

## Curriculum Vitae

### **Eleni Katragkou**

Professor  
School of Geology  
Aristotle University of Thessaloniki (AUTH)

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**October 2025**

## Education

**2001–2003 – Doctorate (Dr. rer. nat.),** School of Physics and Astronomy, **Heidelberg University**, Germany

**Thesis:** *Aircraft-based measurements of atmospheric sulfur dioxide and ground-based measurements of gaseous S(VI) in the simulated internal flow of an aircraft engine: Implications for atmospheric aerosol formation.*

**1998–2000 – MSc in Atmospheric Physics,** School of Physics, Faculty of Sciences, **Aristotle University of Thessaloniki**, Greece

*Grade: Excellent (9.56/10)*

**1994–1998 – BSc in Physics,** School of Physics, Faculty of Sciences, **Aristotle University of Thessaloniki**, Greece

*Grade: Very Good (8.09/10)*

## Foreign Languages

- **English:** Excellent (Cambridge Certificate of Proficiency in English)
- **German:** Excellent (Grosses Sprachdiplom, Goethe-Institut)
- **Spanish:** Good (Diploma de Español – Intermediate Level, Instituto Cervantes)

## Academic Experience

### June 2024 – present

Appointed as **Professor** in *Physical Climatology – Climate Models*,  
Department of Meteorology and Climatology,  
School of Geology, Aristotle University of Thessaloniki (AUTH), Greece

### April 2020

Appointed as **Associate Professor** in *Physical Climatology – Climate Models*,  
Department of Meteorology and Climatology, School of Geology, Aristotle University of  
Thessaloniki, Greece

### October 2015

Appointed as **Assistant Professor** in *Physical Climatology – Climate Models*,  
Department of Meteorology and Climatology, School of Geology, Aristotle University of  
Thessaloniki, Greece

### January 2014

Appointed as **Lecturer** in *Physical Climatology – Climate Models*,  
Department of Meteorology and Climatology, School of Geology, Aristotle University of  
Thessaloniki, Greece

### 2005–2010

**Researcher**, Laboratory of Atmospheric Physics, School of Physics, Aristotle University of  
Thessaloniki, Greece

### 2008–2010

**Collaborating Researcher**, Laboratory of Climatology,  
Department of Geology, National and Kapodistrian University of Athens, Greece

### January–May 2005

**Visiting Researcher**, Max Planck Institute for Meteorology, Hamburg, Germany

### August–December 2004

**Visiting Researcher**, Dalhousie University, Department of Physics and Atmospheric Sciences,  
Halifax, Canada

### December 2003 – May 2004

**Postdoctoral Researcher**, Max Planck Institute for Nuclear Physics, Department of  
Atmospheric Physics, Heidelberg, Germany

### September – December 2000

**Research Associate**, Laboratory of Heat Transfer and Environmental Engineering,  
Department of Mechanical Engineering, Faculty of Engineering,  
Aristotle University of Thessaloniki

## Scholarships, Awards, and Distinctions

### January 2022

 *Horizon 2020 European Innovation Council (EIC) – 1st Prize for Early Warning for Epidemics*

Principal Investigator (PI) in one of the participating teams (total prize value: €5 million)

### November 2012

 *National L'Oréal–UNESCO Award for Women in Science* (Field: Physical Sciences)

### December 2010

 *Postdoctoral Research Excellence Scholarship*

Awarded by the Research Committee of Aristotle University of Thessaloniki (AUTH)

### May 2009

 *1st EURASAP Prize – Best Paper by a Young Scientist*

30th NATO/SPS International Technical Meeting on Air Pollution Modelling and Its Application, 18–22 May 2009, San Francisco, USA

### May 2008

 *Best Paper Award – Young Scientist*

Hellenic Meteorological Society, 9th Conference on Meteorology, Climatology and Atmospheric Physics, 28–31 May 2008

### 1999–2000

 *State Scholarship Foundation (IKY) Award for Academic Excellence – Postgraduate Studies*

### 1995–1996

 *State Scholarship Foundation (IKY) Award for Academic Excellence – Undergraduate Studies*

## Administrative Work

At Aristotle University of Thessaloniki (AUTH)

**July 2024 – present**

**Vice President**, Centre for Interdisciplinary Research and Innovation ([CIRI-AUTH](#))

**2021 – present**

**Member**, Committee of the Centre for Interdisciplinary Research and Innovation ([CIRI-AUTH](#))

**2019–2020**

**Member**, Committee for Gender Equality and Anti-Discrimination, AUTH

At the Faculty of Sciences

**2018–2020 and 2023 – February 2025**

**Coordinator**, Committee for Gender and Equality – Faculty of Sciences

At the School of Geology

**September 2023 – August 2025**

**Director**, Division of Meteorology and Climatology, Department of Geology, AUTH

## PUBLICATIONS IN PEER REVIEW JOURNALS

[ORCIDiD](#) || [Scopus ID](#)

