

Curriculum Vitae

(CV in Greek http://www.physics.auth.gr/system/cvs/130/original/CV_Tourpali.pdf?1277283202)

Name: Kleareti Tourpali
Title: Assistant Professor, Physics Department, Aristotle University of Thessaloniki, Greece
Degrees: BSc in Physics, University of Ioannina, Department of Physics, Greece, 1985
PhD in Meteorology, University of Thessaloniki, Greece, 1994
Languages: English, Nederlands, French

Areas of Scientific Research

- Atmospheric Physics and Global Change
- Large scale atmospheric circulation
- Natural and anthropogenic variability of the ozone layer and related effects on atmospheric circulation, climate and Ultraviolet radiation
- Solar activity variations and related atmospheric and climatic effects
- Surface solar radiation variability and future projections

Academic Employment / Research Mobility

- Research Assistant at the Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki (1990-2001).
- Visiting researcher at the School of Meteorology, FU-Berlin, Germany (1994)
- Visiting researcher at the National Center for Atmospheric Research (NCAR), Boulder, Co USA (1995).
- Visiting researcher at the Meteorology Department, University of Reading, UK (1999).
- Post Doc Researcher at the Institute of Marine and Atmospheric Research (IMAOU), RijksUniversiteit Utrecht, and at KNMI, the Netherlands (1999 – 2001).
- Lecturer, Physics Department, Aristotle University of Thessaloniki, (2004 – 2009)
- Assistant Professor, Physics Department, Aristotle University of Thessaloniki, (2010 – today)

Teaching experience

1. “Applied Mathematics” and “Statistics for Economists” DEI – Arts, Science and Technology Foundation course, 1999.
2. 2004 – today
3 courses per year at undergraduate level (Atmospheric Physics, Physics of the Atmospheric Environment, Atmospheric technology)
3 courses per year at the Graduate School on Environmental Physics, Physics Dept. Aristotle University of Thessaloniki (Physics of the Atmosphere and the Environment, Environmental Statistics, Planetary change)

Research experience

Coordinator of 1 research project, funded by EU and national funds
Participant in 22 (EU-funded) research projects, as researcher.

Published work

Peer-reviewed international scientific journals: 25
Peer reviewed international conference proceedings: 28
Co-author in WMO and SPARC Assessment Reports: 3

Citations to published work (excluding self citations): 376 H-index: 10
Reviewer in 5 international scientific journals
Invited speaker in 5 international conferences

