

SHORT CURRICULUM VITAE

Last Name: Hatzianastassiou
First Name: Nikolaos

Date of Birth: 22 May 1968
Place of Birth: Serres, Greece
Nationality: Greek
Marital Status: Married, 1 child
Home address: Amfitritis 2, 45221 Ioannina
Greece
Home phone number: ++30 2651 36013
Work address: Laboratory of Meteorology, Physics Department,
University of Ioannina, 45110 Ioannina, Greece
Work phone number: ++30 26510 08539
Work fax number: ++30 26510 08699
email: nhatzian@cc.uoi.gr

Current Position: Assistant Professor
Current Employer: University of Ioannina, Physics Department
Ioannina, Greece

PROFILE:

1983 - 1986 **4o LIKIO SERRON (Lyceum)**
Diploma: Apolitirion
Grade: Excellent (19₄/10/20)

1986 - 1990 **ARISTOTELIAN UNIVERSITY OF
THESSALONIKI (GREECE) – Physics
Department**
Diploma: Ptihion (Bachelor's degree)
Grade: Very good (7,39/10)

Diploma Thesis: Diurnal variation of water vapour
amounts in Thessaloniki, Greece, during the period
1970-1980

Supervisor: Prof. Haralambos Sahsamanoglou

1991 - 1992 **UNIVERSITE BLAISE PASCAL (CLERMONT-
FERRAND II) FRANCE - Laboratoire de
Meteorologie Physique (LaMP)**
*Diploma: D.E.A (Diplome d'Etudes Approfondies des
Sciences de la Terre et de l'Atmosphere, option
Atmosphere, MSc degree)*
Grade: Assez bien

Diploma Thesis: Simulations numeriques de la couche limite atmospherique nuageuse (Marginal Ice Zone Experiment 1984, M.I.Z.EX'84)
Numerical simulations of the cloud-topped atmospheric boundary layer (M.I. Z.EX'84)

Supervisor: Prof. Charles Fravalo

1994 - 1997

UNIVERSITE BLAISE PASCAL (CLERMONT-FERRAND II) FRANCE - Laboratoire de Meteorologie Physique (LaMP)

Diploma: Doctorat (PhD)

Grade: Très honorable

Diploma Thesis: Etude de l'effet indirect des particules d'aérosol sur le bilan radiatif lors de cycles nuageux consecutifs
Study of the indirect effect of aerosol particles during repeated cloud cycles

Supervisor: Prof. Andrea Flossmann

1997, July-August

International School of Space Physics and Tropospheric Chemistry, CNES (Centre National D'Etudes Spatiales), Riom, France

1997 - 2000

FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH) – Environmental Research Laboratory (ERL)

Heraklion, Crete, Greece

Position: Research Scientist

2000 - 2006

UNIVERSITY OF IOANNINA – Physics Department, Laboratory of Meteorology

Ioannina, Greece

Position: Lecturer

2010, May-July

PRINCETON UNIVERSITY – Geophysical Fluid Dynamics Laboratory (GFDL)