1. **Katragkou E.**, S. Wilhelm, F. Arnold, C. Wilson, First gaseous sulfur (VI) measurements in the simulated internal flow of an aircraft gas turbine engine during project PartEmis, *Geophysical Research Letters*, 31, L022117, doi: 10.1029/2003GL018231, 2004.
2. Sorokin A., **E. Katragkou**, F. Arnold, R. Busen, U. Schumann, Gaseous SO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub> in the exhaust of an aircraft gas turbine engine: Measurements by CIMS and implications for fuel sulfur conversion to sulfur (VI) and conversion of SO<sub>3</sub> to H<sub>2</sub>SO<sub>4</sub>, *Atmospheric Environment*, 38, 449–456, 2004.
3. Petzold A, M Fiebig, L Fritzsche, C Stein, U Schumann, CW Wilson, CD Hurley, F Arnold, **E Katragkou**, U Baltensperger, M Gysel, S Nyeki, R Hitzenberger, H Giebl, KJ. Hughes, R Kurtenbach, P Wiesen, P Madden, H Puxbaum, S Vrchoticky, C Wahl, Particle emissions from aircraft engines – a survey of the European project PartEmis, *Meteorologische Zeitschrift*, 14, (4) 465-476, 2005.
4. Zanis P, **E. Katragkou**, K. Markakis, I. Lysaridis, A. Poupkou, D. Melas , M. Kanakidou, B. Psiloglou, E. Gerasopoulos, C. Zerefos, S. Karathanasis, Effects on surface atmospheric photo-oxidants over Greece during the total solar eclipse event of 29 March 2006, *Atmospheric Chemistry and Physics*, 7, pp. 6061-6073, 2007
5. Amiridis V., D. Melas, D.S. Balis, A. Papayannis, D. Founda, E. Katragkou, R. Mamouri, E. Giannakaki, S. Kazadzis, E. Gerasopoulos and C. Zerefos, Aerosol Lidar observations and model calculations of the Planetary Boundary Layer evolution over Greece, during the solar eclipse of 2006, *Atmospheric Chemistry and Physics*, 7, pp. 6181-6189, 2007
6. Krueger, B.C., **E. Katragkou**, I. Tegoulis, P. Zanis, D. Melas, E. Coppola, S. A. Rauscher, P. Huszar, T. Halenka. Regional decadal photochemical model calculations for Europe concerning ozone levels in a changing climate. *Időjárás - Quarterly Journal of the Hungarian Meteorological Service*, 112, 3-4, pp. 285-300, 2008
7. **Katragkou E.**, S. Kazadzis, V. Amiridis, V. Papaioannou, S. Karathanasis, D. Melas, PM10 regional transport pathways in Thessaloniki, Greece, *Atmospheric Environment.*, 43, 1079-1085, doi:10.1016/j.atmosenv.2008.11.021, 2009
8. Zyrichidou I., M. E. Koukouli, D. S. Balis, **E. Katragkou**, D. Melas, A. Poupkou, I. Kioutsioukis, R. van der A, F. K. Boersma, M. van Roozendaal, A. Richter, Satellite observations and model simulations of tropospheric NO<sub>2</sub> columns over South-eastern Europe, *Atmospheric Chemistry and Physics*, 9, 6119-6134, 2009
9. Ordóñez C., N. Elguindi, O. Stein, V. Huijnen, J. Flemming, A. Inness, H. Flentje, **E. Katragkou**, P. Moinat, V-H. Peuch, A. Segers, V. Thouret, M. van Weele, C. S. Zerefos, J-P. Cammas, and M. G. Schultz, Global model simulations of air pollution during the 2003 European heat wave, *Atmospheric Chemistry and Physics*, 10, 789–815, 2010
10. **Katragkou E.**, P. Zanis, I. Tegoulis, D. Melas, I. Kioutsioukis, B. C. Krüger, P. Huszar, T. Halenka, S. Rauscher, Decadal regional air quality simulations over Europe in present climate: near surface ozone sensitivity to external meteorological forcing, *Atmospheric Chemistry and Physics*, 10, (23) 11805-11821, 2010.
11. Papanastasiou D.K., A. Poupkou, **E. Katragkou**, V. Amiridis, D. Melas, N. Mihalopoulos, S. Basart, C. Perez, J.M. Baldasano, An assessment of the efficiency of dust regional modelling to predict Saharan dust transport episodes, *Advances in Meteorology*, vol. 2010, Article ID 154368, 9 pages, doi:10.1155/2010/154368, 2010.

12. Syrakov D., V. Spiridonov, M. Prodanova, A. Bogatchev, N. Miloshev, K. Ganey, G. Jordano, **E. Katragkou**, D. Melas, A. Poupkou, K. Markakis, R. San Jose, J.L. Perez, A system for assessment of climatic air pollution levels in Bulgaria. Description and validation, *International Journal of Environment and Pollution*, 46 (1/2), pp. 18-42, 2011
13. Huszar P., K. Juda-Rezler, T. Halenka, H. Chervenkov, D. Syrakov, B. C. Krueger, P. Zanis, D. Melas, **E. Katragkou**, M. Reizer, W. Trapp, M. Belda, Effects of climate change on ozone and particulate matter over Central and Eastern Europe, *Climate Research*, 50 (1), pp. 51–68, doi: 10.3354/cr01036, 2011
14. **Katragkou E.**, P. Zanis, I. Kioutsioukis, I. Tegoulis, D. Melas, B.C. Krüger, E. Coppola, Future climate change impacts on summer surface ozone from regional climate-air quality simulations over Europe, *Journal of Geophysical Research*, 116 (22), doi:10.1029/2011JD015899, 2011
15. Zanis P., **E. Katragkou**, I. Tegoulis, A. Poupkou, D. Melas, Evaluation of near surface ozone in air quality simulations forced by a regional climate model over Europe for the period 1991-2000, *Atmospheric Environment*, 45 (36), pp. 6489-6500, 2011
16. Juda-Rezler K., M. Reizer, P. Huszar, B. C. Krüger, P. Zanis, D. Syrakov, **E. Katragkou**, W. Trapp, D. Melas, H. Chervenkov , I. Tegoulis, T. Halenka, Modelling the effects of climate change on air quality over Central and Eastern Europe: Concept, evaluation and projections, *Climate Research*, 53 (3), pp. 179-203, 2012.
17. Zyrichidou I., M.E. Koukouli, D. Balis, I. Kioutsioukis, A. Poupkou, **E. Katragkou**, D. Melas, F. Boersma, M. van Roozendaal, Evaluation of high resolution simulated and OMI retrieved tropospheric NO<sub>2</sub> column densities over South-Eastern Europe, *Atmospheric Research*, 122, pp. 55-56, 2013.
18. Markakis, K., **E. Katragkou**, A. Poupkou, D. Melas, MOESS: A New Emission Model for the Compilation of Model-Ready Emission Inventories-Application in a Coal Mining Area in Northern Greece, *Environmental Modeling and Assessment*, 18 (5), pp. 509-521, 2013
19. Vautard R. , A. Gobiet, D. Jacob, M. Belda , A. Colette, M. Déqué, J. Fernández, M. García-Díez, K. Goergen, I. Güttler, T.Halenka, T. Karacostas, **E. Katragkou**, K. Keuler, S. Kotlarski, S.Mayer, G. Nikulin, M. Patarčić, S. Sobolowski, M. Suklitsch, C.Teichmann, K.Warrach-Sagi, V.Wulfmeyer, P. Yiou, The simulation of European heat waves from an ensemble of regional climate models within the EURO-CORDEX project, *Climate Dynamics*, 41 (9-10), pp. 2555-2575, 2013.
20. Akritidis D., P. Zanis, **E. Katragkou**, M. Schultz, I. Tegoulis, A. Poupkou, K. Markakis, I.Pytharoulis, T. Karacostas, Evaluating the impact of chemical boundary conditions on near surface ozone in regional climate -air quality simulations over Europe, *Atmospheric Research*, 134, pp. 116-130, 2013.
21. Anagnostopoulou C., Zanis P., **Katragkou E.**, Tegoulis I., Tolika K., Recent past and future patterns of the Etesian winds based on regional scale climate model simulations, *Climate Dynamics*, 42 (7-8), pp. 1819-1836, 2014.
22. Zyrichidou I., M.E. Koukouli, D. Balis, K. Markakis, A. Poupkou, **E. Katragkou**, I. Kioutsioukis, D. Melas, F.Boersma, M.Van Roozendaal, Identification of surface NO<sub>x</sub> emission sources on a regional scale using OMI NO<sub>2</sub>, *Atmospheric Environment*, 101, 82-93, 2015.
23. **Katragkou E.**, M. García-Díez, R. Vautard, S. Sobolowski, P. Zanis, G. Alexandri, R. M. Cardoso, A. Colette, J. Fernandez, A. Gobiet, K. Goergen, T. Karacostas, S. Knist, S. Mayer, P. M. M. Soares, I. Pytharoulis, I. Tegoulis, A. Tsikerdekis, D. Jacob, Regional climate hindcast simulations within EURO-CORDEX: Evaluation of a WRF multi-physics ensemble, *Geoscientific Model Development*, 8, 603-618,2015.
24. Flemming J., V. Huijnen, J. Arteta, P. Bechtold, A. Beljaars, A.-M. Blechschmidt, B. Josse, M. Diamantakis, R. J. Engelen, A. Gaudel, A. Inness, L. Jones, **E. Katragkou**, V. Marecal, V.-H.

