

# CURRICULUM VITAE Eleni Xoplaki, PhD

## Personal details

Name Eleni Xoplaki  
Work Address Justus Liebig University Giessen  
Climatology, Climate Dynamics and Climate Change  
Department of Geography &  
Center for international Development and Environmental  
Research (ZEU)  
Senckenbergstrasse 1, 35390 Giessen, Germany  
Email: elena.xoplaki@geogr.uni-giessen.de  
Nationality Greek, Swiss

Acting Head of the Climatology/Climate Dynamics and Climate Change group  
Fellow of the European Academy of Sciences (EurASc), <https://www.eurasc.org/>  
Council member and Speaker of the Focus Area "Climate and Environmental  
Change" at the Center for international Development and Environmental  
Research (ZEU) of the Justus Liebig University Giessen  
Vice-Chair: ITU/WMO/UNEP Focus Group on Artificial Intelligence for Natural  
Disaster Management  
External scientific advisory committee member of the Instituto de Geociencias  
(IGEO, <https://igeo.ucm-csic.es/>), Spain

## Academic studies - Education

1998 – 2002 PhD in Natural Sciences (Dr. phil. nat.), Class "*Excellent*"  
Faculty of Sciences, University of Bern, Switzerland  
PhD Thesis: "Climate Variability over the Mediterranean"  
Scholarship awarded by the Greek State Scholarships Foundation  
1995 – 1998 MSc in Meteorology & Climatology, Class "*Excellent*"  
Aristotle University of Thessaloniki, Greece  
MSc Thesis: "Climatic changes and extreme weather events during the  
period of the Late Maunder Minimum in the region of southern Balkans  
and the eastern Mediterranean"  
1990 – 1995 University degree in Geology, Class "*Very Good*"  
Aristotle University of Thessaloniki, Greece  
2. – 5.1995 ERASMUS Scholarship at the Université de Lille I, Lille, France

## Employment history

2020 –	Acting Head of the Climatology/Climate Dynamics and Climate Change group;
2011 – present	Justus Liebig University, Akademische Rätin (permanent), deputy head of the Climatology/Climate Dynamics and Climate Change group <i>Scientific research:</i> climate variability and change, extreme weather and climate events (floods, droughts, heatwaves, frost) past, present and future, atmospheric circulation dynamics, process understanding, climate-society interactions, climate services, interdisciplinary and international collaboration. PI of national and international research projects (details under Projects section below), <i>Teaching</i> at the bachelor (BSc) and master (MSc) studies levels: Mediterranean Climate Change; Climate Change and Human Health; The southern Pacific Island countries; Climate, Climate Change Impacts: Greece, including excursion to Athens/Peloponnese, General Skills: Science & Scientific Communication. Supervision of bachelor, master, doctoral and postdoctoral students. <i>Administration</i> in the frame of the department of Geography. Attracting funds for research, organization of conferences, workshops, meetings; supervision of international exchange researchers and students, contribution to internationalisation strategy of the University, cooperation UWisconsin (Madison, Milwaukee), capacity building, cooperation activities China, Namibia, South Africa.
2010 – 2011	Senior Research Fellow, World Trade Institute, University of Bern
3.2009 – 12.2010	Research Scientist / Project coordinator. The Cyprus Institute, Energy, Environment and Water Research Institute, Nicosia, Cyprus
2007 – 2009	Science Officer, Oeschger Centre for Climate Change Research (OCCR), University of Bern, Switzerland
2007 – 2013	Senior scientist, Institute of Geography, University of Bern
2005 – 2009	Science Officer, Deputy Executive Director. NCCR Climate Management Centre, University of Bern, Switzerland
1999 – 2006	University of Bern research assistant in various EU projects. Institute of Geography, University of Bern, Switzerland
1996 – 1998	Scientific assistant. Aristotle University of Thessaloniki, Greece
7. – 8.1995	Practicum. Greek Railways, Thessaloniki, Greece
<u>Stays abroad</u>	
July 2019	Key Laboratory of Regional Climate-Environment in Temperate East Asia, Institute of Atmospheric Physics & Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China
August 2016	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China

