

# Curriculum Vitae

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## General Data

Name : Christos Matsoukas  
Year of Birth : 1971  
Birthplace : Volos, Greece  
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University Hill, Mytilene, 81100, Greece  
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## Education

**1989-1994** Physics Degree from the Aristotle University of Thessaloniki, Greece  
**1994-2000** Doctor of Philosophy Degree from the Department of Civil and  
Environmental Engineering, Univ. of Cincinnati, Ohio, USA  
Dissertation Title: "Precipitation Estimation and Forecast Using Radar  
and Rain Gage Measurements with Artificial Neural Networks".

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## Professional Experience

**9/1995 – 9/1998** Research Assistant at the University of Cincinnati under the  
NASA Earth System Science Fellowship, Ohio, USA  
**1/2001 – 7/2001** Teacher of the "Atmospheric Pollution" course of the  
"Agricultural Environment and Natural Resources  
Management" Program at the University of Thessaly, Greece  
**11/2001 – 6/2005** Post-doctoral fellow at the Environmental Research Laboratory,  
Foundation for Research and Technology – Hellas (FORTH),  
Greece.  
**9/2002 – 9/2005** Visiting Assistant Professor at the Department of Physics,  
University of Crete, Greece.  
**6/2005 – 9/2005** Visiting Scientist at the Climate Monitoring Satellite Application  
Facility (CMSAF) of the German Weather Service (DWD),  
Offenbach, Germany  
**10/2005 – 3/2006** Visiting Assistant Professor at the Department of Environment,  
University of the Aegean, Greece  
**7/2005 – 12/2007** Collaborating researcher at the Environmental Research  
Laboratory, Foundation for Research and Technology – Hellas  
(FORTH), Greece  
**4/2012 – 6/2012** Visiting Scientist at the Max Planck Institute for Meteorology, in  
Hamburg, Germany  
**3/2006 – Present** Assistant Professor at the Department of Environment,  
University of the Aegean, Greece

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## Research Interests

- Radiation transfer modeling in the atmosphere
  - Spatiotemporal characteristics of the hydrological cycle
  - Oceanic energy budget, ocean/atmosphere interactions
  - Anthropogenic effects on the planetary energy budget and climate change
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## Publications in Refereed Journals

1. **C. Matsoukas**, S. Islam, R. Kothari: "Fusion of radar and rain gage measurements for an accurate estimation of rainfall", *J. Geophys. Res.-Atmos.*, 104 (D24), 31437-31450, 1999
2. **C. Matsoukas**, S. Islam, I. Rodriguez-Iturbe: "Detrended fluctuation analysis of rainfall and streamflow time series", *J. Geophys. Res.-Atmos.*, 105 (D23), 29165-29172, 2000
3. K. G. Pavlakis, D. Hatzidimitriou, **C. Matsoukas**, E. Drakakis, N. Hatzianastassiou, I. Vardavas: "Ten-year global distribution of downwelling longwave radiation", *Atmos. Chem. Phys.*, 4: 127-142, 2004
4. N. Hatzianastassiou, **C. Matsoukas**, D. Hatzidimitriou, K. G. Pavlakis, E. Drakakis, and I. Vardavas: "Ten year radiation budget of the Earth: 1984-1993", *Int. J. Climatol.*, 24: 1785-1802, 2004
5. N. Hatzianastassiou, A. Fotiadi, **C. Matsoukas**, E. Drakakis, K. G. Pavlakis, D. Hatzidimitriou, I. Vardavas: "Long-term global distribution of Earth's shortwave radiation budget at the top of the atmosphere", *Atmos. Chem. Phys.*, 4: 1217-1235, 2004
6. D. Hatzidimitriou, I. Vardavas, K. G. Pavlakis, N. Hatzianastassiou, **C. Matsoukas**, E. Drakakis: "On the decadal increase in the tropical mean outgoing longwave radiation for the period 1984-2000", *Atmos. Chem. Phys.*, 4: 1419-1425, 2004
7. A. Fotiadi, N. Hatzianastassiou, **C. Matsoukas**, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, I. Vardavas: "Analysis of the decrease in the tropical mean outgoing shortwave radiation at the top of the atmosphere for the period 1984-2000", *Atmos. Chem. Phys.*, 5: 1721-1730, 2005
8. N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, I. Vardavas: "Global distribution of Earth's surface shortwave radiation budget", *Atmos. Chem. Phys.*, 5: 2847-2867, 2005
9. **C. Matsoukas**, A. C. Banks, N. Hatzianastassiou, K. G. Pavlakis, D. Hatzidimitriou, E. Drakakis, P. W. Stackhouse, I. Vardavas: "Seasonal heat budget of the Mediterranean Sea", *J. Geophys. Res.-Oceans*, 110, C12008, doi:10.1029/2004JC002566, 2005
10. A. Fotiadi, N. Hatzianastassiou, P. W. Stackhouse Jr., **C. Matsoukas**, E. Drakakis, K. G. Pavlakis, D. Hatzidimitriou, I. Vardavas: "Spatial and temporal distribution of long-term solar surface radiation budget over Greece", *Q. J. Roy. Meteor. Soc.*, 132, No. 621, 2693-2718, 2006
11. A. Fotiadi, N. Hatzianastassiou, E. Drakakis, **C. Matsoukas**, K. G. Pavlakis, D. Hatzidimitriou, E. Gerasopoulos, N. Mihalopoulos, and I. Vardavas: "Aerosol physical and optical properties in the Eastern Mediterranean Basin, Crete, from Aerosol Robotic Network data", *Atmos. Chem. Phys.*, 6: 5399-5413, 2006
12. N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, E. Drakakis, P. W. Stackhouse, P. Koepke, K. G. Pavlakis, D. Hatzidimitriou and I. Vardavas:

