

Paraskevas (Paris) Xypolias

Professor in Structural Geology, Hard Rock Geology and Geodynamics

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Professional Experience and Appointments:

2001 - 2005. Lecturer (fixed term/Ad-hoc), University of Patras.
2007 - 2011. Lecturer, University of Patras.
2011 - 2015. Assistant Professor, University of Patras.
2015 - 2019. Associate Professor, University of Patras
2020 – Present. Professor, University of Patras

Education:

B.Sc. in Geology (Ptychion - 4 year study course), Department of Geology, University of Patras, Greece
Ph.D. in Structural Geology and Tectonics, Department of Geology, University of Patras, Greece. Title of thesis: "The kinematic evolution of north Peloponnese"

Sabbatical Leaves for Research

July-Aug 2004. Visiting researcher at Universität Erlangen-Nürnberg, Institut für Geologie und Mineralogie, Germany (collaboration with Prof. Dr. Gernold Zulauf; funded by Deutscher Akademischer Austausch Dienst and State Scholarships Foundation of Greece).
Sept-Oct 2005. Visiting researcher at Universität Frankfurt a.M., Institut für Geowissenschaften, Germany (collaboration with Prof. Dr. Gernold Zulauf; funded by Deutscher Akademischer Austausch Dienst and State Scholarships Foundation of Greece).
Sept-Oct 2012. Academic Visitor at Universität Frankfurt a.M., Institut für Geowissenschaften, Germany (collaboration with Prof. Dr. Gernold Zulauf; funded by Deutscher Akademischer Austausch Dienst and State Scholarships Foundation of Greece).
Jan-Apr 2013. Academic Visitor at the University of Aberdeen, Department of Geology and Petroleum Geology, UK (collaboration with Prof. Ian Alsop and Dr. David Iacopini; funded by Univ. Patras).
Sept 2014. Academic Visitor at Universität Frankfurt a.M., Institut für Geowissenschaften, Germany (funded by Erasmus programme - staff teaching assignments).
July 2018. Academic Visitor at Dipartimento di Scienze della Terra, Università di Pisa

Teaching Experience and Thesis Supervision

Teaching experience (undergraduate courses): 16 years
Teaching experience (graduate courses): 10 years
Undergraduate Thesis Supervision: 53 (31 completed; 22 in progress)
Graduate (Master) Thesis Supervision: 10 (7 completed; 3 in progress)
Graduate (PhD) Thesis Supervision: 3 (2 completed; 1 in progress)

Textbooks for students

1. **Xypolias, P.** 2009. Azimuthal projections in Structural Geology. Symmetria Publ. Athens, pp. 197. (in Greek).
2. Koukouvelas, I. **Xypolias, P.**, Kokkalas, S. 2008. Geology of Greece. (in Greek).

3. Fakiris, I., **Xypolias, P.**, Papatheodorou, G. 2008. Applications of Excel, Grapher/Surfer in Geology. (in Greek).
4. Kokkalas, S., **Xypolias, P.**, Skourlis, K. 1997. Laboratory courses in Geotectonics. (in Greek).

Research Grants

1. Kinematics and deformation mechanism of HP-LT rocks of south Evia. 2003-2004. Postdoctoral Research Grant-State Scholarships Foundation of Greece; **7,500€; PI**
2. Quantitative analysis of ductile deformation in the metamorphic rocks of the western Cycladic Massif. 2010-2013. Karatheodori Research Grant-Research Committee of Univ. Patras; **33,000€; PI**.
3. Detrital zircon ages of External Hellenides. 2012. Research scholarship-Deutscher Akademischer Austausch Dienst and State Scholarships Foundation of Greece; **5,000€; PI**.
4. The Alpine tectonic evolution of south Aegean. 2014-2017. Karatheodori Research Grant-Research Committee of Univ. Patras; **33,000€; PI**.

Editorial activities

1. **Xypolias, P.**, Zulauf, G. (eds) Eastern Mediterranean. Z. Dtsch. Ges. Geowiss., vol. 159. 2008.
2. **Xypolias, P.**, Ustaömer, T., Zulauf, G. (eds) Eastern Mediterranean Tectonics. Int. J. Earth Sci., vol. 105, 2016.