Publications in International Scientific Journals

1. Bais, A.F., C.S. Zerefos, C. Meleti, I. Ziomas, K. Tourpali, "Spectral Measurements of Solar UVB Radiation and its Relations to Total Ozone, SO₂, and Clouds", **J. Geophys. Res.**, 98(D3), 5199-5204, 1993
2. Bais, A.F., C.S. Zerefos, C. Meleti, I.C. Ziomas, K. Tourpali, V. Karaouza, D.S. Balis, "Variability of Solar UVB Radiation at high and middle latitudes during EASOE 91-92", **Geophysical Research Letters**, 21, 13, 1403-1406, 1994.
3. Bais, A.F., K. Tourpali, C.S. Zerefos, I.C. Ziomas, "Reply to the paper: On the total ozone depletion over Greece derived from satellite flown and ground-based instruments", **Int. J. Remote Sensing**, 15, 16, 3295-3301, 1994.
4. Zerefos, C.S., K. Tourpali, A.F. Bais, "Further studies on a possible volcanic signal to the ozone layer", **J. Geophys. Res.**, 99, D-12, 2541-2546, 1994
5. Bais, A. F., C. S. Zerefos and K. Tourpali, "Solar UV-B Measurements with a Double Monochromator Brewer Spectrophotometer", **Geomagnetism I Aeronomiya** 34 (5), 196-199, 1994.
6. H. van Loon and K. Tourpali, "Antarctic Ozone and Trends in the Troposphere of Southern Hemisphere", **Meteorologica**, 2, 101-108, 1995
7. Zerefos, C. S., K. Tourpali, B. R. Bojkov, D. S. Balis, B. Rognerund and I. S. A. Isaksen, "Solar Activity - Total Ozone Relationships: Observations and Model Studies with Heterogeneous Chemistry", **J. Geophys. Res.**, vol. 102, D1, 1561-1569, 1997
8. Balis, D. S., K. Tourpali, C. S. Zerefos, C. Meleti, I. C. Ziomas, A. F. Bais, A. Papayianis and A. Paliatsos, "On the daily maximum UV-B doses during the significant ozone deficiencies in the transition seasons of 1992/93", **Advances in Space Research**, 22, 11, 1505-1508, 1998.
9. Tourpali, K., X. X. Tie, C. S. Zerefos and G. Brasseur, "Decadal Evolution of Total Ozone Decline: Observation and Model Results", **J. Geophys. Res.**, vol 102, 20, 23,955-23,962, 1997.
10. Zerefos C.S, C. Meleti, D. Balis, K. Tourpali and A.F. Bais "Quasi-biennial and longer-term changes in clear sky UV-B solar irradiance", **Geophysical Research Letters**, 25,23, 4345-4348, 1998.
11. Zerefos C.S, D.S. Balis, C. Meleti, A.F. Bais, K. Tourpali, K. Vanicek, F. Cappellani, U. Kaminski, T. Colombo, R. Stubi, P. Formenti and M.O. Andreae, "Surface UV Solar Irradiance and Total Ozone during the Solar Eclipse of 11 August 1999", **J. Geophys. Res.**,105, 26463-26473, 2000.
12. Zerefos, C. S., D. Balis, M. Tzortziou, A. Bais, K. Tourpali, C. Meleti, G. Bernhard and J. Herman, "A Note on the Interannual Variations of UV-B erythemal doses and solar irradiance from ground-based and satellite observations", **Annales Geophysicae**, 19, 115-120, 2001
13. Forster, P. M. de F. and K. Tourpali, "The effect of tropopause height changes on the calculation of ozone trends and their radiative forcing", **J. Geophys. Res-Atmos.**, 106, 12241-12252, 2001.
14. Zerefos, C. S., K. Tourpali, I.S.A. Isaksen, and C. J. E. Schuurmans, " Long term solar induced variations in total ozone, stratospheric temperatures and the tropopause", **Advances in Space Research**, 27, 12,1943-1948, 2001.
15. Zerefos C.S, D.S. Balis, P. Zanis, C. Meleti, A.F. Bais, K. Tourpali, D. Melas, I. Ziomas, E. Galani, K. Kourtidis, A. Papayannis and Z. Gogosheva, "Changes in surface UV solar irradiance and ozone over the Balkans, during the eclipse of August 11, 1999", **Advances in Space Research**, 27, 12,1955-1963, 2001
16. Tourpali, K., CJE Schuurmans, R. van Dorland, B. Steil, and C. Brühl, "Stratospheric and tropospheric response to enhanced solar UV radiation: A model study", **Geophysical Research Letters**, 30(5), 1231, 2003.
17. Tourpali K., Schuurmans CJE, Van Dorland R, Steil B, Brühl C, Manzini E. Solar Cycle Modulation Of The Arctic Oscillation In A Chemistry-Climate Model, **Geophysical Research Letters**,32 (17): Art. No. L17803 Sep 3 2005
18. Zerefos C., K. Tourpali and D. Balis, Solar activity-ozone relationships in the vertical distribution of ozone, **Int. J. of Rem. Sens.**, 26,16, 3449-3454, 2005