- “Modelling the direct effect of aerosols in the solar near-infrared on a planetary scale”, *Atmos. Chem. Phys.*, 7, 3211-3229, 2007
13. K. G. Pavlakis, D. Hatzidimitriou, E. Drakakis, **C. Matsoukas**, A. Fotiadi, N. Hatzianastassiou, and I. Vardavas: “ENSO surface longwave radiation forcing over the tropical Pacific”, *Atmos. Chem. Phys.*, 7, 2013-2026, 2007
  14. N. Hatzianastassiou, **C. Matsoukas**, E. Drakakis, P. W. Stackhouse, P. Koepke, A. Fotiadi, K. G. Pavlakis, and I. Vardavas: “The direct effect of aerosols on solar radiation based on satellite observations, reanalysis datasets, and spectral aerosol optical properties from Global Aerosol Data Set (GADS)”, *Atmos. Chem. Phys.*, 7, 2585-2599, 2007
  15. **C. Matsoukas**, A. C. Banks, K. G. Pavlakis, N. Hatzianastassiou, P. W. Stackhouse, I. Vardavas: “Seasonal heat budget of the Red and Black Seas”, *J. Geophys. Res.-Oceans*, 112, C10017, doi:10.1029/2006JC003942, 2007
  16. K. G. Pavlakis, N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, I. Vardavas: “ENSO surface shortwave radiation forcing over the Pacific”, *Atmos. Chem. Phys.*, 8, 5565-5577, 2008
  17. **C. Matsoukas**, A. C. Banks, K. G. Pavlakis, N. Hatzianastassiou, P. W. Stackhouse Jr., I. Vardavas: “Reply to comment by Kara and Barron on ‘Seasonal heat budgets of the Red and Black Seas’”, *J. Geophys. Res.-Oceans*, 113, C12009, doi:10.1029/2008JC004917, 2008
  18. R. Mueller, **C. Matsoukas**, A. Gratzki, H. D. Behr, R. Hollmann: “The CM-SAF operational scheme for the satellite based retrieval of solar surface irradiance - a LUT based eigenvector hybrid approach”, *Remote Sens. Environ.*, 113(5), 1012-1024, doi:10.1016/j.rse.2009.01.012, 2009
  19. **C. Matsoukas**, N. Hatzianastassiou, A. Fotiadi, K. G. Pavlakis, I. Vardavas: “The effect of Arctic sea-ice extent on the absorbed (net) solar flux at the surface, based on ISCCP-D2 cloud data for 1983–2007”, *Atmos. Chem. Phys.*, 10, 777-787, 2010
  20. **C. Matsoukas**, N. Benas, N. Hatzianastassiou, K. G. Pavlakis, M. Kanakidou, I. Vardavas: “Potential evaporation trends over land between 1983–2008: Driven by radiative fluxes or vapour-pressure deficit?”, *Atmos. Chem. Phys.*, 11, 7601-7616, 2011
  21. N. Benas, N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, N. Mihalopoulos, I. Vardavas: “Aerosol shortwave daily radiative effect and forcing based on MODIS Level 2 data in the Eastern Mediterranean (Crete)”, *Atmos. Chem. Phys.*, 11, 12647-12662, 2011
  22. N. Hatzianastassiou, C. D. Papadimas, **C. Matsoukas**, K. Pavlakis, A. Fotiadi, M. Wild, I. Vardavas: “Recent regional surface solar radiation dimming and brightening patterns: inter-hemispherical asymmetry and a dimming in the Southern Hemisphere”, *Atmos. Sci. Lett.*, doi: 10.1002/asl.361, 2012
  23. C. D. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, M. Kanakidou, N. Mihalopoulos, I. Vardavas: “The direct effect of aerosols on solar radiation over the broader Mediterranean basin”, *Atmos. Chem. Phys.*, 12, 7165-7185, 2012
  24. C. A. Randles, S. Kinne, G. Myhre, M. Schulz, P. Stier, J. Fischer, L. Doppler, E. Highwood, C. Ryder, B. Harris, J. Huttunen, Y. Ma, R. T. Pinker, B. Mayer, D. Neubauer, R. Hitzenberger, L. Oreopoulos, D. Lee, G. Pitari, G. Di Genova, J. Quaas, Fred G. Rose, S. Kato, S. T. Rumbold, I. Vardavas, N. Hatzianastassiou, **C. Matsoukas**, H. Yu, F. Zhang, H. Zhang, P. Lu: “Intercomparison of shortwave radiative transfer schemes in global aerosol modeling: results from the AeroCom Radiative Transfer Experiment”, *Atmos. Chem. Phys.*, 13, 2347-2379, doi:10.5194/acp-13-2347-2013, 2013
  25. V. Pappas, N. Hatzianastassiou, C. Papadimas, **C. Matsoukas**, S. Kinne, I. Vardavas: “Evaluation of spatio-temporal variability of Hamburg Aerosol