Princeton, NJ, USA

Position: Visiting Fellow

2006 -

UNIVERSITY OF IOANNINA – Physics Department, Laboratory of Meteorology, Ioannina

Position: Assistant Professor

PUBLICATIONS

International Journals with referees

- [1] **N. Hatzianastassiou**, W. Wobrock, A. I. Flossmann: The role of droplet spectra for cloud radiative properties; *Quarterly Journal of the Royal Meteorological Society*, 123, No 544, 2215-2230, 1997
- [2] **N. Hatzianastassiou**, W. Wobrock, A. I. Flossmann: The effect of cloud processing of aerosol particles on clouds and radiation, *Tellus*, 50B, 478-490, 1998
- [3] **N. Hatzianastassiou**, B. Croke, K. Koutoulaki, I. M. Vardavas: A model for the longwave radiative budget of the northern hemisphere: Comparison with Earth Radiation Budget Experiment data, *Journal of Geophysical Research*, 104, 9489-9500, 1999
- [4] **N. Hatzianastassiou**, I. M. Vardavas: The shortwave radiation budget of the Northern Hemisphere using ISCCP and NCEP/NCAR climatological data, *Journal of Geophysical Research*, 104, 24401-24421, 1999
- [5] **N. Hatzianastassiou**, I. M. Vardavas: The net radiation budget of the Northern Hemisphere, *Journal of Geophysical Research*, 104, 27341-27359, 1999
- [6] **N. Hatzianastassiou**, I. M. Vardavas: Longwave radiation budget of the Southern Hemisphere using ISCCP C2 climatological data, *Journal of Geophysical Research*, 106, 17785-17798, 2001
- [7] **N. Hatzianastassiou**, N. Cleridou, I. M. Vardavas: Polar cloud climatologies derived from ISCCP and ERBE data, *Journal of Climate*, 14, 3851-3862, 2001
- [8] **N. Hatzianastassiou**, I. M. Vardavas: Shortwave radiation budget of the Southern Hemisphere using ISCCP C2 and NCEP/NCAR climatological data, *Journal of Climate*, 14, 4319-4329, 2001
- [9] **N. Hatzianastassiou**, B. Katsoulis, I. M. Vardavas: Global Distributions of Aerosol Direct Radiative Forcings in the Ultraviolet and Visible arising under Clear Skies. Model, Input Data and Model Results, *Tellus*, 56B, 51-71, 2004
- [10] K. G. Pavlakis, D. Hatzidimitriou, C. Matsoukas, E. Drakakis, **N. Hatzianastassiou**, I. M. Vardavas: Ten-year global distribution of downwelling longwave radiation. *Atmospheric Chemistry and Physics*, 4, 127-142, 2004
- [11] **N. Hatzianastassiou**, C. Matsoukas, D. Hatzidimitriou, K. Pavlakis, E. Drakakis, I. Vardavas: Ten year Radiation Budget of the Earth: 1984-1993, *International Journal of Climatology*, 24, 1785-1802, 2004
- [12] **N. Hatzianastassiou**, B. Katsoulis, I. M. Vardavas: Sensitivity Analysis of Aerosol Direct Radiative Forcings in the Ultraviolet - Visible wavelengths and Consequences for the Heat Budget, *Tellus*, 56B, 368-381, 2004

- [13] K. G. Pavlakis, **N. Hatzianastassiou**, C. Matsoukas, E. Drakakis, I. M. Vardavas: On the Decadal Increase in the Tropical Mean Outgoing Longwave Radiation for the period 1984-2000, *Atmospheric Chemistry and Physics*, 4, 1419-1425, 2004
- [14] **N. Hatzianastassiou**, A. Fotiadi, C. Matsoukas, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, I. Vardavas: Long-Term Global Distribution of Earth's Shortwave Radiation Budget at the Top Of Atmosphere, *Atmospheric Chemistry and Physics*, 4, 1217-1235, 2004
- [15] C. Pappas, **N. Hatzianastassiou**, B. D. Katsoulis: Analysis of cold spell characteristics in the Greek region, *Climate Research*, 27, 211-223, 2004
- [16] B. D. Katsoulis, **N. Hatzianastassiou**: Analysis of hot spell characteristics in the Greek region, *Climate Research*, 28, 229-241, 2005
- [17] C. Matsoukas, A. C. Banks, **N. Hatzianastassiou**, K. G. Pavlakis, D. Hatzidimitriou, E. Drakakis, P. W. Stackhouse, I. Vardavas: Monthly energy budget of the Mediterranean Sea, *Journal of Geophysical Research*, 110, C12008, doi:10.1029/2004JC002566, 2005
- [18] **N. Hatzianastassiou**, C. Matsoukas, A. Fotiadi, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, I. Vardavas: Global Distribution of Earth's Surface Shortwave Radiation Budget, *Atmospheric Chemistry and Physics*, 5, 2847-2867 2005
- [19] A. Fotiadi, **N. Hatzianastassiou**, C. Matsoukas, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, and I. Vardavas: Analysis of the Decrease in the Tropical Mean Outgoing Shortwave Radiation at the Top of Atmosphere for the period 1984-2000, *Atmospheric Chemistry And Physics*, 5, 1721-1730, 2005
- [20] A. Fotiadi, **N. Hatzianastassiou**, P. W. Stackhouse Jr, C. Matsoukas, K. G. Pavlakis, E. Drakakis, D. Hatzidimitriou, and I. Vardavas: Spatial and temporal distribution of long-term solar surface radiation budget over Greece, *Quarterly Journal of the Royal Meteorological Society*, 132, No 621, 2693-2718, 2006
- [21] A. Fotiadi, **N. Hatzianastassiou**, E. Drakakis, C. Matsoukas, K. G. Pavlakis, D. Hatzidimitriou, E. Gerasopoulos, N. Mihalopoulos, I. Vardavas: Aerosol physical and optical properties in the Eastern Mediterranean Basin, Crete, from Aerosol Robotic Network data, *Atmospheric Chemistry and Physics*, 6, 5399-5413, 2006
- [22] **N. Hatzianastassiou**, B. D. Katsoulis, and V. Antakis: Extreme nitrogen oxide and ozone concentrations in Athens atmosphere in relation to meteorological conditions, *Environmental Monitoring and Assessment*, 128, 447-464, 2007
- [23] N. Kalivitis, E. Gerasopoulos, M. Vrekoussis, G. Kouvarakis, N. Kubilay, **N. Hatzianastassiou**, I. Vardavas, N. Mihalopoulos: Dust transport over the eastern Mediterranean derived from Total Ozone Mapping Spectrometer, Aerosol Robotic Network, and surface measurements, *Journal of Geophysical Research*, 112, D03202, doi:10.1029/2006JD007510, 2007

