

<b>PERSONAL INFORMATION</b>	
<b>SURNAME</b>	ROUMELIOTI
<b>NAME</b>	ZAFEIRIA
<b>DATE OF BIRTH</b>	MARCH 19, 1976
<b>PLACE OF RESIDENCE</b>	PATRAS, GREECE
<b>e-mail</b>	zroumelioti@upatras.gr
<b>TEL.</b>	+302610997540; +306977918863

## **CURRENT POSITION**

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**11.2019 - 03.2020**      **Assistant Professor of Seismology and Geophysics**  
Department of Geology, University of Patras, Greece

## **PREVIOUS POSITIONS**

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**04.2012 - 10.2019**      **Research/Teaching Staff**  
Department of Civil Engineering, Aristotle University of Thessaloniki, Greece

**02.2007 - 03.2012**      **Research/Teaching Staff**  
Department of Geology, Aristotle University of Thessaloniki, Greece

**04.2006 - 01.2007**      **Researcher in Seismology**  
Institute of Geodynamics, National Observatory of Athens, Greece

**11.2005 - 03.2006**      **Geologist**  
Prefecture of Chalkidiki, Greece

**01.2004 – 12.2006**      **Post-Doctoral Appointee**  
Department of Geology, Aristotle University of Thessaloniki

**06.2002 - 12.2002**      **Visiting Research Scientist**  
Department of Geological and Atmospheric Sciences, Iowa State University

## **EDUCATION**

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**11.1999 - 07.2003**      Department of Geology, Aristotle University of Thessaloniki, Greece, "*Contribution to the simulation of strong ground motion in the Aegean area with emphasis on the near field*" PhD in Seismology

**10.1997 - 11.001999**      Department of Geology, Aristotle University of Thessaloniki, Greece, "*Estimation of source parameters and simulation of strong ground motion in Western Greece*", MSc in Geophysics

**09.1993 – 07.1997**      Department of Geology, Aristotle University of Thessaloniki, Greece, Bachelor (4 years duration) in Geology

## PUBLICATIONS

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### *Publications in Peer Reviewed Journals (out of a total of 38)*