- Climatology against aerosol datasets from MODIS and CALIOP”, *Atmos. Chem. Phys.*, 13, 8381-8389, doi:10.5194/acp-13-8381-2013, 2013
26. N. Cleridou, N. Benas, **C. Matsoukas**, B. Croke, I. Vardavas : “Water resources of Cyprus under changing climatic conditions: Modelling approach, validation and limitations”, *Environ. Modell. Softw.*, 60, 202-218, 2014
  27. M. Pyrina, N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, C. D. Papadimas, K. G. Pavlakis, I. Vardavas: “Cloud effects on the solar and thermal radiation budgets of the Mediterranean basin”, *Atmos. Res.*, 152, 14-28, 2015
  28. M. B. Korras-Carraca, N. Hatzianastassiou, **C. Matsoukas**, A. Gkikas, C. D. Papadimas: “The regime of aerosol asymmetry parameter over Europe, the Mediterranean and the Middle East based on MODIS satellite data: evaluation against surface AERONET measurements”, *Atmos. Chem. Phys.*, 15, 13113–13132, 2015
  29. E. Triantafyllou, M. Giamarelou, E. Bossioli, P. Zarmpas, C. Theodosi, **C. Matsoukas**, M. Tombrou, N. Mihalopoulos, G. Biskos : “Particulate pollution transport episodes from Eurasia to a remote region of northeast Mediterranean”, *Atmos. Environ.*, 128, 45–52, 2016
  30. A. A. Floutsi, M. B. Korras-Carraca, **C. Matsoukas**, N. Hatzianastassiou, G. Biskos : “Climatology and trends of aerosol optical depth over the Mediterranean basin during the last 12 years (2002–2014) based on Collection 006 MODIS-Aqua data ”, *Sci. Total Environ.*, 551-552, 292-303, doi: 10.1016/j.scitotenv.2016.01.192, 2016
  31. A. Lázaro, A. Chroni, T. Tschulin, J. Devalez, **C. Matsoukas**, T. Petanidou : “Electromagnetic radiation of mobile telecommunication antennas affects the abundance and composition of wild pollinators”, *J. Insect Conserv.*, doi: 10.1007/s10841-016-9868-8, 2016
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## Publications in Non-refereed Journals

Z. Hu, S. Islam and **C. Matsoukas**: "Relationships between spin-up time and the time scale of forcing data", *GEWEX News*, Vol. 6, No. 1, 1996