19. Zanis P, Maillard E, Staehelin J., Zerefos C, Kosmidis E, Tourpali K, Wohltmann I On The Turnaround Of Stratospheric Ozone Trends Deduced From The Reevaluated Umkehr Record Of Arosa, Switzerland, **J Geophys Res-Atmos** 111 (D22): Art. No. D22307 Nov 23 2006
20. Tourpali, K., Zerefos CS, Balis, D., AF Bais, The 11-year solar cycle in stratospheric ozone: Comparison between Umkehr and SBUVv8 and effects on surface erythemal irradiance, **J. Geophys Res - Atmos** 112 (12), art. no. D12306, 2007
21. Austin, J., Tourpali,K., Rozanov, E., H. Akiyoshi, S. Bekki, G. Bodeker, C. Bruhl N. Butchart, M. Chipperfield, M. Deushi, V.I. Fomichev, M.A. Giorgetta, L. Gray, K. Kodera, D. Kinnison, E. Manzini, D.Marsh¹, K. Matthes, T. Nagashima⁴, K. Shibata¹⁰, R.S. Stolarski, H.Struthers, W. Tian, Coupled chemistry climate model simulations of the solar cycle in ozone and temperature, **J. Geophys Res-Atmos**, 113, D11306, doi:10.1029/2007JD009391, 2008
22. Isaksen, I.S.A., Rognerud, B., Myhre, G., Haigh, J.D., Rumbold, S.T., Shine, K.P., Zerefos C., Tourpali K, Randel, W., Radiative forcing from modelled and observed stratospheric ozone changes due to the 11-year solar cycle **Atmos. Chem. Phys.**, 8 (2), pp. 4353-4371, 2008.
23. Tourpali, K., Bais,A. F., Kazantzidis, A., Zerefos, C.S., Akiyoshi,H., Austin,J., Brühl,C., Butchart,N., Chipperfield,M.P., Dameris, M., Deushi,M., Eyring,V., Giorgetta, M. A., Kinnison, D. E., Mancini, E., Marsh, D. R., Nagashima, T., Pitari, G., Plummer, D. A., Rozanov, E., Shibata, K., and Tian, W.: Clear sky UV simulations in the 21st century based on ozone and temperature projections from Chemistry-Climate Models, **Atmos. Chem. Phys.**, 9, 1165-1172, 2009
24. Balis D, Bojkov R, Tourpali K, and Zerefos, CS, Characteristics of the ozone decline over both hemispheres, **Int. J. of Remote Sensing**, 30, 15-16, 3887-3895 , 2009
25. Kazantzidis, A., K. Tourpali, A.F. Bais, Variability of cloud-free ultraviolet dose rates on global scale due to modeled scenarios of future ozone recovery, **Photochem. Photobiol.**,86, 117-121, 2010

Publications in Peer-Reviewed International Conference Proceedings

1. Bais, A.F., A. Kelessis, I.C. Ziomas, C.S. Zerefos, G. Amanatidis, K. Tourpali, "Six years of regular ozone observations with a Brewer Spectrophotometer at Thessaloniki, Greece", In: Ozone in the Atmosphere, **Proc. Quadr. Ozone Symp., Göttingen** FRG, A. Deepak Pub. 1989, R.D. Bojkov and P. Fabian (Eds), 713-716, 1988.
2. Zerefos, C.S., A.F. Bais, I.C. Ziomas, A. Paliatsos, G. Amanatidis, K. Tourpali, "Review of trends in air pollutants in Greece", **WMO Technical Conference on the Monitoring and Assessment of Changing Composition of the Troposphere**, Sofia, Bulgaria, Special Environmental Report #17, WMO, 724, 47-49, 1989.
3. Ziomas I., Zerefos C., Bais A., Balis D., Meleti C., Tourpali K., DenezakosA.,(1991). "Temporal and spatial variations of air pollution in the valley of Ptolemaida, Greece". **Proc. of the 1st General Conference of the Balkan Physical Union**, September 1991, Thessaloniki.
4. Zerefos C.S, K. Tourpali, C. C. Repapis,(1991) " ENSO Signal in Summer eastern Mediterranean" **Proc. of the 1st General Conference of the Balkan Physical Union**, September 1991, Thessaloniki.
5. Zerefos, C.S., H.T. Mantis, D.S. Balis, A.F. Bais, I.C. Ziomas, C.C. Repapis, K. Tourpali, C. Meleti, P. Tzoumaka, V. Fioletov, V. Khattatov, "The evolution of synoptic ozone anomalies during the European Arctic Stratospheric Ozone Experiment in winter 1991-92", **Proc. Quadr. Ozone Symp., Charlottesville**, Virginia, USA, 1992.
6. K. Τουρπάλη, Χ. Ζερεφός, Χ. Ρεπαπής, Τ. Μακρογιάννης, Η Επίδραση της Νότιας Κύμανσης στον Αριθμό ημερών Ετησία πάνω απο τον Ελλαδικό Χώρο", **2ο Πανελλήνιο Επιστημονικό Συνέδριο, Μετεωρολογίας, Κλιματολογίας, Φυσικής της Ατμόσφαιρας**, Θεσσαλονίκη 29-30 Σεπτεμβρίου, 1994.
7. Van Loon, H, K. Tourpali and J. W. Hurrell, 1995: Change in the Annual Cycle on the Southern Hemisphere and its Possible Implication for the Antarctic Ozone in Spring. In **Pr Volume of the Sixth International Meeting on Statistical Climatology**, 19-22 June 1995, Galway, Ireland, pp. 211-214.
8. Zerefos, C.S., K. Tourpali, B. R. Bojkov, D. S. Balis, B. Rognerud and I. S. A. Isaksen, "Total Ozone and Solar Activity", Polar Stratospheric Ozone, **Proc. of the 3d European Arctic Symposium**