- S-wave spectral analysis of the 1995 Kozani-Grevena (NW Greece) aftershock sequence, Roumelioti, Z., A. Kiratzi, N. Theodoulidis, and Ch. Papaioannou, *Journal of Seismology*, 6(2), 219-236, 2002, [10.1023/A:1015614703728](https://doi.org/10.1023/A:1015614703728)
- Stochastic simulation of strong motion records from the 15 April 1979 (M 7.1) Montenegro (Yugoslavia) earthquake, Roumelioti, Z. and A. Kiratzi, *Bull. Seism. Soc. Am.* 92, 1095-1101, 2002, [10.1785/0120010197](https://doi.org/10.1785/0120010197)
- Rupture directivity during the September 7, 1999 (M<sub>w</sub> 5.9) Athens (Greece) earthquake obtained from strong-motion records, Roumelioti, Z., A. Kiratzi, N. Theodoulidis, I. Kalogeras, and G. Stavrakakis, *Pure and Appl. Geophys.*, 160(12), 2301-2318, 2003, [10.1007/s00024-003-2395-z](https://doi.org/10.1007/s00024-003-2395-z)
- Slip distribution of the September 7, 1999 Athens earthquake inferred from an empirical Green's function study, Roumelioti, Z., D. Dreger, A. Kiratzi, and N. Theodoulidis, *Bull. Seism. Soc. Am.*, 93(2), 775-782, 2003, [10.1785/0120020053](https://doi.org/10.1785/0120020053)
- Stochastic finite-fault modeling of ground motions from the 1999 Chi-Chi, Taiwan, earthquake: Application to rock and soil sites with implications for nonlinear site response, Roumelioti, Z. and I. Beresnev, *Bull. Seism. Soc. Am.*, 93(4), 1691-1702, 2003, [10.1785/0120020218](https://doi.org/10.1785/0120020218)
- Relocation of the July 26, 2001 Skyros island (Greece) earthquake sequence using the double-difference technique, Roumelioti, Z., A. Kiratzi, and N. Melis, *Physics of the Earth and Planetary Interior*, 138, 231-239, 2003, [10.1016/S0031-9201\(03\)00138-9](https://doi.org/10.1016/S0031-9201(03)00138-9)
- Determination of S-wave velocity structure using microtremors and spac method applied in Thessaloniki (Greece), Apostolidis, P., D. Raptakis, Z. Roumelioti, and K. Pitilakis, *Soil Dynamics and Earthquake Engineering*, 24, 49-67, 2004, [10.1016/j.soildyn.2003.09.001](https://doi.org/10.1016/j.soildyn.2003.09.001)
- The source process of the 26 July, 2001 Skyros Island (Greece) earthquake, Roumelioti, Z., A. Kiratzi, and D. Dreger, *Geophys. J. Int.*, 156(3), 541-548, 2004, [10.1111/j.1365-246X.2004.02124.x](https://doi.org/10.1111/j.1365-246X.2004.02124.x)
- A study of the 2 December 2002 (M5.5) Vartholomio (western Peloponnese, Greece) earthquake and of its largest aftershocks, Roumelioti, Z., Ch. Benetatos, A. Kiratzi, G. Stavrakakis and N. Melis, *Tectonophysics* 387, 65-79, 2004, [10.1016/j.tecto.2004.06.008](https://doi.org/10.1016/j.tecto.2004.06.008)
- Stochastic strong ground motion simulation of the 7 September 1999 Athens (Greece) earthquake, Roumelioti, Z., A. Kiratzi and N. Theodoulidis, *Bull. Seism. Soc. Am.*, 94(3), 1036-1052, 2004, [10.1785/0120030219](https://doi.org/10.1785/0120030219)
- The 14 August 2003 Lefkada Island (Greece) earthquake: focal mechanisms of the mainshock and of the aftershock sequence, Benetatos, Ch., A. Kiratzi, Z. Roumelioti, G. Stavrakakis, G. Drakatos and I. Latoussakis, *Journal of Seismology* 9, 171-190, 2005, [10.1007/s10950-005-7092-1](https://doi.org/10.1007/s10950-005-7092-1)
- A source study of the 6 July 2003 (M<sub>w</sub> 5.7) earthquake sequence in the Gulf of Saros (Northern Aegean Sea): seismological evidence for the western continuation of the Ganos fault, Karabulut, H., Z. Roumelioti, Ch. Benetatos, A. Kömec Mutlu, S. Özalaybey, M. Aktar and A. Kiratzi, *Tectonophysics* 412, 195-216, 2005, [10.1016/j.tecto.2005.09.009](https://doi.org/10.1016/j.tecto.2005.09.009)
- Retrospective prediction of macroseismic intensities using strong ground motion simulation: the case of the 1978 Thessaloniki (Greece) earthquake (M6.5), Theodoulidis, N., Z. Roumelioti, A. Panou, A. Savvaidis, A. Kiratzi, V. Grigoriadis, P. Dimitriou and T. Chatzigogos, *Bulletin of Earthquake Engineering* 4(2), 101-130, 2006, [10.1007/s10518-006-9001-6](https://doi.org/10.1007/s10518-006-9001-6)
- The April 2007 earthquake swarm near Lake Trichonis and implications for active tectonics in western Greece, Kiratzi, A., E. Sokos, A. Ganas, A. Tselentis, Ch. Benetatos, Z. Roumelioti, A. Serpetzidaki, G. Andriopoulos, O. Galanis and P. Petrou, *Tectonophysics*, 452, 51-65, 2008, [10.1016/j.tecto.2008.02.009](https://doi.org/10.1016/j.tecto.2008.02.009)
- The 14 February 2008 earthquake (M6.7) sequence offshore south Peloponnese (Greece): Source models of the three strongest events, Roumelioti, Z., Ch. Benetatos and A. Kiratzi, *Tectonophysics* 471(3-4), 51-65, 2009, [10.1016/j.tecto.2020.228353](https://doi.org/10.1016/j.tecto.2020.228353)