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## Conferences

- 11 – 15 December 1995, *AGU Fall Meeting, San Francisco, California, U.S.A.*
- 1) **C. Matsoukas**, Z. Hu and S. Islam: "On the relationship between spin-up processes and time scale of forcing data for land surface models", *Eos Trans.*, 76(46), Fall Meet. Suppl., p. 92, 1995
- 20 – 24 May 1996, *AGU Spring Meeting, Baltimore, Maryland, U.S.A.*
- 2) **C. Matsoukas**, S. Islam and R. Kothari.: "Fusion of raingauge and radar measurements for an accurate estimation of rainfall"
- 2 – 7 February 1997, *77th AMS Annual Meeting and Exhibition, American Meteorological Society, Long Beach, California, U.S.A.*
- 3) **C. Matsoukas**, S. Islam and R. Kothari: "Multisensor fusion of precipitation measurements",

29 June – 1 July 1999, *Sixth International Conference on Precipitation: Predictability of Rainfall at the Various Time Scales, Hawaii, U.S.A.*

- 4) **C. Matsoukas**, S. Islam and R. Kothari: "Intercomparison of cokriging and artificial neural network for the multi-sensor estimation of rainfall"

25 – 28 September 2002, *6<sup>th</sup> Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Ioannina, Greece*

- 5) N. Hatzianastassiou, **C. Matsoukas**, D. Hatzidimitriou, K. Pavlakis, E. Drakakis, I. Vardavas, "Global shortwave radiation budget"
- 6) K. Pavlakis, D. Hatzidimitriou, N. Hatzianastassiou, E. Drakakis, **C. Matsoukas**, I. Vardavas: "The Earth's longwave radiation budget"
- 7) **C. Matsoukas**, E. Drakakis, K. Pavlakis, N. Hatzianastassiou, D. Hatzidimitriou, I. Vardavas: "Validation of a radiation transfer model against downward longwave flux GEBA/BSRN measurements"

28 - 30 September 2004, *7<sup>th</sup> Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Cyprus*

- 8) A. Fotiadi, G. Habilomatis, **C. Matsoukas**, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, N. Hatzianastassiou, and I. Vardavas: "The Surface Shortwave Radiation Budget over the broader Greek area for the period 1984-2000"

24 – 29 April 2005, *European Geosciences Union, General Assembly 2005, Vienna, Austria*

- 9) **C. Matsoukas**, A.C. Banks, N. Hatzianastassiou, I. Vardavas: "The seasonal energy budgets of the Mediterranean and Red Seas"
- 10) I. Vardavas, **the ESRB team**: "The Earth's radiation budget on a daily 1x1 degree resolution from the ESRB project"

2 – 7 April 2006, *European Geosciences Union, General Assembly 2006, Vienna, Austria*

- 11) A. Fotiadi, E. Drakakis, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas "Aerosol properties in the eastern Mediterranean based on the AERONET station at FORTH/Crete"
- 12) **C. Matsoukas**, K. G. Pavlakis, N. Hatzianastassiou, E. Drakakis, A. Fotiadi, D. Hatzidimitriou, P. W. Stackhouse, I. Vardavas: "Global distribution of 10-year daily mean shortwave and longwave radiation at one degree spatial resolution"
- 13) N. Hatzianastassiou, **C. Matsoukas**, A. Fotiadi, I. Vardavas: "Modelling the direct effect of aerosols on near-infrared solar radiation on a global scale"

24 – 26 May 2006, *8<sup>th</sup> Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Athens, Greece*

- 14) N. Hatzianastassiou, A. Fotiadi, C. Papadimas, **C. Matsoukas**, M. Drakakis, D. Hatzidimitriou, I. Vardavas: "Study of aerosol radiation forcing over the Eastern Mediterranean"
- 15) A. Fotiadi, N. Hatzianastassiou, M. Drakakis, **C. Matsoukas**, K. Pavlakis, D. Hatzidimitriou, N. Mihalopoulos, I. Vardavas: "Study of the aerosol optical properties in Crete (Eastern Mediterranean)"

- 16) **C. Matsoukas**, S. Kazadzis, A. Kazantzidis, N. Hatzianastassiou, I. Vardavas, A. Bais: "Comparison of calculated UV solar irradiance values from FORTH model with spectral measurements and results from LibRadtran model"

*15 – 20 April 2007, European Geosciences Union, General Assembly 2007, Vienna, Austria*