- [24] K. G. Pavlakis, D. Hatzidimitriou, E. Drakakis, C. Matsoukas, A. Fotiadi, **N. Hatzianastassiou**, I. M. Vardavas: ENSO surface longwave radiation forcing over the tropical Pacific. *Atmospheric Chemistry and Physics*, 7, 2013-2026, 2007
- [25] **N. Hatzianastassiou**, C. Matsoukas, E. Drakakis, P. W. Stackhouse Jr, P. Koepke, A. Fotiadi, K. G. Pavlakis, I. M. 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). *Atmospheric Chemistry and Physics*, 7, 2585-2599, 2007
- [26] **N. Hatzianastassiou**, C. Matsoukas, A. Fotiadi, E. Drakakis, P. W. Stackhouse Jr, P. Koepke, K. G. Pavlakis, I. M. Vardavas: Modelling the direct effect of aerosols in the solar near-infrared on a planetary scale. *Atmospheric Chemistry and Physics*, 7, 3211-3229, 2007
- [27] C. Matsoukas, A. C. Banks, K. G. Pavlakis, **N. Hatzianastassiou**, P. W. Stackhouse, I. Vardavas: Seasonal heat budgets of the Red and Black Seas, *Journal of Geophysical Research*, 112, C10017, doi: 10.1029/2006JC003849, 2007
- [28] D. G. Kaskaoutis, H. D. Kambezidis, **N. Hatzianastassiou**, P. G. Kosmopoulos, K. V. S. Badarinath: Aerosol climatology: on the discrimination of aerosol types over four AERONET sites. *Atmospheric Chemistry and Physics Discussions*, 7, 6357-6411, 2007
- [29] D. G. Kaskaoutis, H. D. Kambezidis, **N. Hatzianastassiou**, P. G. Kosmopoulos, K. V. S. Badarinath: Aerosol climatology: dependence of the Angstrom exponent on wavelength over four AERONET sites. *Atmospheric Chemistry and Physics Discussions*, 7, 7347-7397, 2007
- [30] **N. Hatzianastassiou**, B. Katsoulis, J. Pnevmatikos, V. Antakis: Spatial and temporal variation of precipitation in Greece and surrounding regions based on Global Precipitation Climatology Project (GPCP) data. *Journal of Climate*, 21, 1349-1370, 2008
- [31] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, X. Querol, I. Vardavas: Spatial and temporal variability in aerosol properties over the Mediterranean basin based on 6-year (2000-2006) MODIS data. *Journal of Geophysical Research*, 113, D11205, doi:10.1029/2007JD009189, 2008
- [32] K. Pavlakis, **N. Hatzianastassiou**, C. Matsoukas, A. Fotiadi, and I. Vardavas: ENSO surface shortwave radiation forcing over the tropical Pacific. *Atmospheric Chemistry and Physics*, 8, 5565-5577, 2008
- [34] Matsoukas, C., A.C. Banks, K.G. Pavlakis, **N. Hatzianastassiou**, P.W. Stackhouse Jr., and I. Vardavas, Reply to comment by Kara and Barron on 'Seasonal heat budgets of the Red and Black seas', *J. Geophys. Res.*, 113, C12009, doi:10.1029/2008JC004917, 2008