- The instability of the  $M_w$  and  $M_L$  comparison for earthquakes in Greece for the period 1969 to 2007, Roumelioti, Z., A. Kiratzi and Ch. Benetatos, *Journal of Seismology*, 14(2), 309-337, 2010, [10.1007/s10950-009-9167-x](https://doi.org/10.1007/s10950-009-9167-x)
- The contribution of geophysical techniques to site characterization and liquefaction risk assessment: Case study of Nafplion city, Greece, Karastathis, V., P. Karmis, T. Novikova, Z. Roumelioti, E. Gerolymatou, D. Papanastassiou, S. Liakopoulos, P. Tsombos and G. Papadopoulos, *Journal of Applied Geophysics*, 72(3), 194-211, 2010, [10.1016/j.jappgeo.2010.09.003](https://doi.org/10.1016/j.jappgeo.2010.09.003)
- Prediction and evaluation of nonlinear site response with potentially liquefiable layers in the area of Nafplion (Peloponnesus, Greece) for a repeat of historical earthquakes, Karastathis, V. V., G. A. Papadopoulos, T. Novikova, Z. Roumelioti, P. Karmis and P. Tsombos, *Natural Hazards and Earth System Sciences*, 10, 2281-2304, 2010, [10.5194/nhess-10-2281-2010](https://doi.org/10.5194/nhess-10-2281-2010)
- Static stress transfer from the 20 May 2012, M6.1 Emilia Romagna (Northern Italy) earthquake using a co-seismic slip distribution model, Ganas, A., Z. Roumelioti and K. Chousianitis, *Annals of Geophysics*, 55(4), 2012, [10.4401/ag-6176](https://doi.org/10.4401/ag-6176)
- The EUROSEISTEST strong motion database and web portal, Pitilakis, K., Z. Roumelioti, D. Raptakis, M. Manakou, K. Liakakis, A. Anastasiadis and D. Pitilakis, *Seism. Res. Lett.*, 84(5), 796-804, 2013, [10.1785/O220130030](https://doi.org/10.1785/O220130030)
- The Lemnos 8 January 2013 ( $M_w=5.7$ ) earthquake: fault slip, aftershock properties and updated transfer analysis in North Aegean Sea, Ganas, A., Z. Roumelioti, V. Karastathis, K. Chousianitis, A. Moshou and E. Mouzakiotis, *Journal of Seismology*, 18(3), 433-455, 2014, [10.1007/s10950-014-9418-3](https://doi.org/10.1007/s10950-014-9418-3)
- Simulation of off-fault surface effects from historical earthquakes: the case of the city of Thessaloniki (Northern Greece), Engineering Geology for Society and Territory, Kiratzi A., Roumelioti, Z., Chatzipetros A., and G. Papathanassiou, (Eds) Giorgio Lollino et al., *Engineering Geology for Society and Territory, Urban Geology, Sustainable Planning and Landscape Exploitation*, 5, 957-963, 2015, [10.1007/978-3-319-09048-1\\_185](https://doi.org/10.1007/978-3-319-09048-1_185)
- Structural monitoring and earthquake early warning systems for the AHEPA hospital in Thessaloniki, *Bulletin of Earthquake Engineering*, Pitilakis, K., S. Karapetrou, D. Bindi, M. Manakou, B. Petrovic, Z. Roumelioti, T. Boxberger and S. Parolai, *Bulletin of Earthquake Engineering*, 2016, [10.1007/s10518-016-9916-5](https://doi.org/10.1007/s10518-016-9916-5)
- Moment tensors, state of stress and their relation to faulting processes in Gujarat, Western India, Aggarwal, S.K., P.K. Khan, S.P. Mohanty and Z. Roumelioti, *Physics and Chemistry of the Earth, A/B/C* 95, 19-35, 2016, [10.1016/j.pce.2016.01.004](https://doi.org/10.1016/j.pce.2016.01.004)
- Source-related variability of site response in the Mygdonian basin (Greece) from accelerometric recordings and 3-D numerical simulations, Maufroy, E., E. Chaljub, N. Theodoulidis, Z. Roumelioti, F. Hollender, P.-Y. Bard, F. de Martin and L. Margerin, *Bull. Seism. Soc. Am.* 107(2), 787-808, 2016, [10.1785/O120160107](https://doi.org/10.1785/O120160107)
- Simulation of strong ground motion on near-fault rock outcrop for engineering purposes: the case of the city of Xanthi (northern Greece), Roumelioti, Z., A. Kiratzi, B. Margaris and A. Chatzipetros, *Bull. Earthq. Eng.* 15(1), 25-49, 2015, [10.1007/s10518-016-9949-9](https://doi.org/10.1007/s10518-016-9949-9)
- Understanding single-station ground motion variability and uncertainty (sigma) – Lessons learnt from Euroseistest, Ktenidou, O.-J., Z., Roumelioti, N. Abrahamson, F. Cotton, K. Pitilakis and F. Hollender, *Bull. Earthq. Eng.* 16(6), 2311-2336, 2018, [10.1007/s10518-017-0098-6](https://doi.org/10.1007/s10518-017-0098-6)
- The ARGONET (Greece) Seismic Observatory: An accelerometric vertical array and associated data, Theodoulidis, N., F. Hollender, A. Mariscal, D. Moiriat, P.-Y. Bard, A. Konidakis, M. Cushing, K. Konstantinidou and Z. Roumelioti, *Seismological Research Letters*, 89(4), 1555-1565, 2018, <https://doi.org/10.1785/O220180042>
- Giannaraki, G., I. Kassaras, Roumelioti, Z., Kazantzidou-Firtinidou, D. and A. Ganas (2018). Deterministic seismic risk assessment in the city of Aigion (W. Corinth Gulf, Greece) and juxtaposition with real damage due to the 1995  $M_w6.4$  earthquake, *Bulletin of Earthquake Engineering*, <https://doi.org/10.1007/s10518-018-0464-z>

