

## Dr. Sokos Efthimios

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### Education

**1992:** Bachelor's Degree, University of Patras, Department of Geology,

**1998:** PhD, University of Patras, Department of Geology

**2000 –2001:** Post Doctoral fellowship, Greek State Scholarship Foundation

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### Employment

2002/12 – 2005/08 Researcher, National Observatory of Athens, Institute of Geodynamics

2005/09 – 2010/02 Lecturer, University of Patras, Geology Department

2010/02 – 2015/11 Assistant Professor, University of Patras, Geology Department

2015/11 – Associate Professor, University of Patras, Geology Department

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### Teaching

#### ***Undergraduate level lectures***

2005 - 2015 «Seismology» and «Engineering Seismology».

2006 - 2015 «Introduction to computer science (computer applications in geology)».

2014 – 2015 «Geophysics»

2014 – 2015 «Engineering Geophysics»

#### ***Postgraduate level lectures***

2005 - 2015 «Advanced Seismology Subjects», «Applied Geophysics»

#### ***Diploma Thesis***

I have supervised five diploma thesis as a lecturer, three as an assistant professor (two or them for students from the Department of Computer Engineering and Informatics). I am currently supervising five diploma thesis.

#### ***Master thesis***

I have supervised ten Master thesis, two from the Department of Computer Engineering and Informatics.

#### ***PhD Thesis***

Two PhD Thesis has been completed under my supervision. I am currently supervising two PhD students.

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### Research Interests

Seismic source studies, seismic hazard, strong ground motion synthesis, microseismic networks.

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### Research Projects

I have contributed to many research projects of the Seismology Laboratory of the University of Patras (e.g. 3F, REAKT, QUICKER, HUSN, HELPOS). I was scientific coordinator for the REAKT project for the Seismology Laboratory and I was coordinator for a “KARATHEODORY” project related to automatic processing of seismic signals. I am scientific coordinator for the HELPOS project, for the Seismology Laboratory

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## Other Activities

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- Responsible for the operation of the seismic network PSLNET
- I am scientific responsible of project “Egelados” for installation of seismographs at schools, under this project I am giving talks to high schools about seismology
- Together with Prof. Jiri Zahradnik I have developed the moment tensor inversion code ISOLA. The code has almost 150 registered users and it is used by various institutes worldwide (<http://seismo.geology.upatras.gr/isola/>).
- I was instructor at four seminars for the use of ISOLA (Costa Rica, Bogota, Brazilia, Istanbul).
- I spent one month in École Normale Supérieure ENS, Paris as visiting Professor (June 2012).

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## Publications – Citations

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According to SCOPUS there are 66 cited documents and 672 citations of my work (without self-citations) and h-index is 14, (Google scholar web page: <https://scholar.google.gr/citations?user=FiYTHngAAAAJ&hl=el>).

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## Publications - International Journals (last five years)

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1. Sokos, E. and J. Zahradník (2013). Evaluating centroid moment tensor uncertainty in new version of ISOLA software. *Seismol. Res. Letters*, July/August 2013, v. 84, p. 656-665.
2. Lois, A., Sokos, E., Martakis, N., Paraskevopoulos, P., Tselentis, G.-A. (2013). A new automatic S-onset detection technique: Application in local earthquake data. *Geophysics*, 78 (1), pp. KS1-KS11.
3. Gallovič, F., Ameri, G., Zahradník, J., Janský, J., Plicka, V., Sokos, E., Askan, A. and Pakzad, M., (2013). Fault Process and Broadband Ground-Motion Simulations of the 23 October 2011 Van (Eastern Turkey) Earthquake. *Bull.Seismol.Soc.Am.*, 103-6, 3164-3178,doi:10.1785/0120130044.
4. Zahradnik, J. and Sokos, E., (2013). The Mw 7.1 Van, Eastern Turkey, earthquake 2011: two-point source modelling by iterative deconvolution and non-negative least squares. *Geophys. J. Int.*, 196-1, 522-538,doi:10.1093/gji/ggt386.
5. Quintero, R., Zahradník, J. and Sokos, E., (2014). Near-regional CMT and multiple-point source solution of the September 5, 2012, Nicoya, Costa Rica Mw 7.6 (GCMT) earthquake. *Journal of South American Earth Sciences*, 55, 155-165,doi:10.1016/j.jsames.2014.07.009.
6. Vackář, J., Zahradník, J. and Sokos, E., (2014). Strong fast long-period waves in the Efpalio 2010 earthquake records: explanation in terms of leaking modes. *J. Seismol.*, 18-1, 81-91,doi:10.1007/s10950-013-9402-3
7. Serpetsidaki, A., Elias, P., Ilieva, M., Bernard, P., Briole, P., Deschamps, A., Lambotte, S., Lyon-Caen, H., Sokos, E. and Tselentis, G.A., (2014). New constraints from seismology and geodesy on the Mw = 6.4 2008 Movri (Greece) earthquake: evidence for a growing strike-slip fault system. *Geophys. J. Int.*, 198-3, 1373-1386.
8. Giannopoulos, D., Sokos, E., Konstantinou, K.I., and Tselentis G-A. (2015). Shear wave splitting and VP/VS variations before and after the Efpalio earthquake sequence, western Gulf of Corinth, Greece *Geophys. J. Int.*, 200 (3): 1436-1448 doi:10.1093/gji/ggu467.
9. Novotný, O., Vackář, J. and Sokos, E., (2015). Dispersion of Love waves from the 2010 Efpalio earthquake in the Corinth Gulf region, Greece, *Journal of Seismology*, accepted. DOI 10.1007/s10950-015-9492-1
10. Sokos, E., Kiratzi, A., Gallovič, F., Zahradník, J., Serpetsidaki, A., Plicka, V., Janský, J., Kostelecký, J., Tselentis, G.-A. Rupture process of the 2014 Cephalonia, Greece, earthquake doublet (Mw6) as inferred from regional and local seismic data (2015) *Tectonophysics*, 656, pp. 131-141.