July 2013	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China
2. – 4. 2011	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China
2. – 4. 2006	University of Arizona, Tucson, Lab. of Tree-ring Research, US NSF Project "Climate Variability from North African Tree-Ring"
May 2004	University of Arizona, Tucson, Lab. of Tree-ring Research, US NSF Project "Near East climate variability from tree ring"

### Scientific Projects / Grants

Daten- und KI-gestütztes Frühwarnsystem zur Stabilisierung der deutschen Wirtschaft (Data and AI-based Early Warning System to stabilise the German Economy, DAKI-FWS), PI Federal Ministry for Economic Affairs and Energy (BMWi) 2021-2024

Acquired partner budget: 1'445'000 EUR

CLimate INTelligence: extreme events detection, attribution and adaptation design using machine learning (CLINT), PI H2020 2021-2025

Acquired partner budget: 439'000 EUR

Fork-to-farm agent-based simulation tool augmenting BIODiversity in the agri-food VALUE chain (BIOVALUE), PI H2020 2021-2025

Acquired partner budget: 436'250 EUR

ClimXtreme Module C: Impacts of extreme weather and climate events on natural and socio-economic systems; subproject: Impacts of compound weather extremes on crops in Germany: present and future (CROP), PI Federal Ministry of Education and Research (BMBF) 2020-2023

Acquired partner budget: 280'000 Euro

Nutzbare Lokale Klimainformationen für Deutschland (Useful Local Climate Information for Germany; NUKLEUS); subproject: Hybrid-deterministisch-stochastische Verfahren und Herunterskalierung für Climate Services (Hybrid-Deterministic-Stochastic Methods and Downscaling for Climate Services); PI Federal Ministry of Education and Research (BMBF) 2020-2023

Acquired partner budget: 240'000 EUR

EM-MHeatWaves (Eastern Mediterranean marine heatwaves: Ocean responses to atmospheric forcing and impacts on marine ecosystems), DAAD (German Academic Exchange Service) 2020-2022

2020-2022

Acquired partner budget: 12'000 EUR

The Etesian wind system and energy potential over the Aegean Sea; Past, present, future DFG (German Science Foundation research project) 2016-2019

Acquired partner budget: 210'000 EUR

The Mediterranean Hot-Spot: Challenges and Responses in a Changing Environment DAAD (German Academic Exchange Service) Network project with the Aristotle University of Thessaloniki, Greece 2017-2019

Acquired budget: 150'000 EUR

VINCEX (Regional variability of wind and wind power: uncertainties, scenarios and extremes), DAAD (German Academic Exchange Service) 2012-2013

Acquired partner budget: 10'000 EUR

NESTOS-Water (Climate change and anthropogenic impacts on the surface water resources and the riparian ecosystem of the Nestos Delta), DAAD (German Academic Exchange Service) 2014-2015  
 Acquired partner budget: 10'000 EUR

IGBP-PAGES Workshop grant for the Workshop "*Mediterranean Holocene climate and human societies*", April 2014, Navarino Dunes, Costa Navarino, Messinia, Greece  
 Acquired budget: 5'000 USD

ETESIANS (The Etesian wind system over the Aegean Sea: an assessment of wind resources in the area for present and future climate), DAAD (German Academic Exchange Service) 2011-2012  
 Acquired partner budget: 10'000 EUR

FP7-EU CLIM-RUN (Climate Local Information in the Mediterranean region: Responding to User Needs), *project acquisition*; retained by the Cyprus Institute, Nicosia, Cyprus 2011-2014  
 Acquired partner budget: 300'000 EUR

IGBP-PAGES Workshop grant for the Symposium "*The Medieval Warm Period Redux – Where and when was it warm?*", September 2010, Lisbon, Portugal  
 Acquired budget: 5'000 USD

ESF-MedCLIVAR grant for Workshop "*Impacts of Mediterranean climate change on human health*", October 2009, Paphos, Cyprus Acquired budget: 15'000 EUR

FP7-EU ACQWA (Assessing Climate impacts on the Quantity and quality of WATER) 2009-2013  
 Acquired partner budget: 200'000 EUR

Cyl-CIMME (Climate Change and Impacts in the Eastern Mediterranean and Middle East) 2009-2010 Total budget: 500'000 EUR