- [33] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, M. Kanakidou, B. Katsoulis, I. Vardavas: Assessment of the MODIS Collections C005 and C004 aerosol optical depth products over the Mediterranean basin. *Atmospheric Chemistry and Physics*, 9, 2987-2999, 2009
- [35] **N. Hatzianastassiou**, A. Gkikas,, N. Mihalopoulos, O. Torres, and B. Katsoulis: Natural versus anthropogenic aerosols in the eastern Mediterranean basin derived from multi-year TOMS and MODIS satellite data. *Journal of Geophysical Research*, 114, D24202, doi:10.1029/2009JD011982, 2009
- [36] A. Gkikas, **N. Hatzianastassiou**, and N. Mihalopoulos: Aerosol events in the broader Mediterranean basin based on 7-year (2000-2007) MODIS C005 data. *Annales Geophysicae*, 27, 3509-2522, 2009
- [37] C.D. Papadimas, A.K. Fotiadi, **N. Hatzianastassiou**, I. Vardavas, and A. Bartzokas: Regional covariability and teleconnection patterns in surface solar radiation on a planetary scale. *International Journal of Climatology*, doi: 10.1002/joc.2031, in press, 2010
- [38] C. Matsoukas, **N. Hatzianastassiou**, A. Fotiadi, K.G. Pavlakis, and I. Vardavas, Arctic sea-ice extent and its effect on the absorbed (net) solar flux at the surface, based on ISCCP-D2 cloud data for 1983-2007, *Atmospheric Chemistry and Physics*, 10, 777-787, 2010
- [39] S. Myriokefalitakis, E. Vignati, K. Tsigaridis, C. Papadimas, J. Sciare, N. Mihalopoulos, M. C. Facchini, M. Rinaldi, F. J. Dentener, D. Ceburnis, **N. Hatzianastassiou**, C. D. O'Dowd, M. vanWeele, and M. Kanakidou, *Advances in Meteorology*, Article ID 939171, 16 pages, doi:10.1155/2010/939171, 2010
- [40] M. Kanakidou, N. Mihalopoulos, T. Kindap, U. Im, M. Vrekoussis, E. Gerasopoulos, E. Dermizaki, A. Unal, M. Koçak, K. Markakis, D. Melas, G. Kouvarakis, A. F. Youssef, A. Richter, **N. Hatzianastassiou**, A. Hilboll, F. Ebojie, F. Wittrock, C. von Savigny, J. P. Burrows, A. Ladstaetter-Weissenmayer and H. Moubasher, Megacities as hot spots of air pollution in the East Mediterranean, *Atmospheric Environment*, 45, 1223-1235, 2011
- [41] C. Matsoukas, N. Benas, **N. Hatzianastassiou**, K.G. Pavlakis, M. Kanakidou and I. Vardavas, Potential evaporation trends over land between 1983–2008: driven by radiative fluxes or vapour-pressure deficit?, *Atmospheric Chemistry and Physics*, 11, 7601-7616, 2011
- [42] E. Houssos, C. J. Lolis, A. Gkikas, **N. Hatzianastassiou**, and A. Bartzokas, On the Atmospheric Circulation Characteristics Associated with fog in Ioannina, north-western Greece, *International Journal of Climatology*, DOI: 10.1002/joc.2399, 2011
- [43] N. Benas, **N. Hatzianastassiou**, C. Matsoukas, A. Fotiadi, N. Mihalopoulos and I. Vardavas, Aerosol shortwave direct radiative effect and forcing based on

MODIS Level 2 data in the Eastern Mediterranean (Crete), *Atmospheric Chemistry and Physics*, 11, 12647-12662, 2011

- [44] **N. Hatzianastassiou**, C. D. Papadimas, C. Matsoukas, K. Pavlakis, A. Fotiadi, M. Wild, and I. Vardavas, Recent regional surface solar radiation dimming and brightening patterns: inter-hemispherical asymmetry and a dimming in the Southern Hemisphere, *Atmospheric Science Letters*, doi:10.1002/asl.361, 2011
- [45] A. Gkikas, E. E. Houssos, **N. Hatzianastassiou**, C. D. Papadimas, and A. Bartzokas, Synoptic conditions favouring the occurrence of aerosol episodes over the broader Mediterranean basin, *Quarterly Journal of the Royal Meteorological Society*, DOI: 10.1002/qj.978, 2011
- [46] C. D. Papadimas, A. Bartzokas, C. J. Lolis, and **N. Hatzianastassiou**, Sea Level Pressure – Air Temperature Teleconnections during Northern Hemisphere Winter, *Theoretical and Applied Climatology*, DOI: 10.1007/s00704-011-0523-8, 2012
- [47] M. Rojas, L. Z. Li, M. Kanakidou, **N. Hatzianastassiou**, G. Seze, and H. Le Treut, Winter weather regimes over the Mediterranean region: their role for the regional climate and projected changes in the 21st century, *Climate Dynamics*, submitted, under revision, 2012
- [48] C. D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, M. Kanakidou, N. Mihalopoulos, and I. Vardavas, The direct effect of aerosols on solar radiation over the broader Mediterranean basin, *Atmospheric Chemistry and Physics*, under revision, 2012
- [49] V. Pappas, **N. Hatzianastassiou**, C. Papadimas, C. Matsoukas, S. Kinne, and I. Vardavas, Spatio-temporal variability of global AeroCom aerosol optical depth and evaluation against MODIS and CALIOP data, *Atmospheric Chemistry and Physics*, submitted, 2012