Reviewing activities

Scientific Journal Reviewer (2002-Present). Reviewer of more than 80 manuscripts submitted to: Journal of Structural Geology; Tectonics; Tectonophysics; Geological Magazine; Terra Nova; Geological Journal; International Journal of Earth Sciences; Lithosphere; Gondwana Research; Zeitschrift der Deutschen Gesellschaft für Geowissenschaften, Geological Society, London, Special Publications; Austrian Journal of Earth Science; Minerals.
Reviewer of National Science Foundation, proposals for NSF-EAR Tectonics division.

Peer-Reviewed Publications

Journals of Science Citation Index and special volumes of Book Citation Index: 45

Other peer-reviewed journals: 8

H-index: 21 (Google scholar); 20 (Elsevier-Scopus); 20 (Web of Science)

Citations: 1529 (Google scholar); 1138 (Elsevier-Scopus); 1084 (Web of Science)

Abstracts in International Conferences and Meetings: 52

1. **Xypolias, P.**, Doutsos, T. 2000. Kinematics of rock flow in a crustal scale shear zone: implication for the orogenic evolution of the SW Hellenides. Geological Magazine, 137, 81-96.
2. Doutsos, T., Koukouvelas, I., Poulimenos, G., Kokkalas, S., **Xypolias, P.**, Skourlis, K. 2000. An exhumation model of the south Peloponnesus, Greece. International Journal of Earth Science, 89, 350-365.
3. **Xypolias, P.**, Koukouvelas, I. 2001. Kinematic vorticity and strain rate patterns associated with ductile extrusion in the Chelmos Shear Zone (External Hellenides, Greece). Tectonophysics, 338, 59-77.
4. **Xypolias, P.** 2001. The rheological properties of rocks in a compressional ductile shear zone, Phyllite-Quartzite Series, Peloponnese. Bulletin of the Geological Society of Greece, 34, 353-360.
5. **Xypolias, P.**, Kokkalas, S., Skourlis, K. 2003. Upward extrusion and subsequent transpression as a possible mechanism for the exhumation of HP/LT rocks in Evia Island (Aegean Sea, Greece). Journal of Geodynamics, 35, 303-332.
6. Kokkalas, S., **Xypolias, P.**, Koukouvelas, I., Doutsos, T. 2003. Relationships between folding and fracturing: Examples from the Rhenohercynian Zone (Germany) and the External Hellenides (Greece). Geologica Carpathica, 54, 153-162.
7. **Xypolias, P.**, Koukouvelas, I. 2004. Fault trace parameters as a tool for analysing remotely sensed fault arrays: an example from the eastern Gulf of Corinth. International Journal of Remote Sensing, 25, 4685-4699.