- Peuch, A. Richter, M. G. Schultz, O. Stein, and A. Tsikerdekis, Tropospheric chemistry in the integrated forecasting system of ECMWF, *Geoscientific Model Development*, 8, 975-1003, 2015
25. Inness, A., Blechschmidt, A.-M., Bouarar, I., Chabrillat, S., Crepulja, M., Engelen, R. J., Eskes, H., Flemming, J., Gaudel, A., Hendrick, F., Huijnen, V., Jones, L., Kapsomenakis, J., **Katragkou, E.**, Keppens, A., Langerock, B., de Mazière, M., Melas, D., Parrington, M., Peuch, V. H., Razinger, M., Richter, A., Schultz, M. G., Suttie, M., Thouret, V., Vrekoussis, M., Wagner, A., and Zerefos, C.: Data assimilation of satellite-retrieved ozone, carbon monoxide and nitrogen dioxide with ECMWF's Composition-IFS, *Atmospheric Chemistry and Physics*, 15, 5275-5303, doi:10.5194/acp-15-5275-2015, 2015.
  26. Zanis P., **E. Katragkou**, C. Ntogras, G. Marougianni, A. Tsikerdekis, H. Feidas, E. Anadranistakis, D. Melas, Transient high-resolution regional climate simulation for Greece over the period 1960–2100: evaluation and future projections, *Climate Research*, 64: 123–140, 2015.
  27. **Katragkou, E.**, Zanis, P., Tsikerdekis, A., Kapsomenakis, J., Melas, D., Eskes, H., Flemming, J., Huijnen, V., Inness, A., Schultz, M.G., Stein, O., Zerefos, C.S., Evaluation of near-surface ozone over Europe from the MACC reanalysis, *Geoscientific Model Development*, 8 (7), pp. 2299-2314, 2015
  28. Colette A., C. Andersson, A.Baklanov, B. Bessagnet, J.n Brandt, J. H. Christensen, R. Doherty, M. Engardt, C. Geels, C. Giannakopoulos, G. B Hedegaard, **E. Katragkou**, J. Langner, H. Lei, A. Manders, D. Melas, F. Meleux, L. Roull, M. Sofiev, Joana Soares, D. S Stevenson, M. Tombrou-Tzella, K. V Varotsos, P. Young, Is the ozone climate penalty robust in Europe? *Environmental Research Letters*, 10 084015, doi:10.1088/1748-9326/10/8/084015, 2015
  29. Eskes H., V. Huijnen, A. Arola, A. Benedictow, A. Blechschmidt, E. Botek, O. Boucher, I. Bouarar, S. Chabrillat, E. Cuevas, R. Engelen, H. Flentje, A. Gaudel, J. Griesfeller, L. Jones, J. Kapsomenakis, **E. Katragkou**, S. Kinne, B. Langerock, M. Razinger, A. Richter, M. Schultz, M. Schulz, N. Sudarchikova, V. Thouret, M. Vrekoussis, A. Wagner, and C. Zerefos, Validation of reactive gases and aerosols in the MACC global analysis and forecast system, *Geoscientific Model Development*, 8, 3523-3543, 2015.
  30. Alexandri G., A. K. Georgoulas, P. Zanis, **E. Katragkou**, A. Tsikerdekis, K. Kourtidis, and C. Meleti, On the ability of RegCM4 regional climate model to simulate surface solar radiation patterns over Europe: an assessment using satellite-based observations, *Atmospheric Chemistry and Physics*, 15, 13195-13216, 2015.
  31. Kioutsoukis I., A. de Meij, H. Jakobs, **E. Katragkou**, JF. Vinuesa, Andreas Kazantzidis, High resolution WRF ensemble forecasting for irrigation: Multi-variable evaluation, *Atmospheric Research*, 167, 156–174, 2016
  32. Flemming, J., Benedetti, A., Inness, A., Engelen J, R., Jones, L., Huijnen, V., Remy, S., Parrington, M., Suttie, M., Bozzo, A., Peuch, V.-H., Akritidis, D., **Katragkou, E.**, The CAMS interim Reanalysis of Carbon Monoxide, Ozone and Aerosol for 2003-2015 (2017) *Atmospheric Chemistry and Physics*, 17 (3), pp. 1945-1983, 2017
  33. Tsikerdekis, A., Zanis, P., Steiner, A.L., Solmon, F., Amiridis, V., Marinou, E., **Katragkou, E.**, Karacostas, T., Foret, G., Impact of dust size parameterizations on aerosol burden and radiative forcing in RegCM4, *Atmospheric Chemistry and Physics*, 17 (2), pp. 769-791, 2017
  34. Knist, S., Goergen, K., Buonomo, E., Christensen, O.B., Colette, A., Cardoso, R.M., Fealy, R., Fernández, J., García-Díez, M., Jacob, D., Kartsios, S., **Katragkou, E.**, Keuler, K., Mayer, S., van Meijgaard, E., Nikulin, G., Soares, P.M.M., Sobolowski, S., Szepszo, G., Teichmann, C., Vautard, R., Warrach-Sagi, K., Wulfmeyer, V., Simmer, C. Land-atmosphere coupling in EURO-CORDEX evaluation experiments, *Journal of Geophysical Research: Atmospheres*, 122 (1), pp. 79-103, 2017