- 17) **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: "Multiyear global analysis of the aerosol direct radiative effect from satellite TOMS data"
- 18) N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: "Modelling the direct effect of aerosols on solar radiation based on satellite observations, reanalysis datasets, and spectral aerosol optical properties from Global Aerosol Data Set (GADS)"

*28 – 31 May 2008, 9<sup>th</sup> Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Thessaloniki, Greece*

- 19) C. D. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, and I. Vardavas: "Aerosol forcing on the solar energy budget over the greater area of Greece for the period 2000 – 2005"
- 20) A. Fotiadi, N. Hatzianastassiou, M. Drakakis, **C. Matsoukas**, K. Pavlakis, C. Papadimas, I. Vardavas: "Study of fine and coarse mode aerosol events from AERONET station data in Crete (Eastern Mediterranean) over the period 2003-2006"

*24 – 29 August 2008, European Aerosol Conference (EAC 2008), Thessaloniki, Greece*

- 21) A. Fotiadi, N. Hatzianastassiou, N. Benas, **C. Matsoukas**, and I. Vardavas: "Aerosol solar radiative effect during fine and coarse aerosol events in the Eastern Mediterranean (Crete)"

*26 – 29 March 2009, 8th Environmental Conference of the Greek Physicists Union, Heraklion, Crete, Greece*

- 22) N. Benas, N. Cleridou, C. Papadimas, A. Fotiadi, K. Pavlakis, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: "Energy budget of the solar and terrestrial radiation at the Earth's surface"

*13 – 18 April 2009, European Geosciences Union, General Assembly 2009, Vienna, Austria*

- 23) D. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, and I. Vardavas: "Aerosol direct radiative effect on solar radiation on planetary scale based on 7-year spectral aerosol optical properties from MODIS"
- 24) N. Hatzianastassiou, C. D. Papadimas, **C. Matsoukas**, K. Pavlakis, A. Fotiadi, M. Wild, and I. Vardavas: "Long-term changes of aerosol optical and radiative properties and their role in global dimming and brightening", European Geosciences Union

*6 – 11 September 2009, European Aerosol Conference (EAC 2009), Karlsruhe, Germany*

- 25) C. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, and I. Vardavas: “Comparison between MODIS and GADS aerosols asymmetry factor on a planetary scale”

*2 – 4 November 2009, International workshop on Atmospheric Composition Changes: Climate-Chemistry Interactions, Lecce, Italy*

- 26) N. Hatzianastassiou, C. Papadimas, **C. Matsoukas**, I. Vardavas: “The direct effect of aerosols on solar radiation in the dawn of the 21st century, its changes and their role for global dimming and brightening”

*2 – 7 May 2010, European Geosciences Union, General Assembly 2010, Vienna, Austria*

- 27) C. D. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: “Anthropogenic aerosols over southern Europe and their direct effect on solar radiation”

*25 – 28 May 2010, 10th International Conference on Meteorology, Climatology and Atmospheric Physics, Patras, Greece*

- 28) V. Pappas, N. Hatzianastassiou, C. Papadimas, **C. Matsoukas**, S. Kinne, I. Vardavas: “Spatial and temporal variability of the vertical distribution of aerosols and its direct effect on solar radiation for the Mediterranean Basin”  
29) C. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: “The direct effect of anthropogenic aerosols on solar radiation over the broader Mediterranean Region”

*3 – 8 April 2011, European Geosciences Union, General Assembly 2011, Vienna, Austria*

- 30) N. Hatzianastassiou, C. Papadimas, **C. Matsoukas**, A. Fotiadi, K. Pavlakis, M. Wild, I. Vardavas: “Patterns of surface solar radiation dimming and brightening at the turn of 21st century”  
31) C. Papadimas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: “The effect of clouds on shortwave radiation over the Mediterranean basin based on recent satellite data”

*22 – 27 April 2012, European Geosciences Union, General Assembly 2012, Vienna, Austria*

- 32) V. Pappas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: “Vertical distributions of aerosols and clouds over the greater Mediterranean basin using CALIOP observations”  
33) N. Hatzianastassiou, C. D. Papadimas, **C. Matsoukas**, K. Pavlakis, A. Fotiadi, M. Wild, I. Vardavas: “Features and causes of recent surface solar radiation dimming and brightening patterns”

*30 May – 1 June 2012, 11th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece*

- 34) M. Pyrina, C. D. Papadimas, A. Fotiadi, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: “Cloud radiative effects on solar radiation over the eastern Mediterranean basin from 1984 to 2007”

