

CURRICULUM VITAE Eleni Xoplaki, PhD

Personal details

Name Eleni Xoplaki
Work CMCC Foundation
Address Euro-Mediterranean Center on Climate Change
Viale Carlo Berti Pichat no. 6, 40127 Bologna BO, Italy
elena.xoplaki@cmcc.it

Current activities

Senior Scientist CLIVAP Division, Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)

Fellow of the European Academy of Sciences (EurASc)

Scientific Advisor of the Hong Kong Observatory

Member of the Governing Council of the Hellenic Open University

Vice-Chair ITU/UNEP/UNFCCC/UPU/WMO Global Initiative Resilience to natural hazards through AI solutions

Expert group on climate change and price stability, European Central Bank (ECB)

Coordinator WG6 "Silk Road Civilization and Environment", Alliance of International Science Organizations (ANSO) Association for Trans-Eurasia Exchange and Silk-Road Civilization Development (ATES)

Expert, Reviewer and Evaluator of European Union scientific programs (H2020, HEurope)

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

Employment history

11.2025 – Senior Scientist, Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici, Bologna, Italy

- 2020 – 10.2025 Acting Head of the Climatology, Climate Dynamics and Climate Change group Justus Liebig University of Giessen
- 2011 – 08.2025 Akademische Rätin (permanent), deputy head of the Climatology/Climate Dynamics and Climate Change group
PI of national and international research projects (details under Projects section below)
Teaching: BSc and MSc: Mediterranean Climate Change; Climate Change and Human Health; The southern Pacific Island countries; Climate, Climate Change Impacts; Science & Scientific Communication.
Staff management & supervision: Currently 8 postdoctoral researchers, 5 doctoral students, 4 MSc students, 2 BSc students, 1 administration personnel.
Administration & Budget: Securing research funding, organizing conferences, workshops, and meetings; overseeing international exchange programs for researchers and students; contributing to the university's internationalization strategy; engaging in capacity building and cooperative initiatives with China, Namibia, and South Africa.
- 2.2010 – 7.2011 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 Center, 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, Switzerland
- 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

Stays abroad

- 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"

Professional activities; Memberships, Steering Committee Member

- Member of the Governing Council of the Hellenic Open University
- Vice-Chair ITU/UNEP/UNFCCC/UPU/WMO Global Initiative on Resilience to Natural Hazards through AI Solutions, <https://www.itu.int/en/ITU-T/extcoop/ai4resilience/Pages/default.aspx>
- Fellow of the European Academy of Sciences (EurASc), <https://www.eurasc.org/>
- Co-coordinator WG6 "Silk Road Civilization and Environment", Alliance of International Science Organizations (ANSO) Association for Trans-Eurasia Exchange and Silk-Road Civilization Development (ATES), <http://ates.ac.cn/EN/>
- Climate Change and History Research Initiative (-ongoing): 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/>
- International Panel on Environmental History & Policy (EnvHist4P), Princeton University, Max Planck Institute of Geoanthropology, Leibniz Association. Project member, <https://envhist4p.org>
- American Geophysical Union (AGU), European Geosciences Union (EGU)
- Navarino Environmental Observatory (Stockholm University, Academy of Athens, TEMES S.A.), <https://www.navarinoneo.se/>
- 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, 2020-2025 <https://www.uni-giessen.de/de/fbz/zentren/zeu>
- Visiting Professor of the Key Laboratory of Western China's Environmental Systems, Ministry of Education, Lanzhou University, 2023-2026, <https://en.lzu.edu.cn/static/z/80.html>
- Lead author Mediterranean Assessment Report 2020 (MAR1) Chapter Challenges of Climate and Environmental Changes, <https://www.medecc.org/first-mediterranean-assessment-report-mar1/>
- *2020 North-South Prize of the Council of Europe* awardee
- Steering Committee Member (2015 – 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/>

Scientific Projects / Grants since 2011 including sum of grants and role (PI, Co-PI)

EUROpest: A Novel Understanding of Pandemic Disease in Preindustrial Europe (1300-1800): Combining History, Machine Learning and Natural Sciences. ERC Synergy (ERC-2024-SyG), 2025-2031

ARTEMis: AlERT and impact-forecast standards for Emergency Management, PI; HORIZON Europe, 2025-2028

CriSES: Understanding System Collapse: crisis and recovery in the social-ecological systems of premodern Brandenburg and Greater Poland, PI; DFG (German Science Foundation research project), 2025-2028 @JLU

CARMINE: Climate-Resilient Development Pathways in Metropolitan Regions of Europe, PI; HORIZON Europe, 2024-2027

