Zafeiria Roumelioti

Assistant Professor of Seismology-Geophysics

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PERSONAL INFORMATION

Date of Birth	19 March, 1976
Place of Birth	Aigio, Achaia, Greece
Nationality	Greek

EDUCATION

2003	PhD in Seismology, Department of Geophysics, School of Geology, Aristotle University of Thessaloniki, Greece
1999	MSc in Geophysics, Department of Geophysics, School of Geology, Aristotle University of Thessaloniki, Greece
1997	Bachelor in Geology, School of Geology, Aristotle University of Thessaloniki, Greece

WORK EXPERIENCE

11/2019- :	Assistant Professor of Seismology-Geophysics, Department of Geology, University of Patras
02/2007-10/2019:	Research/Teaching Staff, Aristotle University of Thessaloniki
04/2006-01/2007:	Researcher in Seismology, Institute of Geodynamics, National Observatory of Athens
10/2005-03/2006:	Geologist, Prefecture of Chalkidiki, Northern Greece
01/2004-01/2006:	Scientific consultant of "Egnatia Odos S.A." on bridge instrumentation issues.
06/2003-06/2004:	Research Assistant, Institute of Engineering Seismology and Earthquake Engineering (ITSAK) of Greece.
06/2002-12/2002:	Visiting Research Scientist, Department of Geological and Atmospheric Sciences, Iowa State University, USA.
02/2000-10/2008:	Research Assistant, Department of Geophysics, Aristotle University of Thessaloniki.

MAIN RESEARCH TOPICS

- Simulation of strong ground motion using both deterministic (Empirical Green's Functions) and stochastic approaches with emphasis on the incorporation of the finite-source and directivity effects
- Seismic Hazard
- Geophysical Exploration
- Kinematic modeling of earthquake sources; Determination of the spatio-temporal characteristics of earthquake rupture by i) inversion of full waveforms at regional and/or teleseismic distances, geodetic data, strong ground motion records and surface offset data and ii) inversion of relative source time functions
- Variability of strong ground motion due to source and site effects

- Near-fault effects on strong ground motion
- Near real-time applications for the computation of earthquake source parameters (fast moment tensors) and shake maps for earthquakes in areas covered by sparse networks
- Moment tensor determination
- Study of non-linear site response during earthquakes
- Seismicity studies (relocation, determination of source parameters, seismotectonic implications)
- Strong motion databases
- Earthquake Early Warning

CITATIONS AND RESEARCH IMPACT METRICS

(As in November 29, 2019)

Scopus (https://www.scopus.com/)	Web of Science (http://apps.webofknowledge.com/)	Google Scholar (https://scholar.google.gr/)
Number of Citations		
541	492	967
h-index		
15	14	18

SELECTED (RECENT) PUBLICATIONS

- Hollender, F., **Z. Roumelioti**, E. Maufroy, P. Traversa and A. Mariscal (2019). Can we trust high-frequency content in strong-motion database signals? Impact of housing, coupling and installation depth of seismic sensors, *submitted*.

- **Roumelioti, Z.**, F. Hollender and Ph. Gueguen (2019). Rainfall-Induced Variation of Seismic Waves Velocity in Soil and Implications for Soil Response: what the ARGONET (Cephalonia, Greece) vertical array data reveal, *submitted*.

- Cushing, E. M., F. Hollender, D. Moiriat, C. Guyonnet-Benaize, N. Theodoulidis, E. Pons-Branchu, S. Sepulcre, P.-Y. Bard, C. Cornou, A. Dechamp, A. Mariscal and **Z. Roumelioti** (2020). Building a three dimensional model of the active Plio-Quaternary basin of Argostoli (Cephalonia Island, Greece): an integrated geophysical and geological approach, *in press*.

- Riga, E., F. Hollender, **Z. Roumelioti,** P.-Y. Bard and K. Pitilakis (2019). Assessing the applicability of deconvolution of borehole records for determining near-surface shear wave attenuation, *Bull. Seism. Soc. Am*, 109(2), 621-635.