IGBP-PAGES Workshop grant for the Symposium "*Extreme climate events during recent millennia and their impact on Mediterranean societies*", September 2008, Athens, Greece  
 Acquired budget: 5'000 USD

ESF-MedCLIVAR Workshop grant for the Symposium "*Extreme climate events during recent millennia and their impact on Mediterranean societies*", September 2008, Athens, Greece  
 Acquired budget: 6'000 EUR

Mariolopoulos-Kanaginis Foundation Workshop grant for the Symposium "*Extreme climate events during recent millennia and their impact on Mediterranean societies*", September 2008, Athens, Greece Acquired budget: 10'000 EUR

WMO-MEDARE (The MEditerranean climate DATa REscue Initiative) 2008-2012  
 Budget available via WMO for workshops and conferences

FP6-EU CIRCE (Climate Change and Impact ResearCh: the Mediterranean Environment), PI 2007-2011 Acquired partner budget: 200'000 EUR

ESF – Research Networking Programme MedCLIVAR (Mediterranean CLImate VARiability and Predictability) 2006-2011  
 ESF budget available for workshops, conferences, student exchange, publications, travel

FP5-EU SO&P (Simulations, Observations and Paleoclimate Data: climate variability over the last 500 years) 2002-2006

FP5-EU EMULATE (European and North Atlantic daily to multidecadal climate variability) 2003-2006

NCCR Climate (Nationaler Forschungsschwerpunkt Klima) Swiss National Science Foundation 2001-2009

FP4-EU ACCORD (Atmospheric Circulation Classification and Regional Downscaling) 1997-1998

FP4-EU ADVICE (Annual to Decadal Variability In Climate in Europe) 1996-1998

Professional activities as Steering Committee Member, Editor, Convener and Scientific Reviewer

Vice-Chair: ITU/WMO/UNEP Focus Group on Artificial Intelligence for Natural Disaster Management, <https://www.itu.int/en/ITU-T/focusgroups/ai4ndm/Pages/default.aspx>

Lead author Mediterranean Assessment Report 2020 (MAR1) Chapter Challenges of Climate and Environmental Changes, <https://www.medecc.org/first-mediterranean-assessment-report-mar1/>

Steering Committee Member (till June 2021): Network of Mediterranean Experts on Climate and environmental Change (MedECC): Towards an improved scientific assessment of climate change and its impact in the Mediterranean Basin, <https://www.medecc.org/>.  
*2020 North-South Prize of the Council of Europe* awardee

Climate Change and History Research Initiative: A comparative approach to climate, environment and society in Eurasia. Towards understanding the impact of climate on complex societies. Princeton University. Project member, <https://climatechangeandhistory.princeton.edu/>

ANSO Association for Trans-Eurasia Exchange and Silk-Road Civilization Development (ATES) WG5 "Silk Road Civilization and Environment" Coordinator, <http://www.anso.org.cn/programmes/asociation/Association/>

Hellenic Quality Assurance and Accreditation Agency, Accreditation Panel Member, 2019

Chief Editor: Euro-Mediterranean Journal for Environmental Integration, Springer, Topic 5: *Climate-change-related effects on the environment and ecological systems*, <https://www.springer.com/journal/41207>

PAGES Newsletter Science Highlights "*The Medieval Climate Anomaly*" March 2011 – Editor

Climatic Change Special Issue "*Climate Variability, Predictability and Climate Risks: A European Perspective*", vol. 79, Issue 1-2, 2006 – Editor and author

*Conferences, Meetings (Organizer, Convener)*

Workshop "*Climate change and ancient Peloponnesian realities: a WORKshop for linking climate model output with local archaeological information*", 18-22 October 2021, Navarino Dunes, Navarino Environmental Observatory, Messenia, Greece – Organiser, convener and speaker

Symposium "*The First Plague Pandemic (541–750 AD): Transformative Disaster or Footnote in History?*", 22-24 September 2021, Schloss Herrenhausen, Hannover, Volkswagen Foundation – Organiser, convener and speaker

ATES (ANSO Association for Trans-Eurasia Exchange and Silk-Road Civilization Development) *2020 Annual Meeting*, 23-24 January 2021, online – Convener and speaker

MedCLIVAR 2020 Conference "*Climate Change in the Mediterranean Region; Lessons Learned and New Perspectives from Regional to Local Scales*", rescheduled to 2021, Marrakesh, Morocco – Convener