8. Kostakioti, A., **Xypolias, P.**, Kokkalas, S., Doutsos, T. 2004. Quantitative analysis of deformation along the fault damage zone of the Klimatia thrust (NW Greece, Ionian zone). *Bulletin of the Geological Society of Greece*, 36, 1643-1651.
9. Koukouvelas, I., Katsonopoulou, D., Soter, S., **Xypolias, P.** 2005. Slip rates on the Helike Fault, Gulf of Corinth, Greece: new evidence from geoarchaeology. *Terra Nova*, 17, 158-164.
10. **Xypolias, P.**, Koukouvelas, I. 2005. Paleostress magnitude in a Fold-Thrust Belt (External Hellenides, Greece): evidence from twinning in calcareous rocks. *Episodes*, 28, 245-251. (IF: 1.22)
11. Kokkalas, S., **Xypolias, P.**, Koukouvelas, I. 2005. Structural evolution and kinematics in the contact zone between Serbomacedonian and Rhodope massifs, central Macedonia, Greece. *Bulletin of the Geological Society of Greece*, 37, 143-152.
12. Koukouvelas, I., Kokkalas, S., **Xypolias, P.** 2008. Paleoseismic investigations along a key active fault within the Gulf of Corinth, Greece. *IOP Conf. Series: Earth and Environmental Science*, 2.
13. **Xypolias, P.**, Dörr, W., Zulauf, G. 2006. Late Carboniferous plutonism within the pre-Alpine basement of the External Hellenides (Kithira, Greece): evidence from U-Pb zircon dating. *Journal of the Geological Society, London*, 163, 539-547.
14. Kokkalas, S., **Xypolias, P.**, Koukouvelas, I., Doutsos, T. 2006. Post-collisional contractional and extensional deformation in the Aegean region. In: Dilek, Y. & Pavlides, S. (eds) *Post-Collisional Tectonics & Magmatism in the Eastern Mediterranean Region*. Geological Society of America, *Special Papers*, 409, 97-123.
15. **Xypolias, P.**, Kokkalas, S. 2006. Heterogeneous ductile deformation along a mid-crustal extruding shear zone: an example from the External Hellenides (Greece). In: Law, R.D., Searle, M., Godin, L. (eds) *Channel flow, ductile extrusion and exhumation of lower-mid crust in continental collision zones*. Geological Society, London, *Special Publications*, 268, 497-516.
16. Doutsos, T., Koukouvelas, I., **Xypolias, P.** 2006. A new orogenic model for the External Hellenides. In: Robertson, A.H.F., Mountrakis, D. (eds) *Tectonic evolution of the Eastern Mediterranean regions*. Geological Society, London, *Special Publications*, 260, 507-520.
17. Chatzaras, V., **Xypolias, P.**, Doutsos, T. 2006. Exhumation of high-pressure rocks under continuous compression: a working hypothesis for southern Hellenides (central Crete, Greece). *Geological Magazine*, 143, 859-876.
18. **Xypolias, P.**, Chatzaras, V., Koukouvelas, I. 2007. Strain gradients in zones of ductile thrusting: insights from the External Hellenides. *Journal of Structural Geology*, 29, 1522-1537.
19. **Xypolias, P.**, Koukouvelas, I., Zulauf, G. 2008. Cenozoic tectonic evolution of northeastern Apulia: insights from a key area in the Hellenides (Kythira, Greece). In: Xypolias, P., Zulauf, G. (eds) *Eastern Mediterranean*. *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften*, 159, 439-455.
20. Lode, S., Romer, T., Völs, S., **Xypolias, P.**, Zulauf, G. 2008. The pre-Alpine basement of Kythira (Greece). In: Xypolias, P., Zulauf, G. (eds) *Eastern Mediterranean*. *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften*, 159, 457-468.
21. Romer, T., Völs, S., Schulz, B., **Xypolias, P.**, Zulauf, G., Finger, F. 2008. Metamorphism and P-T paths of the pre-Alpine basement and the Phyllite-Quartzite unit s.str. of Kythira (External Hellenides, Greece). In: Xypolias, P., Zulauf, G. (eds) *Eastern Mediterranean*. *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften*, 159, 469-484.
22. Zygouri, V., Verriós, S., Kokkalas, S., **Xypolias, P.**, Koukouvelas, I. 2008. Scaling properties within the Gulf of Corinth, Greece; comparison between offshore and onshore active faults. *Tectonophysics*, 453, 193-210.
23. Zygouri, V., Verriós, S., Kokkalas, S., **Xypolias, P.**, Koukouvelas, I., Papadopoulos, G. 2008. Propagation of Active Faults in Corinth Gulf. *Bulletin of the Geological Society of Greece*, 41, 25-33.
24. Koukouvelas, I., Kokkalas, S., **Xypolias, P.** 2008. Paleoseismic investigations along a key active fault within the Gulf of Corinth, Greece. *IOP Conf. Series: Earth and Environmental Science*, 2, doi:10.1088/1755-1307/2/1/012023.
25. **Xypolias, P.** 2009. Some new aspects of kinematic vorticity analysis in naturally deformed quartzites. *Journal of Structural Geology*, 31, 3-10.
26. Koukouvelas, I., Kokkalas, S., **Xypolias, P.** 2010. Surface deformation during the Mw 6.4 (June 08, 2008) Movri Mt earthquake, Greece. *International Geology Review*, 52, 249-268.