MedEWsa: Mediterranean and pan-European forecast and Early Warning System against natural hazards, PI; HORIZON Europe, 2023-2026

SCEWERO: Strengthening the Capacities on Extreme Weather Events in Romania, PI; HORIZON Europe, 2024-2027

ClimXtreme II, Modul C "Impacts" - **CROP4Europe:** Compound Events und ihre Auswirkungen auf die Nutzpflanzen Europas (Compound Events and their Effects on Crops in Europe), PI; Federal Ministry of Education and Research (BMBF), 2023-2026 @JLU

NUKLEUS2: Verbundprojekt RegIKlim: Nutzbare Lokale Klimainformationen für Deutschland (Actionable Local Climate Information for Germany; NUKLEUS2), Teilprojekt 6: KI-gestützte Aufarbeitung der Klimadaten für die Wirkmodelle (AI-based processing of climate data for the impact models); PI; Federal Ministry of Education and Research (BMBF), 2023-2026 @JLU

CLINT: CLiimate INTelligence: extreme events detection, attribution and adaptation design using machine learning, PI; H2020, 2021-2025 @JLU

BIOVALUE: Fork-to-farm agent-based simulation tool augmenting BIOdiversity in the agri-food VALUE chain, PI; H2020, 2021-2025 @JLU

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

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

NUKLEUS: Nutzbare Lokale Klimainformationen für Deutschland (Actionable Local Climate Information for Germany); 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

UK Met Office: **CSSP** China Historical station data digitisation & **WCSSP** South Africa Digitisation of the historical marine weather observations from ship log book. 2020-2023

Regional Palaeoclimate in the EMME and the Nile basin based on COSMO-CLM. Ongoing since 2020. PI; Justus Liebig University Giessen: 2 PhD students, German Climate Computing Center (DKRZ)

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

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

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

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

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

IGBP-PAGES Workshop grant for the Workshop "*Mediterranean Holocene climate and human societies*", April 2014, Navarino Dunes, Costa Navarino, Messinia, Greece

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

CLIM-RUN: Climate Local Information in the Mediterranean region: Responding to User Needs, FP7-EU *project acquisition*; retained for implementation by the Cyprus Institute, Nicosia, Cyprus, 2011-2014

Scientific reviewer and Editor

- 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", 79, Issue 1-2, 2006
- 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: Horizon Europe; H2020; Erasmus+; EU FP7; Climate and Research Fund Austrian Climate Research Programme (ACRP), 2012-2020; Hellenic Quality Assurance and Accreditation Agency, Swiss National Science Foundation

Conferences & Meetings (Organizer, Convener) since 2011

Workshop "AI for Natural Disaster Management", 24 October 2022, Hellenic Ministry of Digital Governance, Athens, Greece

Workshop "*Climate change and ancient Peloponnesian realities: a WORKshop for linking climate model output with local archaeological information*", 11-15 April 2022, Navarino Dunes, Navarino Environmental Observatory, Messenia, Greece

MedCLIVAR 2020 Conference "*Climate Change in the Mediterranean Region; Lessons Learned and New Perspectives from Regional to Local Scales*", rescheduled to 4-8 October 2022, Marrakesh, Morocco

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

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

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

MedCLIVAR 2016 Conference "Mediterranean Climate: Learning from the Past, Perceiving the Present, Engaging for the Future", 26-30 September 2016, Athens, Greece

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

Conference "Adaptation strategies to global environmental change in the Mediterranean City and the role of Global Earth Observations", Greek EU Presidency Event, 9-11 June 2014, Athens, Greece

Workshop "Mediterranean Holocene climate and human societies", April 2014, Navarino Dunes, Costa Navarino, Messenia, Greece

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

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

ESF-MedCLIVAR Conference "Mediterranean Climate: from past to future" June 2011, Lecce, Italy

Languages

Greek: native, fluent verbal and written, ***English***: fluent verbal and written, ***German***: very good verbal and written, ***French***: good verbal and written

PUBLICATION LIST Eleni Xoplaki, PhD

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

ISI Web of Science (access December 2025)		Google Scholar (access December 2025)		
Peer reviewed publications	111	All	Since 2020	
Sum of the times cited	13780	Citations	22988	9855
		h-index	68	51
h-index	55	i10-index	118	103

Peer reviewed publications (including accepted and in press)

Albayrak, A., et al., including **Xoplaki, E.**, 2025: Navigating the Complexities of Digital Technologies: AI/ML and Data in the Face of Natural Hazards. *accepted*