*2nd Euro-Mediterranean Conference for Environmental Integration*, 10-13 October 2019, Sousse, Tunisia, Convener, Keynote speaker, Chair Track 5 Climate-change-related effects on the environment and ecological systems

Summer School "*Climate Change Impacts on the MED-Agro-Food Chain*", 9-14 September 2019, Schloss Rauschholzhausen, Germany – Chair organiser, fund raising (13'000 EUR)

MedCLIVAR 2016 Conference "*Mediterranean Climate: Learning from the Past, Perceiving the Present, Engaging for the Future*", 26-30 September 2016, Athens, Greece – Programme Committee and Organising Committee member

Conference "*Adaptation strategies to global environmental change in the Mediterranean City and the role of Global Earth Observations*", Greek EU Presidency Event, June 2014, Athens, Greece – Chair organiser, convener

Workshop "*Mediterranean Holocene climate and human societies*", April 2014, Navarino Dunes, Costa Navarino, Messenia, Greece – Organiser, convener and speaker

MedCLIVAR 2014 Conference "*Understanding Climate Evolution and Effects on Environment and Societies in the Old World Region*", 23-25 June 2014, Ankara, Turkey – organizer, convener, speaker

MedCLIVAR conference 2012 "*The climate of the Mediterranean region: understanding its evolution and effects on environment and societies*" September 2012, Madrid, Spain – Convener

Council for Watershed Health conference "*The Mediterranean City: A Conference on Climate Change Adaptation*" June 2012, Los Angeles, USA – Convener and speaker

ESF-MedCLIVAR Conference "*Mediterranean Climate: from past to future*" June 2011, Lecce, Italy – Convener and speaker

Symposium "*The Medieval Warm Period Redux – Where and when was it warm?*", September 2010, Lisbon, Portugal – Organiser, convener and speaker

International Conference "*Energy, water & climate change in the Mediterranean & Middle East, EWACC2010*", January 2010, Nicosia, Cyprus – Organiser and convener

Workshop "*Impacts of Mediterranean climate change on human health*", October 2009, Paphos, Cyprus – Organiser, convener and speaker

ESF Workshop "*Understanding the mechanisms responsible for the changes in the Mediterranean Sea circulation and sea level trends*", September/October 2008, Rhodes, Greece – Organiser

First MedCLIVAR Summer School "*Climate Variability over the Mediterranean area: Atmospheric and Oceanic Components*", September 2008, Rhodes, Greece – Organiser and teacher

Symposium "*Extreme climate events during recent millennia and their impact on Mediterranean societies*", September 2008, Athens, Greece – Organiser, convener and speaker

*International NCCR Climate Summer School Series, 2005-2009, Grindelwald and Monte Verita, Switzerland – Organiser and teacher*

Scientific reviewer Climate Dynamics, Geophysical Research Letters, Proceedings of the National Academy of Sciences, Global and Planetary Change, Climatic Change, Quaternary Science Reviews, International Journal of Climatology, Climate Research, Theoretical and Applied Climatology, Natural Hazards and Earth System Sciences, among others  
EU FP7 Evaluator; Climate and Research Fund Austrian Climate

Research Programme (ACRP) Evaluator, 2012-2020; H2020; Hellenic Quality Assurance and Accreditation Agency, Swiss National Science Foundation

### Memberships

American Geophysical Union (AGU), European Geophysical Union (EGU)

### Associated member

Navarino Environmental Observatory (Stockholm University, Academy of Athens, TEMES S.A.)

### Languages

*Greek*: Maternal, fluent verbal and written, *English*: Fluent verbal and written, *German*: Very good verbal and written, *French*: Good verbal and written

## PUBLICATIONS LIST Eleni Xoplaki, PhD

<https://orcid.org/0000-0002-2745-2467>

ISI Web of Science  
(access 2nd December 2021)

Google Scholar  
(access 2nd December 2021)

Peer reviewed publications	79	All	Since 2016
Sum of the times cited	8647	Citations	11756
		h-index	5886
h-index	44	i10-index	45
			37
			66

*Peer reviewed publications (including those submitted and in review)*

Behr, L., Luther, N., Josey, S.A., Luterbacher, J., Wagner, S., and **Xoplaki, E.**, 2021: On the representation of Mediterranean Overflow Waters in Global Climate Models. *J. Phys. Ocean.*, in revision

Logothetis, I., S. Dafka, K. Tourpali, S. Misios, P. Zanis, E. **Xoplaki**, J. Luterbacher, and E. Papagianoulis, 2021: Influence of the Indian Summer Monsoon and ENSO on the Eastern Mediterranean atmospheric circulation in CMIP5 simulations over the 20th century, revised.