27. Iacopini, D., Carosi, R., **Xypolias, P.** 2010. Implication of complex Eigenvalues in homogeneous flows: a three dimensional kinematic analysis. *Journal of Structural Geology*, 32, 93-106.
28. **Xypolias, P.**, Spanos, D., Chatzaras, V., Kokkalas, S., Koukouvelas, I. 2010. Vorticity of flow in ductile thrust zones: examples from the Attico-Cycladic Massif (Internal Hellenides, Greece). In: Law, R., Butler, R., Holdsworth, B., Krabbendam, M., Strachan, R. (eds) *Continental Tectonics and Mountain Building*. Geological Society, London, Special Publications, 335, 687-714.
29. **Xypolias, P.** 2010. Vorticity analysis in shear zones: a review of methods and applications. *Journal of Structural Geology*, 32, 2072-2092.
30. Spanos, D., Koukouvelas, I., Kokkalas, S., **Xypolias, P.** 2010. Patterns of ductile deformation in Attico-Cycladic Massif. *Bulletin of the Geological Society of Greece*, 43, 368-378.
31. **Xypolias, P.**, Chatzaras, V. 2010. The nature of ductile deformation in the Phyllite-Quartzite unit (External Hellenides). *Bulletin of the Geological Society of Greece*, 43, 387-397.
32. Chatzaras, V., **Xypolias, P.**, Kokkalas, S., Koukouvelas, I. 2011. Ductile to brittle thrusting in central Aegean: insights from the Cycladic island of Amorgos. *Geological Journal*, 46, 619-636.
33. **Xypolias, P.**, Iliopoulos, I., Chatzaras, V., Kokkalas, S. 2012. Subduction- and exhumation-related structures in the Cycladic Blueschists: insights from Evia Island (Aegean region, Greece). *Tectonics*, 31, TC2001.
34. Chatzaras, V., Dörr, W., Finger, F., **Xypolias, P.**, Zulauf, G. 2013. U-Pb single zircon ages and geochemistry of metagranitoid rocks in the Cycladic blueschists (Evia island): implications for the Triassic tectonic setting of Greece. *Tectonophysics*, 595-596, 125-139.
35. Kaplanis, A., Koukouvelas I., **Xypolias, P.**, Kokkalas, S. 2013. Kinematics and Ophiolite obduction in the Gerania and Helicon Mountains, central Greece. *Tectonophysics*, 595-596, 215-234.
36. Kokkalas, S., Kamberis, E., **Xypolias, P.**, Sotiropoulos S., Koukouvelas I. 2013. Coexistence of thin- and thick-skinned tectonics in Zakynthos area (Western Greece): insights from seismic sections and regional seismicity. *Tectonophysics*, 597-598, 73-84.
37. **Xypolias, P.**, Chatzaras, V., Beane, R., Papadopoulou, S. 2013. Heterogeneous constrictional deformation in a ductile shear zone resulted from the transposition of a lineation-parallel fold. *Journal of Structural Geology*, 52, 44-59.
38. Chatzaras, V., **Xypolias, P.**, Kokkalas, S., Koukouvelas, I. 2013. Tectonic evolution of a crustal-scale oblique ramp, Hellenides thrust belt, Greece. *Journal of Structural Geology*, 57, 16-37.
39. **Xypolias, P.**, Alsop, I. 2014. Regional flow perturbation folding within an exhumation channel: A case study from the Cycladic Blueschists. *Journal of Structural Geology*, 62, 141-155.
40. Zygouri, V., Koukouvelas, I., Kokkalas, S., **Xypolias, P.**, Papadopoulos, G.A. 2015. The Nisi Fault as a key structure for understanding the active deformation of the NW Peloponnese, Greece. *Geomorphology*, 237, 142-156.
41. Zulauf, G., Dörr, W., Fisher-Spurlock, S.C., Gerdes, A., Chatzaras, V., **Xypolias, P.** 2015. Closure of the Paleotethys in the External Hellenides: Constraints from U-Pb ages of magmatic and detrital zircons (Crete). *Gondwana Research*, 28, 642-667.
42. Spanos, D., **Xypolias, P.**, Koukouvelas, I. 2015. Vorticity analysis in calcite tectonites: An example from the Attico-Cycladic massif (Attica, Greece). *Journal of Structural Geology*, 80, 120-132.
43. Aravadinou, E., **Xypolias, P.**, Chatzaras, V., Iliopoulos, I., Gerogiannis, N. 2016. Ductile nappe stacking and refolding in the Cycladic Blueschist unit: insights from Sifnos Island (south Aegean Sea). *International Journal of Earth Sciences*, 105, 2075-2096.
44. Chatzaras, V., Dörr, W., **Xypolias, P.**, Zulauf, G. 2016. Tracking the late Paleozoic to early Mesozoic margin of northern Gondwana in the Hellenides: paleotectonic constraints from U-Pb detrital zircon ages. *International Journal of Earth Sciences*, 105, 1881-1899.
45. Zulauf, G., Dörr, W., Krahl, J., Lahye, L., Chatzaras, V., **Xypolias, P.** 2016. U-Pb zircon and biostratigraphic data of high-pressure/low-temperature metamorphic rocks of the Talea Ori: Tracking the Paleotethys suture in central Crete, Greece. *International Journal of Earth Sciences*, 105, 1901-1922.
46. Martha, S.O., Dörr, W., Gerdes, A., Petschick, R., Schastok, J., **Xypolias, P.**, Zulauf, G. 2016. New structural and U-Pb zircon data from Anafi crystalline basement (Cyclades, Greece): constraints on the evolution of a Late Cretaceous magmatic arc in the Internal Hellenides. *International Journal of Earth Sciences*, 105, 2031-2060.