Skrynyk, O., Luterbacher, J., Allan, R., Sidenko, V., Saloid, K., Pinchuk, D., **Xoplaki, E.**, Skrynyk, O., and Osadchyi, V., 2025: Early (1808-1880) instrumental weather observations from the Ukraine. *accepted*

1. Hartmann, E., M. Zhang, S. Wagner, M. Adakudlu, J. Luterbacher, and **E. Xoplaki**, 2025: On the implementation of external forcings in a regional climate model – a sensitivity study around the Samalas volcanic eruption in the Eastern Mediterranean/Middle East. *Climate of the Past*, <https://doi.org/10.5194/cp-21-1699-2025>
2. Stathakopoulos, D., T.P. Newfield, **E. Xoplaki**, J. Haldon, M. Keller, N. Roberts, C. Bourbou, L. Mordechai, C. Paulus, I. Grimm-Stadelmann, E. Hartmann, J. Luterbacher, N. Luther, K. Sessa, D. Slootjes, and M. Zhang, 2025: The First Plague Pandemic in the Byzantine Empire – Toward a New Dynamic Consensus. *Human Ecology*, <https://doi.org/10.1007/s10745-025-00612-x>
3. Kempf, M., M.L.C. Depaermentier, R.N. Spengler III, M.D. Frachetti, F. Chen, J. Luterbacher, **E. Xoplaki**, and U. Büntgen, 2025: Hydroclimatic instability accelerated the socio-political decline of the Tang Dynasty in northern China. *Communications Earth & Environment*, <https://doi.org/10.1038/s43247-025-03038-x>
4. Nava, L., M.M. Kuglitsch, J. Selby, A. Bray, P. Kennedy, J. Lontsi, M. Yates, A. Tambal, A. Ilmane, A. Manara, T. Basikolo, K. Weitz, A. Albayrak, C. Karwatowski, R. Babamaaji, S. Garcia, **E. Xoplaki**, S. Uhlenbrook, P.-P. Mathieu, R. Albano, A. Toreti, and F. Catani, 2025: Introducing AI practitioners to international standards through online competitions. *npj Natural Hazards*, <https://doi.org/10.1038/s44304-025-00154-8>
5. Behr, L., **E. Xoplaki**, N. Luther, S. Josey, and J. Luterbacher, 2025: Atmospheric patterns drive marine heatwaves in the North Atlantic and Mediterranean Sea during summer 2023. *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ae0055>