- on **SESAME, Schliersee**, Air Pollution Research rep. 56, European Commission, J. Pyle, N. Harris and G. Amanatidis eds., 629-632, 1996.
9. Zerefos, C. S. K. Tourpali, A. F. Bais, "Recent Volcanic Signals on the Ozone Layer", in **"The Mt. Pinatubo Eruption Effects on the Atmosphere and Climate"**, G. Fiocco and D. Fua eds, NATO-ASI series, vol. I 42, 211-216, Spinger - Verlag Heidelberg, 1996.
 10. Zerefos, C.S., K. Tourpali, B. Rognerud, I. S. A. Isaksen, B. R. Bojkov and C. J. E. Schuurmans, "The Solar Output and Total Ozone", **Proc of the XVIII Quadrennial Ozone Symposium**, (eds. R.D. Bojkov and G. Visconti), L' Aquila, Italy, 11-20 September 1996, 279-282, 1998
 11. Bojkov R.D., D.S. Balis, C.S. Zerefos and K. Tourpali, "Northern Hemisphere winter-spring ozone changes in 1992-1996", **Proc of the XVIII Quadrennial Ozone Symposium**, (eds. R.D. Bojkov and G. Visconti), L' Aquila, Italy, 11-20 September 1996, 251-254, 1998.
 12. Bojkov R.D., D.S. Balis, C.S. Zerefos, K. Tourpali, M. Tzortziou and T. Kadygrova, "An update of ozone changes in the Northern Hemisphere through April 1997", **Fourth European Symposium on Ozone Research**, Schliersee, Bavaria, Germany, September 22-26, (eds N.R.P. Harris, I. L. Ikbane-Dawe and G.T. Amanatidis), 185-188, 1998.
 13. Zerefos, C.S., K. Tourpali, "The solar output and total ozone", **Proc of the Seminar on Current Issues of Astronomical and Planetary Environmental Concern, (N. Spyrou ed.)**, Thessaloniki, Greece, 5-6 April, 1998.
 14. Christiansen, B. T. Berntsen, D. Hauglustaine, I. Isaksen, S. Rosier, K. P. Shine, F. Stordal, K. Tourpali, G. Visconti and C. S. Zerefos, "The Role of Ozone in the Climate System", **Proc. European Climate Science Conference** 19-23 October 1998, Vienna, 1999.
 15. Tourpali K., and C. S. Zerefos, "ENSO related ozone anomalies in the vertical and horizontal ozone distribution: The case during the winter spring 1997/1998 event", **Proceedings Of The Academy Of Athens**, Vol. 74, 119-134, 1999
 16. Rosier S. M., K. P. Shine and K. Tourpali, "An 'Intermediate' General Circulation Model for Ozone Change Studies", **NATO ASI on "Chemistry and Radiation Changes in the Ozone Layer"**, C. S. Zerefos et al (eds), 363-371, Kluwer Academic, Netherlands, 2000.
 17. Bojkov, R. D., D. Balis, K. Tourpali, B. R. Bojkov, and C. S. Zerefos, "Characteristics of the Ozone Decline during THESEO campaign", **Fifth European Symposium on Ozone Research**, Saint Jean de Luz, France, , September 27, 1999 (eds N.R.P. Harris, M. Guirlet and G.T. Amanatidis), 55-59, 2000.
 18. Godin, S., C. S. Zerefos, E. Kosmidis, K. Tourpali, Cuevas, A. Redondas, D. Guzzi, L. Stefanutti, R. D. Bojkov, J. DeLuisi, I. Petropavlosikh, "Reconstruction of vertical ozone distributions from Umkehr estimates", in **Atmospheric Ozone, Proc. of the Quadr. Ozone Symposium**, July 2000, Sapporo, 69-70, NASDA, 2000.