Lü, F., Sun, Z., Yuan, K., Hou, X., Wang, M., Cheng J., Cao, X., Ding, W., **Xoplaki, E.**, Luterbacher, J., Hou, J., and Chen, F., 2021: Amplification of Elevation-dependent temperature variability since the Last Glacial Maximum, submitted.

Newfield, T.P., N. Roberts, I. Labuhn, W. Eastwood, H. Elton, D. Fleitmann, I. Izdebski, J. Luterbacher, A. Rosen, and E. **Xoplaki**, 2021: Proxies for Plague? New Approaches in Studying the Causes and Consequences of the First Plague Pandemic. Submitted

1. Yuan, N., F. Xiong, E. **Xoplaki**, W. He, and J. Luterbacher, 2021: A new approach to correct the overestimated persistence in tree-ring width based precipitation reconstructions. *Clim. Dynam.*, <https://doi.org/10.1007/s00382-021-06024-z>.
2. Degroot, D., K. Anchukaitis, M. Bauch, J. Burnham, F. Carnegy, J. Cui, K. de Luna, P. Guzowski, G. Hambrecht, H. Huhtamaa, A. Izdebski, K. Kleemann, E. Moesswilde, N. Neupane, T. Newfield, Q. Pei, E. **Xoplaki**, N. Zappia, 2021: Towards a Rigorous Understanding of Societal Responses to Climate Change. *Nature*, <https://doi.org/10.1038/s41586-021-03190-2>
3. Zhang, M., M.H. Tölle, E. Hartmann, E. **Xoplaki**, and J. Luterbacher. 2021: A sensitivity assessment of COSMO-CLM to different land cover schemes in convection-permitting climate simulations over Europe. *Atmosphere*, <https://doi.org/10.3390/atmos12121595>