- Giannaraki, G., I. Kassaras, **Roumelioti, Z.**, Kazantzidou-Firtinidou, D. and A. Ganas (2019). Deterministic seismic risk assessment in the city of Aigion (W. Corinth Gulf, Greece) and juxtaposition with real damage due to the 1995 Mw6.4 earthquake, *Bulletin of Earthquake Engineering*, 17(2), 603-634.

- Christou, A., N. Theodoulidis, A. Kiratzi and **Z. Roumelioti** (2019). Simulation of strong ground motion from the 20th July 2017, M6.6, Kos earthquake (2019), *Proc. of the 4th Panhellenic Conference of Earthquake Engineering and Engineering Seismology*, 5-7 September 2019, Athens (in Greek).

- Kiratzi, A., **Z. Roumelioti,** K. Makra, N. Klimis and A. Koskosidi (2018). Hybrid broadband seismic ground motions: application to the city of Edessa in northern Greece, 7th International Conference on Earthquake Geotechnical Engineering (VII ICEGE), 17-20 June 2019, Rome, *submitted*.

- **Roumelioti, Z.**, F. Hollender and Ph. Gueguen (2018). Shear wave velocity variations at the CORSSA (Central Greece) vertical array, *Proc. of the 16th European Conf. on Earthq. Eng. (16ECEE)*, 18-21 June 2018, Thessaloniki, Greece.

- Theodoulidis, N., F. Hollender, A. Mariscal, D. Moiriat, P.-Y. Bard, A. Konidaris, M. Cushing, K. Konstantinidou and **Z. Roumelioti** (2018). The ARGONET (Greece) Seismic Observatory: An

accelerometric vertical array and associated data, *Seismological Research Letters*, 89(4), 1555-1565, doi:10.1785/0220180042.
- Maufroy, E., E. Chaljub, N.P. Theodoulidis, **Z. Roumelioti**, F. Hollender, P.-Y. Bard, F. de Martin and L. Margerin (2017). Source-related variability of site response in the Mygdonian basin (Greece) from accelerometric recordings and 3-D numerical simulations, *Bull. Seism. Soc. Am.*, 107(2), 787-808.
- Ktenidou, O.-J., **Z. Roumelioti**, N. Abrahamson, F. Cotton, K. Pitilakis and F. Hollender (2017). Understanding single-station ground motion variability and uncertainty (sigma): lessons learnt from EUROSEISTEST, *Bull. Earth. Eng.* doi:10.1007/s10518-017-0098-6.
- **Roumelioti, Z.,** A. Kiratzi, B. Margaris and A. Chatzipetros (2017). Simulation of strong ground motion on near-fault rock outcrop for engineering purposes: the case of the city of Xanthi (northern Greece), *Bull. of Earthq. Eng* 15(1), 25-49.
- Aggarwal, S.K., P.K. Khan, S.P. Mohanty and **Z. Roumelioti** (2016). Moment tensors, state of stress and their relation to faulting processes in Gujarat, Western India, *Physics and Chemistry of the Earth*, A/B/C 95, 19-35.
- Pitilakis, K., S. Karapetrou, D. Bindi, M. Manakou, B. Petrovic, **Z. Roumelioti**, T. Boxberger and S. Parolai (2016). Structural monitoring and earthquake early warning systems for the AHEPA hospital in Thessaloniki, *Bulletin of Earthquake Engineering* 14(9), 2543-2563.
- Kiratzi A., **Roumelioti, Z.,** Chatzipetros A., and G. Papathanassiou (2014). Simulation of off-fault surface effects from historical earthquakes: the case of the city of Thessaloniki (Northern Greece), In the book "Engineering Geology for Society and Territory", Vol. 5 "Urban Geology, Sustainable Planning and Landscape Exploitation", Giorgio Lollino (Ed.,) 8643pp/ 8 volume-set ISBN 978-3-319-10303-7.