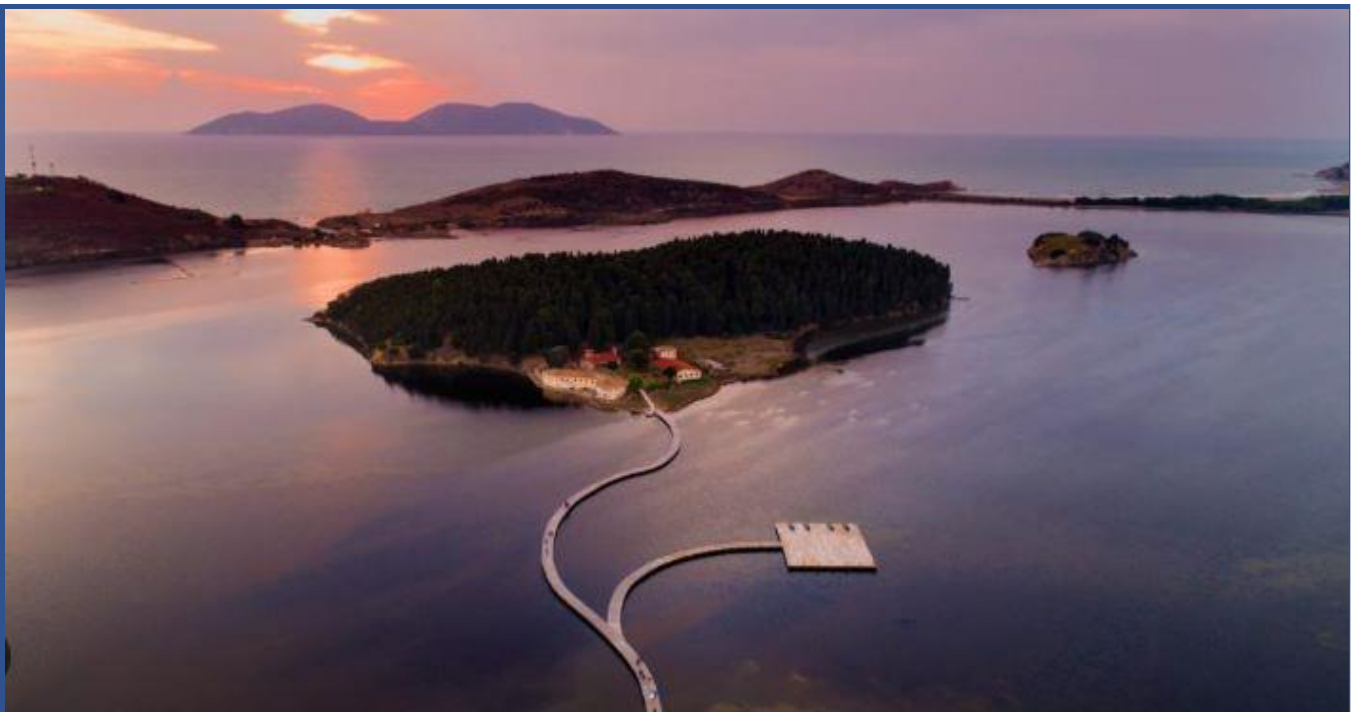
| LIST OF PRESENTERS | |
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| Prof. Spyros Pavlides | <i>Aristotle University of Thessaloniki, Greece</i> |
| Dr. Nicola D'Agostino | <i>Istituto Nazionale di Geofisica e Vulcanologia, Roma, Italy</i> |
| Prof. Ismail Hoxha Researcher | <i>Institute of Geosciences, Tirana, Albania</i> |
| Prof. Shyqyri Aliaj | <i>Academy of Sciences of Albania, Tirana, Albania</i> |
| Prof. Jens Havskov | <i>University of Bergen, Bergen, Norway</i> |
| Dr. Marianne Métois | <i>Université de Lyon, France</i> |
| Prof. Llambro Duni | <i>Resercher(Retired) Department of Seismology, Institute of Geosciences, Tirana, Albania</i> |
| Phd student Kristina | <i>Department of Seismology, Institute of Geosciences, Tirana, Albania</i> |
| Dr. Edmond Dushi | <i>Department of Seismology, Institute of Geosciences, Tirana, Albania</i> |
| Dr. Dragi Dojcinovski | <i>Researcher, UKIM-IZIIS, Skopje, N. Macedonia</i> |
| Prof. Andrea Rietbrock | <i>Karlsruhe Institute of Technology, Karlsruhe, Germany</i> |
| Dr. Besian Rama | <i>Department of Seismology, Institute of Geosciences, Tirana, Albania</i> |
| Dr. Diana Bardhi | <i>Dept. of Civil Engineering and Architecture, Metropolitan Tirana University</i> |
| Dr. Agim Seranaj | <i>Faculty of Civil Engineering, Polytechnic University of Tirana, Albania</i> |
| Dr. Stéphane Brule Researcher | <i>MENARD, Paris, France</i> |
| Dr. Enes Veliu | <i>Seismic Risk Engineer RECO Consulting, Albania</i> |
| Prof. Mihail Garevski | <i>ISOGKP, Skopje, North Macedonia</i> |
| Prof. Dr. Neki Kuka | <i>Researcher (Retired) IGEO, Tirana, Albania</i> |
| Prof. Mark Petersen | <i>U.S. Geological Survey, Geologic Hazards Science Center, Golden, CO, USA</i> |
| Dr. Anila Xhahysa | <i>Department of Seismology, Institute of Geosciences, Tirana, Albania</i> |

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| Dr. Andrea Chiang | <i>Lawrence Livermore National Laboratory, Livermore CA, USA</i> |
| Phd.c. Edlira Xhafaj | <i>Taiwan International Graduate Program (TIGP)–Earth System Science Program Taiwan</i> |
| Dr. Michael E. Pasyanos | <i>Lawrence Livermore National Laboratory (LLNL), Livermore, CA, UNITED STATES</i> |
| Dr. Diana Contreras | <i>Cardiff University, Cardiff, United Kingdom</i> |
| Dr. Arben Pitarka | <i>Lawrence Livermore National Laboratory, Livermore, California, U.S.A.</i> |
| Dr. Arthur Rodgers | <i>Lawrence Livermore National Laboratory, Livermore, CA 94551, USA</i> |
| Dr. Aybige Akinci | <i>Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy</i> |
| Prof. Peter Moczo | <i>Comenius University Bratislava, Bratislava, Slovakia</i> |
| Dr. Ana C. Aguiar | <i>Lawrence Livermore National Laboratory, Livermore, California</i> |
| Prof. Roberto Paoluci | <i>Politecnico di Milano, Italy</i> |
| Assoc. Prof. Chiara Smerzini | <i>Politecnico di Milano, Italy</i> |
| Phd.c. Kejdi Lleshi | <i>Universite de Lausanne, Switzerland</i> |

FIELD TRIP MARCH 30-31



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