4. Keller, M., C. Paulus, and E. **Xoplaki**, 2021: Die Justinianische Pest – Grenzen und Chancen naturwissenschaftlicher Ansätze für ein integratives Geschichtsverständnis. *Evangelische Theologie*, <https://doi.org/10.14315/evth-2021-810509>
5. **Xoplaki**, E., Luterbacher, J., Luther, N., Behr, L., Wagner, S., Jungclaus, J., Zorita, E., Toreti, A., Fleitmann, D., Izdebski, A., and Bloomfield, K. 2021: Hydrological changes in Late Antiquity: spatio-temporal characteristics and socio-economic impacts in the Eastern Mediterranean. In: Erdkamp, P., J. G. Manning, and K. Verboven (Eds.) *Climate Change and Ancient Societies in Europe and the Near East. Diversity in Collapse and Resilience*, Palgrave Studies in Ancient Economies, Palgrave MacMillan, [https://doi.org/10.1007/978-3-030-81103-7\\_18](https://doi.org/10.1007/978-3-030-81103-7_18)
6. Bundo, M., E. de Schrijver, A. Federspiel, A. Toreti, E. **Xoplaki**, J. Luterbacher, O. H. Franco, T. Müller, and A. M. Vicedo-Cabrera, 2021. Ambient temperature and mental health hospitalizations in Bern, Switzerland: A 45-year time-series study, *PLOS One*, <https://doi.org/10.1371/journal.pone.0258302>.
7. Luterbacher, J., E. **Xoplaki**, D. Fleitmann, and A. Izdebski, 2021: Palaeoclimatic conditions during the Byzantium (AD 300-1500) in the Central and Eastern Mediterranean. In: Izdebski A. and J. Preiser-Kapeller (Eds.) *A Companion to the Environmental History of Byzantium*, Brill, in press.
8. Izdebski A., W. J. Eastwood, D. Fleitmann, J. F. Haldon, F. Ludlow, J. Luterbacher, J. Manning, A. Masi, L. Mordechai, T. Newfield, A. Stine, Ç. Şenkul, and E. **Xoplaki**, 2021: History, environment and interdisciplinarity: challenges and opportunities, *Annales. Histoire, Sciences Sociales*, in press.
9. Luterbacher, J., T. P. Newfield, E. Nowatzki, E. **Xoplaki**, N. Luther, M. Zhang, and N. Khelifi, 2020: Past pandemic disease and climate variability across the Mediterranean. *Euro-Mediterranean Journal for Environmental Integration*, <https://doi.org/10.1007/s41207-020-00197-5>
10. Skrynyk, O., J. Luterbacher, R. Allan, D. Boichuk, V. Sidenko, O. Skrynyk, A. Palarz, D. Oshurok, E. **Xoplaki**, and V. Osadchyi, 2020: Ukrainian early (pre-1850) historical weather observations, *Geoscience Data Journal*, <https://doi.org/10.1002/gdj3.108>
11. Dafka, S., D. Akritidis, P. Zanis, A. Pozzer, E. **Xoplaki**, J. Luterbacher, and C., Zerefos, 2021: On the link between the Etesian winds, tropopause folds and tropospheric ozone over the Eastern Mediterranean during summer, *Atmospheric Research*, <https://doi.org/10.1016/j.atmosres.2020.105161>
12. Palarz, A., J. Luterbacher, Z. Ustrnul, E. **Xoplaki**, and D. Celiński-Mysław, 2020: Representation of low-tropospheric temperature inversions in ECMWF reanalyses over Europe. *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab7d5d>
13. Esper, J., L. Klippel, P. J. Krusic, O. Konter, C. C. Raible, E. **Xoplaki**, J. Luterbacher, and U. Büntgen, 2019: Eastern Mediterranean summer temperatures since 730 CE from Mt. Smolikas tree-ring density data. *Climate Dynamics*, <https://doi.org/10.1007/s00382-019-05063-x>
14. Dafka, S., A. Toreti, P. Zanis, E. **Xoplaki**, and J. Luterbacher, 2019: Twenty-first-century changes in the mid-latitude atmospheric circulation and their connection to the eastern Mediterranean winds. *Journal of Geophysical Research-Atmospheres*, <https://doi.org/10.1029/2019JD031203>
15. Ljungqvist, F.C., A. Seim, P. J. Krusic, J. F. González-Rouco, J. P. Werner, E. R. Cook, E. Zorita, J. Luterbacher, E. **Xoplaki**, G. Destouni, E. García Bustamante, C. A. Melo-Aguilar, K. Seftigen, J. Wang, M. H. Gagen, D. Fleitmann, O. Solomina, J. Esper, and