35. Michaelides, S., Karacostas, T., Sánchez, J.L., Retalis, A., Pytharoulis, I., Homar, V., Romero, R., Zanis, P., Giannakopoulos, C., Bühl, J., Ansmann, A., Merino, A., Melcón, P., Lagouvardos, K., Kotroni, V., Bruggeman, A., López-Moreno, J.I., Berthet, C., **Katragkou, E.**, Tymvios, F., Hadjimitsis, D.G., Mamouri, R.-E., Nisantzi, A., Reviews and perspectives of high impact atmospheric processes in the Mediterranean, *Atmospheric Research*, 208, pp. 4-44, 2018
36. Almpnidou, V., **Katragkou, E.**, Mazaris, A.D., The efficiency of phenological shifts as an adaptive response against climate change: a case study of loggerhead sea turtles (*Caretta caretta*) in the Mediterranean, *Mitigation and Adaptation Strategies for Global Change*, 23 (7), pp. 1143-1158, 2018.
37. Akritidis, D., **Katragkou, E.**, Zanis, P., Pytharoulis, I., Melas, D., Flemming, J., Inness, A., Clark, H., Plu, M., and Eskes, H.: A deep stratosphere-to-troposphere ozone transport event over Europe simulated in CAMS global and regional forecast systems: analysis and evaluation, *Atmospheric Chemistry and Physics*, 18, 15515-15534, 2018.
38. Fita, L., Polcher, J., Giannaros, T. M., Lorenz, T., Milovac, J., Sofiadis, G., **Katragkou, E.**, Bastin, S.: CORDEX-WRF v1.3: development of a module for the Weather Research and Forecasting (WRF) model to support the CORDEX community, *Geoscientific Model Development*, 12, 1029-1066, <https://doi.org/10.5194/gmd-12-1029-2019>, 2019.
39. Coppola, E., Sobolowski, S., Pichelli, E. .. **S. Kartsios, E. Katragkou, ...et al.** A first-of-its-kind multi-model convection permitting ensemble for investigating convective phenomena over Europe and the Mediterranean. *Climate Dynamics* 55, 3–34, <https://doi.org/10.1007/s00382-018-4521-8>, 2020.
40. Tsikerdekis, A., Zanis, P., Georgoulas, A.K., Alexandri G., **Katragkou E.**, Karacostas T, Solmon F., Direct and semi-direct radiative effect of North African dust in present and future regional climate simulations, *Climate Dynamics*, 2019.
41. Jack C. and **Katragkou E.**, Evaluation of downscaling methods over Europe: results of the EU-COST Action VALUE, *International Journal of Climatology*, doi: 10.1002/joc.6184, 2019.
42. Jacob, D., Teichmann, C., Sobolowski, S., **Katragkou, E.** et al, Regional climate downscaling over Europe: perspectives from the EURO-CORDEX community, *Regional Environmental Change*, 20 (2), art. no. 51, 2020.
43. Davin, E. L., Rechid, D., Breil, M., Cardoso, R. M., Coppola, E., Hoffmann, P., Jach, L. L., **Katragkou, E.**, de Noblet-Ducoudré, N., Radtke, K., Raffa, M., Soares, P. M. M., Sofiadis, G., Strada, S., Strandberg, G., Tölle, M. H., Warrach-Sagi, K., and Wulfmeyer, V.: Biogeophysical impacts of forestation in Europe: first results from the LUCAS (Land Use and Climate Across Scales) regional climate model intercomparison, *Earth System Dynamics*, 11, 183–200, <https://doi.org/10.5194/esd-11-183-2020>, 2020.
44. **Pavlidis, V., Katragkou, E.**, Prein, A., Georgoulas, A.K., Kartsios, S., Zanis, P., Karacostas, T., Investigating the sensitivity to resolving aerosol interactions in downscaling regional model experiments with WRFv3.8.1 over Europe, *Geoscientific Model Development*, 13 (6), pp. 2511-2532, 2020.
45. Lavin-Gullon A., J. Fernandez, S. Bastin, R. M. Cardoso, L. Fita, T. M. Giannaros, K. Goergen, J. M. Gutierrez, S. Kartsios, **E. Katragkou**, T. Lorenz, J. Milovac, S. Sobolowski, P. M. M. Soares, K. Warrach-Sagi, Internal variability vs multi-physics uncertainty in a regional climate model, *International Journal of Climatology*, <http://dx.doi.org/10.1002/joc.6717>
46. Breil M., D. Rechid, E.L. Davin, N. de Noblet-Ducoudré, **E. Katragkou**, R.M. Cardoso, P. Hoffmann, L.L. Jach, P.M.M. Soares, G. Sofiadis, S. Strada, G. Strandberg, M.H. Tölle, K. Warrach-Sagi, The opposing effects of reforestation and afforestation on the diurnal temperature cycle at the surface and in the lowest atmospheric model level in the European summer, *Journal of Climate*, 33 (21), pp. 9159-9179, 2020.