47. Papadopoulou, S., Aravadinou, E., Karavoulia, C., **Xypolias, P.** 2016. The tectonostratigraphy of Cycladic Blueschist unit on Sikinos and Sifnos: Implication for the Mesozoic tectonic setting. *Bulletin of the Geological Society of Greece*, 50, 114-123.
48. Aravadinou, E., **Xypolias, P.** 2017. Evolution of a passive crustal-scale detachment (Syros, Aegean region): insights from structural and petrofabric analyses in the hanging-wall. *Journal of Structural Geology*, 103, 57-74.
49. Gerogiannis, N., **Xypolias, P.** 2017. Retroward extrusion of high-pressure rocks: an example from the Hellenides (Pelion Blueschist Nappe, NW Aegean). *Terra Nova*, 29, 372-381.
50. **Xypolias, P.**, Gerogiannis, N., Chatzaras, V., Papapavlou, K., Kruckenberg, S.C., Aravadinou, E., Michels, Z. 2018. Using incremental elongation and shearing to unravel the deformation path in a complex transpressional zone. *Journal of Structural Geology*, 115, 64-81.
51. Martha, S.O., Zulauf, G., Dörr, W., Binck, J. J., Nowara, P.M., **Xypolias, P.** 2019. The Uppermost Unit south of the Dikti Mountains, eastern Crete: Constraints on the Tectonometamorphic evolution of the Internal Hellenides. *Geological Magazine*, 156, 1003-1026.
52. Gerogiannis, N., **Xypolias, P.**, Chatzaras, V., Aravadinou, E., Papapavlou, K. 2019. Deformation within the Cycladic subduction-exhumation channel: new insights from the enigmatic Makrotantalo nappe (Andros, Aegean). *International Journal of Earth Sciences*, 108, 817–843.
53. Zulauf, G., Dörr, W., **Xypolias, P.**, Gerdes, A., Kowalczyk, G., Linckens, L. 2019. Triassic evolution of the western Neotethys: Constraints from microfabrics and U–Pb detrital zircon ages of the Plattenkalk Unit (External Hellenides, Greece). *International Journal of Earth Sciences*, 108, 2493-2529.