- U. Büntgen, 2019: European warm-season temperature and hydroclimate since 850 CE, *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab2c7e>
16. Duan, J. P., Z. Ma, P. Wu, E. Xoplaki, G. Hegerl, L. Li, A. Schurer, and J. Luterbacher, 2019: Detection of human influences on temperature seasonality from the nineteenth century. *Nature Sustainability*, <https://doi.org/10.1038/s41893-019-0276-4>
  17. Cramer, W., J. Guiot, M. Fader, J. Garrabou, J.-P. Gattuso, A. Iglesias, M.A. Lange, P. Lionello, M.C. Llasat, S. Paz, J. Peñuelas, M. Snoussi, A. Toreti, M.N. Tsimplis, and E. Xoplaki, 2018: Climate change and interconnected risks to sustainable development in the Mediterranean. *Nature Climate Change*, <https://doi.org/10.1038/s41558-018-0299-2>
  18. Duan, J.P., L. Li, Z.G. Ma, J. Esper, U Büntgen, E. Xoplaki, D. Zhang, L. Wang, H. Yin, and J. Luterbacher, 2018: Summer cooling driven by large volcanic eruptions over the Tibetan Plateau. *Journal of Climate*, <https://doi.org/10.1175/JCLI-D-17-0664.1>
  19. Luterbacher, J., and E. Xoplaki, 2018: Palaeoclimatic conditions during the Hellenistic period in the Eastern Mediterranean. In: Zerefos, C.S. and M. V. Vardinoyannis (Eds.) *Hellenistic Alexandria: Celebrating 24 Centuries*, Archaeopress Archaeology, Oxford, UK, pp. 272-279, ISBN 9781789690675
  20. Xoplaki, E., J. Luterbacher, S. Wagner, E. Zorita, F. Fleitmann, J.F. Haldon, J. Preiser-Kapeller, A. Sargent, A., Toreti, S. White, L. Mordechai, D. Bozkurt, S. Akçer, and A. Izdebski, 2018: Climate and societal resilience in the Eastern Mediterranean in the last millennium. *Human Ecology*, <https://doi.org/10.1007/s10745-018-9995-9>
  21. Zhang, H., J.P. Werner, E. García-Bustamante, J.F. González-Rouco, S. Wagner, E. Zorita, K. Fraedrich, J. Jungclaus, X. Zhu, E. Xoplaki, F. Chen, J. Duan, Q. Ge, Z. Hao, M. Ivanov, S. Talento, L. Schneider, J. Wang, B. Yang, and J. Luterbacher, 2018: East Asian warm season temperature variations over the past two millennia. *Nature Scientific Reports*, <https://doi.org/10.1038/s41598-018-26038-8>
  22. Yuan N.M., Y. Huang, J.P. Duan, C.W. Zhu, E. Xoplaki, and J. Luterbacher, 2018: On climate prediction: how much can we expect from climate memory? *Climate Dynamics*, <https://doi.org/10.1007/s00382-018-4168-5>
  23. Dafka, S., A. Toreti, J. Luterbacher, P. Zanis, E. Tyrlis, and E. Xoplaki, 2018: Simulating extreme Etesians over the Aegean and Implications for wind energy production in southeastern Europe. *Journal of Applied Meteorology and Climatology*, <https://doi.org/10.1175/JAMC-D-17-0172.1>
  24. Dafka, S., Toreti, A., Luterbacher, J., Zanis, P., Tyrlis, E., and E. Xoplaki, 2018: On the ability of RCMs to capture the circulation pattern of Etesians. *Climate Dynamics* <https://doi.org/10.1007/s00382-017-3977-2>
  25. PAGES Hydro2k Consortium, including E. Xoplaki, 2017: Comparing data and model estimates of hydroclimate variability and change over the Common Era. *Climate of the Past*, <https://doi.org/10.5194/cp-13-1851-2017>
  26. Duan, J., J. Esper, U. Büntgen, L. Li, E. Xoplaki, H. Zhang, L. Wang, Y. Fang, and J. Luterbacher, 2017: Weakening of annual temperature cycle over the Tibetan Plateau since the 1870s. *Nature Communications*, <https://doi.org/10.1038/ncomms14008>
  27. Luterbacher, J. and coauthors, including E. Xoplaki, 2016: European summer temperatures since Roman times. *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/11/2/024001>
  28. Xoplaki, E., D. Fleitmann, J. Luterbacher, S. Wagner, J. F. Haldon, E. Zorita, I. Telelis, A. Toreti and A. Izdebski, 2016. The Medieval Climate Anomaly and Byzantium: A review of the evidence on climatic fluctuations, economic performance and societal change. *Quaternary Science Reviews*, <https://doi.org/10.1016/j.quascirev.2015.10.004>

29. Holmgren, K., A. Gogou, A. Izdebski, J. Luterbacher, M.-A. Sicre and E. **Xoplaki**, 2016. Mediterranean Holocene climate, environment and human societies. *Quaternary Science Reviews*, <https://doi.org/10.1016/j.quascirev.2015.12.014>
30. Izdebski, A., K. Holmgren, E. Weiberg, S. R. Stocker, U. Büntgen, A. Florenzano, A. Gogou, S. A. G. Leroy, J. Luterbacher, B. Martrat, A. Masi, A. M. Mercuri, P. Montagna, L. Sadori, A. Schneider, M.-A. Sicre, M. Triantaphyllou and E. **Xoplaki**, 2016. Realising consilience: How better communication between archaeologists, historians and natural scientists can transform the study of past climate change in the Mediterranean. *Quaternary Science Reviews*, <https://doi.org/10.1016/j.quascirev.2015.10.038>
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