 19. Bojkov, R. D., D. Balis, K. Tourpali, B. R. Bojkov, and C. S. Zerefos, "The winter – spring ozone variations in the northern middle and polar latitudes", in **Atmospheric Ozone, Proc. Of the Quadr. Ozone Symposium**, July 2000, Sapporo, 107-109, NASDA, 2000.
 20. Zerefos, C. S., D. Balis, M. Tzortziou, A. F. Bais, K. Tourpali, and J. Herman, "Interannual natural fluctuations in erythemal doses at ground level", in **Atmospheric Ozone, Proc. Of the Quadr. Ozone Symposium**, July 2000, Sapporo, 737-739, NASDA, 2000.
 21. Tourpali, K., R. van Dorland, C. J. E. Schuurmans, B. Steil, C. Bruhl, "Response of the MA-ECHAM/CHEM model to solar forcing: first results of a fully interactive model study", **Proceedings of the SPARC General Assembly**, November 2000, Mar del Plata, Argentina, 2001.
 22. Tourpali, K., R. van Dorland, C. J. E. Schuurmans, B. Steil, C. Bruhl, "A coupled GCM - chemical model study of the atmospheric response to solar UV forcing", **Proc of the International Climate Conference 2001**, Utrecht, The Netherlands, 2002.
 23. Zerefos C., K. Tourpali, D. Balis and L. Hood, Solar activity-ozone relationships of importance in erythemal irradiance and photolysis rates in the atmosphere, in **Proc of the XX Quadrennial Ozone Symposium**, 1-8 June 2004, Kos, Greece (ed. C. Zerefos), 39-40, 2004
 24. Zerefos, C., P. Zanis, E. Kosmidis, and K. Tourpali, Statistical trend analysis of UMKEHR data at selected northern hemisphere stations, **Proc. of the XX Quadrennial Ozone Symposium 1-8 June 2004**, pp. 1211-1212, Kos, Greece, 2004.
 25. Hood L., B. Soukharev , C. Zerefos , K. Tourpali, The Solar Cycle Variation of Stratospheric Ozone from Satellite Data: Comparisons with Ground-Based Data and Interpretation, **Proc of the XX**

- Quadrennial Ozone Symposium** 1-8 June 2004, pp. 1213-1216, Kos, Greece, 2004
26. Garane, K., A.F. Bais, K. Tourpali, C. Meleti, C.S. Zerefos, and S. Kazadzis, Variability of spectral UV irradiance at Thessaloniki, Greece, from 15 years measurements, in **Ultraviolet Ground- and Space-based Measurements, Models, and Effects V, Proc. SPIE**, 5886, San Diego, USA, 31 July-4 August 2005, edited by G. Bernhard, J.R. Slusser, J.R. Herman, and W. Gao, pp. 1-10, 2005.
 27. Alexandri G, D. Balis and K. Tourpali. Dependence of ozone measurements on stratospheric temperature, **Proc, of the 9th Conference of Meteorology, Climatology and Atmospheric Physics**, Thessaloniki 28-31 May 2008, 579-584, 2008
 28. Tourpali K., Bais A. F., Kazantzidis A. And Ccmval Pls, Projections Of Surface UV In The Course Of 21st Century **Proc, of the 10th Conference of Meteorology, Climatology and Atmospheric Physics**, Patras, 25-28 May 2010, 1159, 2010