- Assessing the applicability of deconvolution of borehole records for determining near-surface shear wave attenuation, Riga, E., F. Hollender, Z. Roumelioti, P.-Y. Bard and K. Pitilakis, Bull. Seism. Soc. Am, 109(2), 621-635, 2018, [10.1785/0120180298](https://doi.org/10.1785/0120180298)
- Building a three dimensional model of the active Plio-Quaternary basin of Argostoli (Cephalonia Island, Greece): an integrated geophysical and geological approach, 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), Engineering Geology, 265, 105441, 2020, [10.1016/j.enggeo.2019.105441](https://doi.org/10.1016/j.enggeo.2019.105441)
- Can we trust high-frequency content in strong-motion database signals? Impact of housing, coupling and installation depth of seismic sensors, Hollender, F., Z. Roumelioti, E. Maufroy, P. Traversa and A. Mariscal, Seism. Res. Lett., 2020, [10.1785/0220190163](https://doi.org/10.1785/0220190163)
- Rainfall-Induced Variation of Seismic Waves Velocity in Soil and Implications for Soil Response: what the ARGONET (Cephalonia, Greece) vertical array data reveal, Roumelioti, Z., F. Hollender and Ph. Gueguen, Bull. Seism. Soc. Am., 110(2), 441-451, 2020, [10.1785/0120190183](https://doi.org/10.1785/0120190183)