47. Alexandridis, ..., **Kartsios, S., Karypidou, M.C., Katragkou, E., ...**, Designing AfriCultuReS services to support food security in Africa, *Transactions in GIS*, <http://dx.doi.org/10.1111/tgis.12684>, 2020.
48. Karypidou, M.C., Almpandou, V., Tompkins, A.M., Mazaris A.D., Gewehr S., Mourelatos S., **Katragkou E.**, Projected shifts in the distribution of malaria vectors due to climate change, *Climatic Change*, 2020.
49. Akritidis, D., **Katragkou, E.**, Georgoulas, A.K., Zanis, P., **Kartsios, S.**, Flemming, J., Inness, A., Douros, J., Eskes, H., A complex aerosol transport event over Europe during the 2017 Storm Ophelia in CAMS forecast systems: Analysis and evaluation, *Atmospheric Chemistry and Physics*, 20 (21), art. no. 698, pp. 13557-13578, 2020
50. Ban N., E. Brisson, C. Caillaud, E. Coppola, E. Pichelli, S. Sobolowski, M. Adinol, B. Ahrens, S. Berthou, S. Bastin, D. Belusic, S. Chan, L. Fita, T. Frisius, K. Goergen, O. Hodnebrog, S. Kartsios **E. Katragkou**, E. J. Kendon, K. Keuler Alvaro Lavin-Gullon Torge Lorenz J. Milovac, H-J Panitz, M. Rafe, A. Remedio, C. Schaer. B. M. Steensen. P. Stocchi, M. Toelle H. Truhetz, J. Vergara Temprado, H de Vries, The first multi-model ensemble of regional climate simulations at the kilometer-scale resolution, Part I: Evaluation of precipitation, *Climate Dynamics*, 275–302, 2021
51. Karypidou, M. C., **Katragkou, E.**, and Sobolowski, S. P.: Precipitation over southern Africa: is there consensus among global climate models (GCMs), regional climate models (RCMs) and observational data? *Geoscientific Model Development*, 15, 3387-3404, 2022
52. Sofiadis, G., **Katragkou, E.**, Davin, E. L., Rechid, D., de Noblet-Ducoudre, N., Breil, M., Cardoso, R. M., Hoffmann, P., Jach, L., Meier, R., Mooney, P., Soares, P. M. M., Strada, S., Tolle, M. H., and Warrach Sagi, K.: Afforestation impact on soil temperature in regional climate model simulations over Europe, *Geoscientific Model Development*, 15, 595–616, 2022.
53. Daloz, A.S., Schwingshackl, C., Mooney, P., Strada, S., Rechid, D., Davin, E.L., **Katragkou, E.**, De Noblet-Ducoudré, N., Belda, M., Halenka, T., Breil, M., Cardoso, R.M., Hoffmann, P., Lima, D.C.A., Meier, R., Soares, P.M.M., Sofiadis, G., Strandberg, G., Toelle, M.H., Lund, M.T. Land-atmosphere interactions in sub-polar and alpine climates in the CORDEX flagship pilot study Land Use and Climate Across Scales (LUCAS) models-Part 1: Evaluation of the snow-albedo effect, *Cryosphere*, 16, 2403–2419, <https://doi.org/10.5194/tc-16-2403-2022>, 2022
54. Mooney, P.A., Rechid, D., Davin, E.L., **Katragkou, E.**, De Noblet-Ducoudré, N., Breil, M., Cardoso, R.M., Daloz, A.S., Hoffmann, P., Lima, D.C.A., Meier, R., Soares, P.M.M., Sofiadis, G., Strada, S., Strandberg, G., Toelle, M.H., Lund, M.T., Land-atmosphere interactions in sub-polar and alpine climates in the CORDEX Flagship Pilot Study Land Use and Climate Across Scales (LUCAS) models - Part 2: The role of changing vegetation, *Cryosphere*, 16 (4), <https://doi.org/10.5194/tc-16-1383-2022>, 2022
55. Soares, P.M.M., Careto, J.A.M., Cardoso, R.M., Goergen, K., **Katragkou, E.**, Sobolowski, S., Coppola, E., Ban, N., Belušić, D., Berthou, S., Caillaud, C., Dobler, A., Hodnebrog, Ø., Kartsios, S., Lenderink, G., Lorenz, T., Milovac, J., Feldmann, H., Pichelli, E., Truhetz, H., Demory, M.E., de Vries, H., Warrach-Sagi, K., Keuler, K., Raffa, M., Tölle, M., Sieck, K., Bastin, S., The added value of km-scale simulations to describe temperature over complex orography: the CORDEX FPS-Convection multi-model ensemble runs over the Alps, *Climate Dynamics*, 62, 4491–4514, <https://doi.org/10.1007/s00382-022-06593-7>, 2024
56. Ha, M.T., Bastin, S., Drobinski, P., Fita, L., Polcher, J., Bock, O., Chiriaco, M., Belušić, D., Caillaud, C., Dobler, A., Fernandez, J., Goergen, K., Hodnebrog, Ø., Kartsios, S., **Katragkou, E.**, Lavin-Gullon, A., Lorenz, T., Milovac, J., Panitz, H.-J., Sobolowski, S., Truhetz, H., Warrach-Sagi, K., Wulfmeyer, V., Precipitation frequency in Med-CORDEX and EURO-CORDEX ensembles from 0.44° to convection-permitting resolution: impact of model