*06 – 10 August 2012, International Radiation Symposium 2012, Berlin, Germany*

- 35) N. Hatzianastassiou, T. Kyrtzidis, C. Papadimas, **C. Matsoukas**, M. Wild, I. Vardavas: “Solar dimming and brightening in the second half of 20th century based on ERA-40 Reanalysis Project”

*04-07 October 2012, 6th Congress of the Hellenic Ecological Society, University of Athens campus, Athens*

- 36) A. Chroni, T. Tscheulin, **C. Matsoukas**, T. Petanidou: “Impact of electromagnetic radiation of mobile telecommunication antennas on biodiversity: the case of pollinators”

*07-12 April 2013, European Geosciences Union, General Assembly 2013, Vienna, Austria*

- 37) V. Pappas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: “Aerosol effect on atmospheric heating rates in the Mediterranean region using vertically resolved satellite aerosol data”  
38) C. Papadimas, A. Gkikas, N. Hatzianastassiou, **C. Matsoukas**, S. Kazadzis, S. Basart, J. Baldasano, I. Vardavas: “Dust radiative effect over Europe, Mediterranean, Sahara and Middle East from a radiative transfer model using BSC-DREAM8b aerosol optical data”

*06-09 September 2013, Royal Meteorological Society Student Conference, Reading, U.K.*

- 39) M. Korras-Carraca, V. Pappas, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: “Aerosol effects on atmospheric heating/cooling rates on global scale using vertically resolved satellite aerosol data”

*27 April – 2 May 2014, European Geosciences Union, General Assembly 2014, Vienna, Austria*

- 40) M. B. Korras Carraca, V. Pappas, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: “ Global profiles of the direct aerosol effect using vertically resolved aerosol data”  
41) N. Hatzianastassiou, C. D. Papadimas, A. Gkikas, **C. Matsoukas**, A. M. Sayer, N. C. Hsu, I. Vardavas: “ Aerosol radiative effects over global arid and semi-arid regions based on MODIS Deep Blue satellite observations”

*28-31 May 2014, 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Greece*

- 42) M. B. Korras-Carraca, V. Pappas, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: “Aerosol forcing efficiency from the FORTH radiative transfer model with CALIOP AOD vertical profiles”  
43) N. Benas, **C. Matsoukas**, A. Fotiadi, N. Hatzianastassiou, K. Pavlakis, I. Vardavas: “The aerosol effect on potential evaporation at the Athens main water supply reservoirs ”  
44) M. B. Korras-Carraca, V. Pappas, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: “Aerosol effect on atmospheric heating rate profiles using vertically resolved satellite aerosol data”



- 45) V. Pappas, N. Hatzianastassiou, **C. Matsoukas**, I. Vardavas: "Sensitivity of the atmospheric heating/cooling rate profile to the vertical distribution of aerosols"
- 46) M. Pyrina, C. D. Papadimas, A. Fotiadi, K. Pavlakis, **C. Matsoukas**, N. Hatzianastassiou, I. Vardavas: "Cloud effects on tropical longwave radiation budget"

*12-17 April 2015, European Geosciences Union, General Assembly 2015, Vienna, Austria*

- 47) A. Floutsi, M. Korras-Carraca, **C. Matsoukas**, G. Biskos, "The regime of aerosol optical depth over Central Asia based on MODIS Aqua Deep Blue data "
- 48) M. B. Korras-Carraca, N. Hatzianastassiou, **C. Matsoukas**, A. Gkikas, C. Papadimas, A. Sayer, "The regime of aerosol asymmetry parameter and Angstrom exponent over Europe, Mediterranean and Middle East based on MODIS satellite data. Intercomparison of MODIS-Aqua C051 and C006 retrievals "

*5-7 June 2015, 8th Conference on Environmental Policy and Management, Mytilene, Greece*

- 49) A. A. Floutsi, M. B. Korras-Caraca, **C. Matsoukas**, "Optical depth of particulate matter over the Mediterranean"

*3-5 September 2015, 14th International Conference on Environmental Science and Technology, CEST2015, Rhodes, Greece*

- 50) E. Triantafyllou, M. Giamarelou, E. Bossioli, P. Zampas, C. Theodosi, **C. Matsoukas**, M. Tombrou, N. Mihalopoulos, G. Biskos, "Long-range transported air pollutants from continental areas to the remote region of the North Aegean Sea "
- 51) A. Lázaro, T. Tschulin, A. Chroni, J. Devalez, **C. Matsoukas**, T. Petanidou, "Effect of mobile telecommunication antennas on the abundance of wild pollinators"