11. Kapetanidis, V., Deschamps, A., Papadimitriou, P., Matrullo, E., Karakonstantis, A., Bozionelos, G., Kaviris, G., Serpetsidaki, A., Lyon-caen, H., Voulgaris, N., Bernard, P., Sokos, E., Makropoulos, K., 2015. The 2013 earthquake swarm in Helike, Greece: Seismic activity at the root of old normal faults. *Geophys. J. Int.* 202. doi:10.1093/gji/ggv249
12. Zahradník, J., Fojtíková, L., Carvalho, J., Barros, L.V., Sokos, E., Janský, J. Compromising polarity and waveform constraints in focal-mechanism solutions; the Mara Rosa 2010 Mw 4 central Brazil earthquake revisited (2015) *Journal of South American Earth Sciences*, 63, pp. 323-333.
13. Fojtíková, L., Kristeková, M., Málek, J., Sokos, E., Csicsay, K., Zahradník, J. Quantifying capability of a local seismic network in terms of locations and focal mechanism solutions of weak earthquakes (2016) *Journal of Seismology*, 20 (1), pp. 93-106.
14. Triantafyllis, N., Sokos, E., Ilias, A., Zahradník, J. Scisola: Automatic moment tensor solution for SeisComp3 (2016) *Seismological Research Letters*, 87 (1), pp. 157-163.
15. Behr, Y., Clinton, J.F., Cauzzi, C., Hauksson, E., Jónsdóttir, K., Marius, C.G., Pinar, A., Salichon, J., Sokos, E. The Virtual Seismologist in SeisComp3: A New Implementation Strategy for Earthquake Early Warning Algorithms (2016) *Seismological Research Letters*, 87 (2A), pp. 363-373.
16. Sokos, E., Tselentis, G.-A., Paraskevopoulos, P., Serpetsidaki, A., Stathopoulos-Vlami, A., Panagis, A. Towards earthquake early warning for the Rion-Antirion bridge, Greece (2016) *Bulletin of Earthquake Engineering*, 14 (9), pp. 2531-2542.
17. Sachpazi, M., Laigle, M., Charalampakis, M., Sakellariou, D., Flueh, E., Sokos, E., Daskalaki, E., Galvé, A., Petrou, P., Hirn, A. Slab segmentation controls the interplate slip motion in the SW Hellenic subduction: New insight from the 2008 Mw 6.8 Methoni interplate earthquake (2016) *Geophysical Research Letters*, 43 (18), pp. 9619-9626.
18. Serpetsidaki, A., Sokos, E., Tselentis, G.-A. A ten-year Moment Tensor database for Western Greece (2016) *Physics and Chemistry of the Earth*, 95, pp. 2-9.
19. Sokos, E., Zahradník, J., Gallovič, F., Serpetsidaki, A., Plicka, V., Kiratzi, A. Asperity break after 12 years: The Mw6.4 2015 Lefkada (Greece) earthquake (2016) *Geophysical Research Letters*, 43 (12), pp. 6137-6145.
20. Zahradník, J., Cížková, H., Bina, C.R., Sokos, E., Janský, J., Tavera, H., Carvalho, J. A recent deep earthquake doublet in light of long-term evolution of Nazca subduction (2017) *Scientific Reports*, 7, art. no. 45153,
21. Liu, J., Li, L., Zahradník, J., Sokos, E., Plicka, V. Generalized source model of the North Korea tests 2009-2017 (2018) *Seismological Research Letters*, 89 (6), pp. 2166-2173. DOI: 10.1785/0220180106
22. Zahradník, J., Sokos, E. Fitting waveform envelopes to derive focal mechanisms of moderate earthquakes (2018) *Seismological Research Letters*, 89 (3), pp. 1137-1145. DOI: 10.1785/0220170161
23. Liu, J., Li, L., Zahradník, J., Sokos, E., Liu, C., Tian, X. North Korea's 2017 Test and its Nontectonic Aftershock (2018) *Geophysical Research Letters*, 45 (7), pp. 3017-3025. DOI: 10.1002/2018GL077095