- resolution and convection representation, *Climate Dynamics*, <https://doi.org/10.1007/s00382-022-06594-6>, 2024
57. Sangelantoni, L., Sobolowski, S., Lorenz, T., Hodnebrog, Ø., Cardoso, R.M., Soares, P.M.M., Ferretti, R., Lavín-Gullón, A., Fernandez, J., Goergen, K., Milovac, J., **Katragkou, E.**, Kartsios, S., Coppola, E., Pichelli, E., Adinolfi, M., Mercogliano, P., Berthou, S., de Vries, H., Dobler, A., Belušić, D., Feldmann, H., Tölle, M.H., Bastin, S., Investigating the representation of heatwaves from an ensemble of km-scale regional climate simulations within CORDEX-FPS convection, *Climate Dynamics*, <https://doi.org/10.1029/2024 GL111147>, 2025
  58. Karypidou, M.C., Sobolowski, S.P., Sangelantoni, L., Nikulin, G., **Katragkou, E.**, The impact of lateral boundary forcing in the CORDEX-Africa ensemble over southern Africa, *Geoscientific Model Development*, 16 (7), pp. 1887-1908, 2023
  59. Kartsios, S., Pytharoulis, I., Karacostas T. Vassileios Pavlidis, **E. Katragkou**, Verification of a global weather forecasting system for decision-making in farming over Africa, *Acta Geophysica*, 2023
  60. Hoffmann, P., Reinhart, V., Rechid, D., de Noblet-Ducoudré, N., Davin, E. L., Asmus, C., Bechtel, B., Böhner, J., **Katragkou, E.**, and Luyssaert, S.: High-resolution land use and land cover dataset for regional climate modelling: Historical and future changes in Europe, *Earth Syst. Sci. Data*, 15, 3819–3852, 2023
  61. **Katragkou, E.**, Sobolowski S.P., Teichmann C., Solmon F., Pavlidis V., Rechid D., Hoffmann P., Fernandez J., Nikulin G., Jacob D.: Delivering an Improved Framework for the New Generation of CMIP6-Driven EURO-CORDEX Regional Climate Simulations. *Bull. Amer. Meteor. Soc.*, 105, E962–E974, <https://doi.org/10.1175/BAMS-D-23-0131.1>, 2024
  62. Karapetsas, N.; Gobin, A.; Bilas, G.; Koutsos, T.M.; Pavlidis, V.; **Katragkou, E.**; Alexandridis, T.K., Analysis of Land Suitability for Maize Production under Climate Change and Its Mitigation Potential through Crop Residue Management. *Land*, 13, 63. <https://doi.org/10.3390/land13010063>, 2024
  63. Pavlidis V., M. Kganyago, M. Mukhawana, T. Alexandridis, I. Cherif, G.Laneve, R. Orsi, S. Kartsios, M. C. Karypidou, I. Sofiadis, **E. Katragkou**, A drought monitoring and early warning service for food security in South Africa, *Climate Services*, Volume 34, 2024, 100463, ISSN 2405-8807, <https://doi.org/10.1016/j.cliser.2024.100463>, 2024
  64. Langendijk G.S., Halenka T., Hoffmann P., Adinolfi M., Aldama Campino A., Asselin O., Bastin S., Bechtel B., Belda M., Bushenkova A., Campanale A., Chun K.P., Constantinidou K., Coppola E., Demuzere M., Doan Q.-V., Evans J., Feldmann H., Fernandez J., Fita L., Hadjinicolaou P., Hamdi R., Hundhausen M., Grawe D., Johannsen F., Milovac J., **Katragkou E.**, Kerroumi N.E.I., Kotlarski S., Le Roy B., Lemonsu A., Lennard C., Lipson M., Mandal S., Muñoz Pabón L.E., Pavlidis V., Pietikäinen J.-P., Raffa M., Raluy-López E., Rechid D., Rui I., Schulz J.-P., Soares P.M.M., Takane Y., Teichmann C., Thatcher M., Top S., Van Schaeybroeck B., Wang F., Yuan J., Towards better understanding the urban environment and its interactions with regional climate change -The WCRP CORDEX Flagship Pilot Study URB-RCC, *Urban Climate*, 58, art. no. 102165, DOI: 10.1016/j.uclim.2024.102165, 2024
  65. Sangelantoni L., Sobolowski S.P., Soares P.M.M., Goergen K., Cardoso R.M., Adinolfi M., Dobler A., **Katragkou E.**, Scoccimarro E., Ferretti R., Tölle M., Feldmann H., Heatwave Future Changes From an Ensemble of Km-Scale Regional Climate Simulations Within CORDEX-FPS Convection, *Geophysical Research Letters*, 52 (2), art. no. e2024GL11114, DOI: 10.1029/2024GL111147, 2025
  66. Nabat, P., Somot, S., Boé, J., Corre, L., **Katragkou, E.**, Li, S., Mallet, M., van Meijgaard, E., Pavlidis, V., Pietikäinen, J.-P., Sørland, S., and Solmon; F., Multi-model assessment of the role of anthropogenic aerosols in summertime climate change in Europe, *Geophysical Research Letters*, 52, DOI:10.1029/2024GL112474, 2025

67. Sobolowski et al., EURO-CORDEX CMIP6 GCM Selection & Ensemble Design: Best Practices and Recommendations, [Bulletin of the American Meteorological Society](#), DOI 10.1175/BAMS-D-23-0189.1
68. Michou et al., Projected Evolution of the Urban Climate and Heatwaves using an Ensemble of Convection Permitting Regional Climate Models, submitted to [Climatic Change](#), preprint, <https://doi.org/10.21203/rs.3.rs-5309528/v1>

## Coordination of International Scientific Networks

1. **WCRP EURO-CORDEX Region 4: Europe**  
(Coordination: D. Jacob, S. Sobolowski, E. Katragkou)
2. **WCRP CORDEX FPS LUCAS – Land Use and Climate Across Scales**  
(Coordination: D. Rechid, N. de Noblet, E. Davin, E. Katragkou)