*Selected Publications in Conference Proceedings (out of a total of 35)*

- Shear wave velocity variations at the CORSSA (Central Greece) vertical array, Roumelioti, Z., F. Hollender and Ph. Gueguen, Proc. of the 16<sup>th</sup> European Conf. on Earthq. Eng. (16ECEE), 18-21 June 2018, Thessaloniki, Greece, 2018.
- Near-surface shear wave attenuation by deconvolution of borehole records: a sensitivity analysis based on synthetic wavefields, Riga, E., F. Hollender, Z. Roumelioti, P.-Y. Bard and K. Pitilakis, Proc. of the 16<sup>th</sup> European Conf. on Earthq. Eng. (16ECEE), 18-21 June 2018, Thessaloniki, Greece, 2018.
- Respective advantages of surface and downhole reference stations for site effect studies: lessons learnt from the Argonet (Cephalonia Island, Greece) and Cadarache (Provence, France) vertical arrays, Hollender, F., Z. Roumelioti, J. Regnier, V. Perron and P.-Y. Bard, Proc. of the 16<sup>th</sup> European Conf. on Earthq. Eng. (16ECEE), 18-21 June 2018, Thessaloniki, Greece, 2018.
- The ARGONET (Greece) Seismic Observatory: Site Characterization, Instrumentation and Data, Theodoulidis, N., F. Hollender, A. Mariscal, P.-Y. Bard, A. Konidaris, D. Moiriat, M. Cushing, K. Konstantinidou and Z. Roumelioti, Proc. of the 16<sup>th</sup> European Conf. on Earthq. Eng. (16ECEE), 18-21 June 2018, Thessaloniki, Greece, 2018.

**CONFERENCES/WORKSHOPS/etc.**

*Participation to **more than 35** National, international scientific conferences, workshops, summer schools, educational seminars. Indicatively:*

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- International Earth Science Colloquium on the Aegean Region (IESCA 2019), 7-11 October 2019, Izmir, Turkey
- 36<sup>th</sup> General Assembly of the European Seismological Commission (ESC 2018), 2-7 September 2018, Valetta, Malta
- 16<sup>th</sup> European Conference on Earthquake Engineering (16 ECEE), 18-21 June 2019, Thessaloniki, Greece
- 14<sup>th</sup> International Conference of the Geological Society of Greece, 25-27 May 2015, Thessaloniki, Greece
- Annual Meeting of the Seismological Society of America (SSA 2015), 21-23 April 2015 Pasadena, California, USA

## MEMBERSHIPS & REVIEWING ACTIVITIES

- 2017 - 2020** National Representative/Review Panel Member for the COST Association Open Calls OC-2017-1, OC\_2018-2, OC-2019-1, Cost Association, Belgium
- 2003 -** Reviewer in 13 international scientific journals and several national and international conferences

## TEACHING ACTIVITIES

- 1998 - 2001** Laboratories: Physics of the Earth's Interior; Applied Geophysics, Department of Geology, Aristotle University of Thessaloniki, Greece
- 2007 - 2009** Laboratories: Physics of the Earth's Interior; Applied Seismology, Department of Geology, Aristotle University of Thessaloniki, Greece
- 2015 - 2019** Mathematics (Linear Algebra, Vector Analysis), Department of Civil Engineering, Aristotle University of Thessaloniki, Greece
- 2020** Seismology; Geophysics, Department of Geology, University of Patras, Greece

## SUPERVISION OF GRADUATE STUDENTS

- 2008 - 2019** 2 Master Students; Department of Geology, Aristotle University of Thessaloniki, Greece
- 2020 -** As Advisor: 1 PhD student; Department of Geology, University of Patras, In Advisory Committees: 1 PhD student; Department of Geology, Aristotle University of Thessaloniki

## FELLOWSHIPS and AWARDS

- 1999** Award for top grade in MSc courses in the Department of Geology of the Aristotle University of Thessaloniki
- 1999 – 2003** Scholarship for PhD Studies, Greek State Foundation of Scholarships
- 2004** Scholarship for Post-Doctoral Studies, Research Committee of the Aristotle University of Thessaloniki
- 2005 – 2006** Scholarship for Post-Doctoral Studies, Greek State Foundation of Scholarships

## RESEARCH GRANTS

Participation to **more than 45** European, International and National Research Projects. Indicatively:

Project Title	Funding source	Period	Role of the PI
European Plate Observing System - <b>EPOS</b>	European Commission	2014-2019	Team member for the designing and implementation of the European Geotechnical Database service
Strategies and tools of Real Time Earthquake Risk Reduction - <b>REAKT</b>	European Commission	2011-2014	Implementation - operation of an EEW system for the city of Thessaloniki, Greece; Instrumentation of critical infrastructure (AHEPA hospital) for rapid damage assessment