6. Marina, C.M., J. Perez-Aracil, R. McAdam, E. Lorente-Ramos, N. Luther, E. Zorita, E. Scoccimarro, J. Luterbacher, E. **Xoplaki**, and S. Salcedo-Sanz, 2025: Detection and attribution of Heat Waves with the Multivariate Autoencoder Flow-Analogue Method (MvAE-AM). *Atmospheric Research*, <https://doi.org/10.1016/j.atmosres.2025.108409>
7. Preiser-Kapeller, J., W.A. McGrath, R. Pfister, S. Gong, M. Keller, T.P. Newfield, U. Schamiloglu, U. Büntgen, M.A. Spyrou, B. Averbuch, F. Chen, N. Schindel, H. Xie, and E. **Xoplaki**, 2025: The Circulation of *Yersinia pestis* in Central Eurasia before and during the First Plague Pandemic (Second to Eighth Century CE): Palaeogenetic and Historical Evidence and Sociopolitical, Ecological, and Climatic Factors. *Human Ecology*, <https://doi.org/10.1007/s10745-025-00617-6>
8. Pérez-Aracil, J., C. Peláez-Rodríguez, R. McAdam, A. Squintu, C.M. Marina, E. Lorente-Ramos, N. Luther, V. Torralba, E. Scoccimarro, L. Cavicchia, M. Giuliani, E. Zorita, F. Hansen, D. Barriopedro, R. García-Herrera, P.A. Gutiérrez, J. Luterbacher, E. **Xoplaki**, A. Castelletti, and S. Salcedo-Sanz, 2025: Identifying key drivers of heatwaves: A novel spatio-temporal framework for extreme event detection, *Weather and Climate Extremes*, <https://doi.org/10.1016/j.wace.2025.100792>.
9. **Xoplaki**, E., F. Ellsäßer, J. Grieger, K.M. Nissen, J.G. Pinto, M. Augenstein, T.-C. Chen, H. Feldmann, P. Friederichs, G. Glikzman, L. Goulier, H. Haustein, J. Heinke, L. Jach, F. Knutzen, S. Kollet, J. Luterbacher, N. Luther, S. Mohr, C. Mudersbach, C. Müller, E. Rousi, F. Simon, L. Suarez-Gutierrez, S. Szemkus, S.M. Vallejo-Bernal, O. Vlachopoulos, and F. Wolf, 2025: Compound events in Germany in 2018: drivers and case studies. *Nat. Hazards Earth Syst. Sci.* 25, <https://doi.org/10.5194/nhess-25-541-2025>
10. Solovieva, I., P. Miteva-Bölter, M. Knez, A.-K. Bessai, E. Barilli, N. Kasperczyk, M. Ranic, M. Gurinovic, P. J. Luna Casado, N. Alba Morales, M. Sanchez, C. Tisseyre, B. Schaer, and E. **Xoplaki**, 2025: Exploring the Potential and Challenges of *Lathyrus sativus* (Grass Pea) in European Agri-Food Value Chains: A Cross-Country Analysis. *Sustainability*, 17, 3283, <https://doi.org/10.3390/su17083283>
11. Deng, G., M. Li, Z. Hao, X. Shao, and E. **Xoplaki**, 2025: Elevational gradients and species similarities of climate responses for conifers in the southeastern Tibetan Plateau. *Forest Ecology and Management* 586, 122723, <https://doi.org/10.1016/j.foreco.2025.122723>
12. Sun, W. Y., B. Wang, J. Liu, D. A. Bello, U. Büntgen, E. **Xoplaki**, D. L., Chen, H. Shi, and N. Di Cosmo, 2025: Impact of the centennial changes in ENSO on the rise of the Chinese Qing empire, *npj Clim. Atmos. Sci.* 8 (61), <https://doi.org/10.1038/s41612-025-00950-z>
13. Qin, C., B. Yang, A. Bräuning, F. Charpentier Ljungqvist, T.J. Osborn, V. Shishov, M. He, S. Kang, L. Schneider, J. Esper, U. Büntgen, J. Griesinger, D. Huang, P. Zhang, S. Talento, E. **Xoplaki**, J. Luterbacher, and N.C. Stenseth, 2025: Persistent humid climate favored the Qin and Western Han Dynasties in China around 2,200 y ago, *Proc. Natl. Acad. Sci. U.S.A.* 122 (1) e2415294121, <https://doi.org/10.1073/pnas.2415294121>
14. Knutzen, F., P. Averbuch, C. Barrasso, L.M. Bouwer, B. Gardiner, J.M. Grünzweig, S. Hänel, K. Haustein, M.R. Johannessen, S. Kollet, M.M. Müller, J.-P. Pietikäinen, K. Pietras-Couffignal, J.G. Pinto, D. Rechid, E. Rousi, A. Russo, L. Suarez-Gutierrez, S. Veit, J. Wendler, E. **Xoplaki**, and D. Glikzman, 2025: Impacts on and damage to European forests from the 2018–2022 heat and drought events, *Nat. Hazards Earth Syst. Sci.*, <https://doi.org/10.5194/nhess-25-77-2025>