## Evaluator of Research Proposals

- **Marie Skłodowska-Curie Postdoctoral Fellowships (PF) 2025 Call proposals.**
- **Hellenic Foundation for Research and Innovation (HFRI) – 1st Call for Research Projects to Support Postdoctoral Researchers, 2017; 1st Call for Research Projects to Support Faculty Members and Researchers, and for the Procurement of High-Value Research Equipment, 2019**
- **High Performance Computing (HPC)–Europa3 – Member of the Scientific Users Selection Panel (SUSP) for the evaluation of proposals in the field of Climate Applications in HPC, 2017–2022**
- **National Infrastructure for Research and Technology Network (GRNET)–HPC - ARIS Evaluator of proposals for running simulations on the High-Performance Computing (HPC) infrastructure of the, Greece**
- **LinkSCEEM & Cy-Tera Joint Call for Proposals for HPC Access – Evaluator of proposals for simulations on the High-Performance Computing (HPC) infrastructures of Cy-Tera and LinkSCEEM-2**

## Journal Editor

**International Journal of Climatology:** Guest Editor στο Special Issue “VALUE: Validating and Integrating Downscaling Methods for Climate Change Research”.

## SUPERVISION OF PhD Students

### 1. Pavlidis, Vasileios

*Assessment of errors and uncertainties in radiation and cloudiness in regional climate simulations*

PhD Thesis, Department of Geology, Aristotle University of Thessaloniki

Start: 03/2016 – Completion: 02/2020

The thesis was carried out with the support of the scholarship programme under Action 10.2.2.03.01 entitled “*Strengthening Human Resources through the Implementation of Doctoral Research*,” 1st Cycle, NSRF 2014–2020, under the auspices of the State Scholarships Foundation (IKY).

**Duration of Scholarship:** 36 months (12/2016 – 12/2019)

### 2. Karypidou, Maria-Chara

*Assessment of precipitation errors and uncertainty over Africa in regional climate simulations: investigation of physical processes*

PhD Thesis, Department of Geology, Aristotle University of Thessaloniki

Start: 03/2018 – Completion: 07/2022

The thesis was carried out with the support of the **Hellenic Foundation for Research and Innovation (HFRI)** scholarship programme, “*2nd HFRI Call for PhD Scholarships*.”

**Duration of Scholarship:** 33 months (10/2019 – 07/2022)

### 3. Sofiadis, Ioannis

*Study of the impacts of land-cover change on the climate of Europe using a regional climate model*

PhD Thesis, Department of Geology, Aristotle University of Thessaloniki

Start: 07/2018 – Completion: 12/2022

The thesis was carried out with the support of the **Swiss Government Excellence Scholarships for Foreign Students** for the academic year 2019–2020, in collaboration with **ETH Zurich**.

**Duration of Scholarship:** 12 months

Additionally, the thesis received funding from the **Hellenic Foundation for Research and Innovation (HFRI)** through the “*2nd HFRI Call for PhD Scholarships*.”

**Duration of Scholarship:** 36 months

## PARTICIPATION IN RESEARCH PROJECTS

\* PI for AUTH, \*\* Project Coordinator

1. **\*EURO-CORDEX**, *World Climate Research Programme (WCRP)* – European Coordinated Regional Downscaling Experiment.  
Coordinator of dynamical downscaling activities for EURO-CORDEX (2010 – present).
2. **\*\* & HFRI**, *Sub-action 2: Funding Projects in Leading-Edge Sectors – RRFQ: Basic Research Financing (Horizontal Support for all Sciences) – Upgrading a Climate Model to Improve Regional Climate Projections (UpClim)*, 02/2024 – 12/2025 (Project Code 74955).
3. **\*CORDEX-Flagship Pilot Study: Urban Environments and Regional Climate Change (URB-RCC)**, 2021 – present.
4. **\*Operational Program of the Region of Central Macedonia 2014–2020, Research and Innovation Projects – Digital Application for Forecasting Mosquito Nuisance “Mosquito-vision”**, 10/2021 – 01/2025 (Project Code 72012).
5. **\*European Commission (EC)**, *Horizon 2020 (H2020) LC-SFS-19-2018-2 – Resilient Farming by Adaptive Microclimate Management (STARGATE)*, 10/2019 – 12/2024 (Project Code 99440).
6. **\*\*CORDEX-Flagship Pilot Study: Land Use Change Across Scales (LUCAS)**, 2016 – 2024.
7. **\*CORDEX-Flagship Pilot Study: Convective Phenomena at High Resolution over Europe and the Mediterranean**, 2016 – 2024.
8. **\*European Innovation Council (EIC)** – *1st Prize for Early Warning for Epidemics (EYWA)* 03/2022 – 05/2024 (Project Code 72181).
9. **\*Service Provision Project** – *Support of a Mosquito Monitoring and Control System Using Numerical Models*, 07/2020 – 12/2023 (Project Code 71527).
10. **\*\*Hellenic Foundation for Research and Innovation (HFRI)** – *2nd Call for PhD Scholarships: Assessment of Precipitation Errors and Uncertainty over Africa in Regional Climate Simulations: Investigation of Physical Processes* – PhD Candidate: Maria Chará Karypidou, 2019 – 2022 (Project Code 99351).
11. **\*\*Hellenic Foundation for Research and Innovation (HFRI)** – *2nd Call for PhD Scholarships: Study of the Impacts of Land-Cover Changes on the Climate of Europe Using a Regional Climate Model* – PhD Candidate: Ioannis Sofiadis, 2019 – 2022 (Project Code 99353).
12. **\*CORDEX-Flagship Pilot Study Mediterranean – Role of Natural and Anthropogenic Aerosols in the Mediterranean Region: Past Climate Variability and Future Climate Sensitivity**, 2018 – 2021.
13. **\*State Scholarships Foundation (IKY)** – *Promotion of Greece–Germany Scientific Exchange and Cooperation – Impacts of Land-Use Changes on European Climate Using Regional Climate Simulations (IKYDA 2018)*, 2018 – 2020.