*6-11 September 2015, European Aerosol Conference 2015, Milan, Italy*

- 52) A. A. Floutsi, M. B. Korras-Caraca, **C. Matsoukas**, G. Biskos, "Aerosol optical properties and prevailing aerosol type over the Mediterranean"

*17-22 April 2016, European Geosciences Union General Assembly, Vienna, Austria*

- 53) A. A. Floutsi, M. B. Korras-Carraca, **C. Matsoukas**, G. Biskos, "Aerosol optical depth over central north Asia based on MODIS-Aqua data "

*19-21 September 2016, 13th International Conference on Meteorology, Climatology and Atmospheric Physics, Thessaloniki, Greece*

- 54) M. B. Korras-Carraca, P. E. Charalambidis, **C. Matsoukas**, C. Pilinis, C. Fountoukis, S. N. Pandis, N. Hatzianastassiou, I. Vardavas, "Aerosol radiative effects over Europe from the FORTH radiation transfer model with AtmOptC aerosol optical properties"

- 55) V. Stathopoulos, **C. Matsoukas**, “Long-term memory and multifractality of downwelling longwave flux at stations worldwide”
- 56) T. Laosoglou, N. Hatzianastassiou, N. Benas, A. Fotiadi, **C. Matsoukas**, I. Vardavas, “Study of the total and ultraviolet solar radiation in the alpine region of Ioannina (northwestern Greece)”
- 57) P. Georgakaki, C. D. Papadimas, N. Hatzianastassiou, A. Fotiadi, **C. Matsoukas**, P. W. Stackhouse, M. Kanakidou, I. Vardavas, “High-resolution direct effect of aerosols on solar radiation over the eastern Mediterranean basin”

*23-28 April 2017, European Geosciences Union General Assembly, Vienna, Austria*

- 58) A. A. Floutsi, M. B. Korras-Carraca, **C. Matsoukas**, R. Riva, G. Biskos, “Aerosol optical properties over Northwestern European seas”
- 59) E. Ioannidis, C. D. Papadimas, A. Fotiadi, **C. Matsoukas**, N. Hatzianastassiou, M. Wild, I. Vardavas, “Recent global dimming and brightening and its causes from a satellite perspective”
- 60) P. Georgakaki, C. D. Papadimas, N. Hatzianastassiou, A. Fotiadi, **C. Matsoukas**, P. Stackhouse, M. Kanakidou, I.M. Vardavas, “Aerosol direct effect on solar radiation over the eastern Mediterranean Sea based on AVHRR satellite measurements “

## **Research programs**

- 2001-2004** «European Component of GEWEX Surface Radiation Budget (ESRB)», 5<sup>th</sup> Framework Program, European Commission
- 2004-2006** “The Impact of Aerosol Radiative Forcing on the Energy and Water Budget of the Eastern Mediterranean”, Greek Secretariat of Research and Technology, Program “Pythagoras II”
- 2005-2006** “Towards sustainable water use on Mediterranean Islands (MEDIS)”, 5<sup>th</sup> Framework Program, European Commission
- 2005-2006** “Study and experimental estimation of photovoltaic potential in Crete, using a multi-planar photovoltaic panel configuration”, Greek Ministry of Education, Program “Archimedes”
- 2005-2006** “Aerosol effects on the energy budget and the chemical composition of the atmosphere over the Mediterranean, using satellite data and 3-dimensional atmospheric transport, chemistry, and energy budget models”, Greek Secretariat of Research and Technology, Program “PENED”
- 2008-2009** “Water resources of Greece under changing climatic conditions”, I. Latsis Foundation, Greece
- 2012-2015** “Determination of the sources and physicochemical properties of fine and ultrafine suspended particles of atmospheric aerosol, which affect the climate of Greece, Greek Ministry of Education, Program “Thales”

## **Reviewer for**

- Journal of Geophysical Research
  - Environmental Modelling and Software
  - Stochastic Environmental Research & Risk Assessment
  - Geophysical Research Letters
  - Indian Journal of Radio and Space Physics
  - Remote Sensing of Environment
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## **Languages**

- Greek (Mother Tongue)
  - English (Fluent)
  - French (Basic)
  - German (Basic)
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