15. Boening, A., M. Brühl, C. Büsch, N. Luther, **E. Xoplaki**, R. Arif, T. Noack, J. Pöling, M. Czerny, J. Brickwedel, S. Peterss, T. Holubec, P. Jawny, for the GERAADA Study Group, 2025: Do the frequency of aortic dissection surgery and 30-day survival depend on the day of the week, climate parameters, or moon phase? *The Thoracic and Cardiovascular Surgeon*, <https://doi.org/10.1055/a-2547-5604>
16. Ma, S., S. Chen, J. Chen, J. Chen, D. Cao, **E. Xoplaki**, J. Luterbacher, F. Chen, W. Huang, 2025: The Holocene precipitation dipole pattern in the Asian drylands: mechanisms and processes from PMIP₄ simulations and paleo-proxy evidence. *Quaternary Science Reviews*, <https://doi.org/10.1016/j.quascirev.2024.109091>
17. Newfield, T.P., N. Roberts, **E. Xoplaki**, J. Luterbacher, I. Labuhn, W. Eastwood, H. Elton, D. Fleitmann, A. Izdebski, and A. Rosen, 2024: Proxies for Plague? New Approaches in Studying the Causes and Consequences of the First Plague Pandemic. In W. Brandes, H. Reimitz, & J. Tannous (Eds.), *Legal Pluralism and Social Change in Late Antiquity and the Middle Ages: A Conference in Honor of John Haldon* (pp. 63–115). Nomos. <https://doi.org/10.5771/9783465145509>
18. Kuglitsch, M.M., J. Cox, J. Luterbacher, B. Jamoussi, **E. Xoplaki**, M. Thummarukudy, G.S. Radwan, S. Yasukawa, S.N. McClain, R.A. Albayrak, D. Oehmen, and T. Ward, 2024: AI to the rescue: enhance disaster warnings with tech tools. *Nature* 634, 27-29, <https://doi.org/10.1038/d41586-024-03149-z>
19. Luterbacher, J., R. Allan, C. Wilkinson, E. Hawkins, P. Teleti, A. Lorrey, S. Brönnimann, P. Hechler, K. Velikou, and **E. Xoplaki** 2024: The Importance and Scientific Value of Long Weather and Climate Records; Examples of Historical Marine Data Efforts across the Globe. *Climate*, <https://doi.org/10.3390/cli12030039>
20. Luterbacher, J., **E. Xoplaki**, A. Izdebski, and D. Fleitmann, 2024: 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*, Leiden, The Netherlands. Brill, https://doi.org/10.1163/9789004689350_003
21. Kuglitsch, M., A. Albayrak, J. Luterbacher, A. Craddock, A. Toreti, J. Ma, P. Padrino Vilela, **E. Xoplaki**, R. Kotani, D. Berod, J. Cox, and I. Pelivan 2023: When it comes to Earth observations in AI for disaster risk reduction, is it feast or famine? A topical review. *Environmental Research Letters*, 18, 093004, <https://doi.org/10.1088/1748-9326/acf601>
22. Rousi, E., Fink, A. H., Andersen, L. S., Becker, F. N., Beobide-Arsuaga, G., Breil, M., Cozzi, G., Heinke, J., Jach, L., Niermann, D., Petrovic, D., Richling, A., Riebold, J., Steidl, S., Suarez-Gutierrez, L., Tradowsky, J. S., Coumou, D., Düsterhus, A., Ellsäßer, F., Fragkoulidis, G., Gliksman, D., Handorf, D., Haustein, K., Kornhuber, K., Kunstmann, H., Pinto, J. G., Warrach-Sagi, K., and **Xoplaki**, E. 2023: The extremely hot and dry 2018 summer in central and northern Europe from a multi-faceted weather and climate perspective. *Natural Hazards and Earth System Sciences*, 23, 1699–1718, <https://doi.org/10.5194/nhess-23-1699-2023>
23. Zittis, G., M. Almazroui, P. Alpert, P. Ciais, W. Cramer, Y. Dahdal, M. Fnais, D. Francis, P. Hadjinicolaou, F. Howari, A. Jrrar, D. G. Kaskaoutis, M. Kulmala, G. Lazoglou, N. Mihalopoulos, X. Lin, Y. Rudich, J. Sciare, G. Stenchikov, **E. Xoplaki**, and J. Lelieveld, 2022: Climate change and weather extremes in the Eastern Mediterranean and Middle East. *Reviews of Geophysics*, <https://doi.org/10.1029/2021RG000762>
24. Behr, L., N. Luther, S.A. Josey, J. Luterbacher, S. Wagner, and **E. Xoplaki**, 2022: On the representation of Mediterranean overflow waters in global climate models. *Journal of Physical Oceanography*, <https://doi.org/10.1175/JPO-D-21-0082.1>

25. Kuglitsch, M.M., I. Pelivan, S. Ceola, M. Menon, and E. **Xoplaki**, 2022: Facilitating adoption of AI in natural disaster management through collaboration. *Nature Communications* 13, 1579, <https://doi.org/10.1038/s41467-022-29285-6>
26. Ibebuchi, C.C., D. Schönbein, M. Adakudlu, E. **Xoplaki**, and H. Paeth, 2022: Comparison of three techniques to adjust daily precipitation biases from regional climate models over Germany. *Water* 14, 600, <https://doi.org/10.3390/w14040600>
27. Izdebski, A., K. Bloomfield, W. Eastwood, R. Fernandes, D. Fleitmann, P. Guzowski, J. Haldon, F. Ludlow, J. Luterbacher, J. Manning, A. Masi, L. Mordechai, T. Newfield, A. Stine, Ç. Şenkul, and E. **Xoplaki** (2022). L'émergence d'une histoire environnementale interdisciplinaire: Une approche conjointe de l'Holocène tardif. *Annales. Histoire, Sciences Sociales*, 77, 11-58. <https://doi.org/10.1017/ahss.2022.114>
28. Logothetis, I., S. Dafka, K. Tourpali, S. Misios, P. Zanis, E. **Xoplaki**, J. Luterbacher, and E. Papagianoulis, 2022: The Southeast Asian monsoon and El Niño–Southern Oscillation impact on the summer atmospheric circulation of East Mediterranean during 20th century based on ERA-20C and CMIP5 simulations. *International Journal of Climatology*, <https://doi.org/10.1002/joc.7510>
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