14. **\*European Commission (EC)** – *ECMWF Copernicus Atmosphere Monitoring Service (CAMS-84): Global and Regional A-posteriori Evaluation and Quality Assurance*, 10/2018 – 12/2021 (Project Code 99199).
15. **\* General Secretariat for Research and Technology (GSRT)** – *Bilateral and Multilateral R&T Cooperation Greece–Germany: Establishment of an Early Warning System for Mosquito-borne Diseases and Implementation of New Vector Control Tools in Urban Environments (EWSMD)*, 05/2018 – 05/2021 (Project Code 94726).
16. **\*European Commission (EC)** – *Horizon 2020 – Enhancing Food Security in African Agricultural Systems with the Support of Remote Sensing (AfriCultuReS)*, 2017 – 2021 (Project Code 95535).
17. **\*European Commission (EC)** – *ECMWF Copernicus Atmosphere Monitoring Service (CAMS-84): Global and Regional A-posteriori Validation, with Focus on the Arctic and Mediterranean*, 10/2015 – 09/2018.
18. **European Commission (EC)** – *H2020 Monitoring Atmospheric Composition and Climate (MACC-III)*, 2014 – 2015.
19. **European Commission (EC)** – *FP7 The People Programme – International Research Staff Exchange Scheme (REQUA): Regional Climate–Air Quality Interactions*, 2014 – 2017.
20. **\*AUTH Research Committee (ELKE-AUTH)** – *Action A: Support of Young Researchers (Lecturer Rank) – Regional Climate Simulation within the Framework of EURO-CORDEX*, 2014 – 2016.
21. **State Scholarships Foundation (IKY)** – *Promotion of Greece–Germany Scientific Cooperation – Operational Air-Quality Forecasting in Greece and Germany*, Scientific Supervisor: D. Balis, 2014 – 2015 (IKYDA 2014).
22. **National Strategic Reference Framework 2007-2013** – *DAPHNE: An Innovative and Integrated Conceptual Model to Mitigate the Impact of Climate Change on Drought in Thessaly*, 2013 – 2015.
23. **National Strategic Reference Framework 2007-2013** – *WaveForUs: A Pilot System for Daily Wave and Circulation Forecasts for Public and Emergency Use in the Thermaikos Gulf*, 2013 – 2015.
24. **European Commission (EC)** – *FP7 ENORASIS: Environmental Optimisation of Irrigation Management Using High-Precision Satellite Data, Advanced Modelling, Process Control and Business Innovation*, 2012 – 2015.
25. **State Scholarships Foundation (IKY)** – *Greece–Germany Cooperation Programme – Etesian Winds in the Aegean: Assessment of Wind Energy Potential for Present and Future Climate*, Supervisor: P. Zanis, 2012 – 2013 (IKYDA 2012).
26. **European Commission (EC)** – *FP7 Monitoring Atmospheric Composition and Climate (MACC-II)*, 2012 – 2014.
27. **AUTH Research Committee (ELKE-AUTH)** – *Enhancement of Computational Infrastructure for Climate Simulations over Europe*, 2014 – 2016.

28. **National Strategic Reference Framework 2007-2013** – *Development of a Geographic System for Climate Information (GEOKLIMA)*, 2011 – 2013.
29. **European Commission (EC)** – *FP7 PASODOBLE: Promote Air Quality Services Integrating Observations – Development of Localised Information for Europe*, 2010 – 2013.
30. **European Commission (EC)** – *FP7 Monitoring Atmospheric Composition and Climate (MACC)*, 2009 – 2011.
31. **Municipality of Ypsilantis** – *Integrated Assessment of Air Pollution in the Municipality of D. Ypsilantis from Existing and Future Sources of Emissions*, Laboratory of Atmospheric Physics, Department of Physics, AUTH, 2008 – 2009.
32. **State Scholarships Foundation (IKY)** – *Greece–Germany Cooperation Programme – Coupling of the Global Chemical Model ECHAM5.HAMOX with the Regional Model CAMx*, Supervisor: D. Melas, 2008 (IKYDA 2008).
33. **European Commission (EC)** – *FP6 GEMS: Global and Regional Earth-System Monitoring Using Satellite and In-situ Data*, 2005 – 2009.
34. **European Commission (EC)** – *FP6 CECILIA: Central and Eastern Europe Climate Change Impact and Vulnerability Assessment*, 2006 – 2009.
35. **European Space Agency (ESA)** – *PROMOTE: Protocol Monitoring for the GMES (Global Monitoring for Environment and Security) Atmosphere Service Element*, 2006 – 2009.
36. **Ministry of National Education and Religious Affairs** – *PYTHAGORAS II: Assessment of Changes in the Climatic Radiation Balance over the Mediterranean and Southeastern Europe with Emphasis on Greece*, 2005 – 2006.
37. **Bavarian State Ministry for Regional Development and Environmental Affairs** – *Reactive Nitrogen Experiment (SCAVEX)*, 2001 – 2003.
38. **European Commission (EC)** – *FP5 PARTEMIS: Measurement and Prediction of Aerosol and Gaseous Precursor Emissions from Gas Turbine Engines*, 2000 – 2003.
39. **European Commission (EC)** – *FP5 SUTRA: Sustainable Urban Transportation*, 2000 – 2003.

## Reviewer in Peer Review Journals

| Journal                                            |
|----------------------------------------------------|
| 1. Nature Climate Change                           |
| 2. Atmospheric Chemistry and Physics (ACP)         |
| 3. Climate Dynamics (Clim Dyn)                     |
| 4. Climate Services (CLISER)                       |
| 5. Geophysical Research Letters (GRL)              |
| 6. Hydrology and Earth System Sciences (HESS)      |
| 7. Science of the Total Environment                |
| 8. International Journal of Climatology (IJOC)     |
| 9. Geoscientific Model Development (GMD)           |
| 10. Atmospheric Environment (Atmos Env)            |
| 11. Climatic Change                                |
| 12. Regional Environmental Change (REEC)           |
| 13. Journal of Environmental Management            |
| 14. Theoretical and Applied Climatology (TAAC)     |
| 15. Annales Geophysicae (ANGEO)                    |
| 16. Climate Research (CR)                          |
| 17. Atmosphere                                     |
| 18. Advances in Meteorology                        |
| 19. Atmospheric and Oceanic Science Letters (AOSL) |