Publications in Conference Proceedings with referees (peer review)

- [1] H. Sahsamanoglou, T. Makrogiannis, and **N. Hatzianastassiou**, 1993: Les précipitations dans les Balkans durant les quarante dernières années (Precipitations in Balkans during the last 40 years). 6ème Colloque Internationale de Climatologie, AIC (Association Internationale de Climatologie), Thessaloniki, 20-22 September 1993, pp. 217-226.
- [2] **N. Hatzianastassiou**, 1994: Numerical simulations of the atmospheric boundary layer in cloudy conditions (M.I.Z.EX'84). 2nd Greek National Conference on Meteorology Climatology and Atmospheric Physics, Thessaloniki, 29-30 September 1994, pp. 659-667.
- [3] **N. Hatzianastassiou**, W. Wobrock, and A. I. Flossmann, 1995: Simulations numériques de la redistribution du spectre d'aérosols lors d'un cycle (condensation/évaporation) d'un nuage convectif (Numerical simulations of the cloud processing of aerosol particles during a convective cloud cycle). Atelier de Modélisation, CNRM (Centre National de Recherches Meteorologiques), Toulouse, France, 28-30 November 1995, pp. 339-346.
- [4] **N. Hatzianastassiou**, W. Wobrock, and A. I. Flossmann, 1996: Effect of repeated cloud events on aerosol particles and their direct and indirect radiative properties, in Proceedings of 12th International Conference on Clouds and Precipitation (ICCP), Zurich, Switzerland, 19-23 August 1996, pp 943-946.
- [5] **N. Hatzianastassiou**, W. Wobrock, and A. I. Flossmann, 1996: On the indirect effect of aerosol particles on solar radiation, 3d Greek National Conference on Meteorology Climatology and Atmospheric Physics, Athens, 25-27 September 1996, pp. 187-192.
- [6] A. I. Flossmann, W. Wobrock, and **N. Hatzianastassiou**, 1999: Study of the evolution of the indirect effect of aerosol particles during cloud cycling. International Conference and Workshops. Ocean color, land surfaces, radiation and clouds, aerosols; the contribution of POLDER and new generation spaceborn sensors to global change studies, CNES (Centre National d'Etudes Spatiales), 18-22 January 1999, Meribel, France
- [7] **N. Hatzianastassiou**, W. Wobrock, and A. I. Flossmann, 2000: Influence of the cloud processing of aerosol particles on clouds and aerosol radiative properties during repeated cloud cycles, in Proceedings of 13^d International Conference on Clouds and Precipitation (ICCP), Reno, Nevada, USA, August 2000, pp 868-871.
- [8] **N. Hatzianastassiou**, 2001: The effect of aerosol processing by clouds on their direct effect and on the longwave radiation, in Proceedings of 5th Greek National Conference on Meteorology Climatology and Atmospheric Physics, Thessaloniki, September 2000, pp. 495-502.
- [9] **N. Hatzianastassiou**, N. Cleridou, and I. M. Vardavas, 2001: Global radiation budget using the new ISCCP D2 satellite data, in International Radiation Symposium IRS-2000, Current Problems in Atmospheric Radiation, W. L. Smith

and Yu. M. Timofeyev (Eds.). A. Deepak Publishing, Hampton, Virginia. pp. 524-528.

- [10] **N. Hatzianastassiou**, B. Katsoulis, and I. Vardavas, 2002: The direct effect of aerosols on shortwave radiation on a global scale, in Proceedings of 6th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Ioannina, Greece, September 2002, pp. 528-538.
- [11] **N. Hatzianastassiou**, C. Matsoukas, D. Hatzidimitriou, C. Pavlakis, E. Drakakis, and I. Vardavas, 2002: Global shortwave radiation budget, in Proceedings of 6th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Ioannina, Greece, September 2002, pp. 598-605.
- [12] C. Pappas, **N. Hatzianastassiou**, and B. Katsoulis, 2002: Analysis and forecast of cold spells in Greece, in Proceedings of 6th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Ioannina, Greece, September 2002, pp. 274-286.
- [13] C. Pavlakis, D. Hatzidimitriou, **N. Hatzianastassiou**, E. Drakakis, C. Matsoukas, and I. Vardavas, 2002: The Earth's longwave radiation budget, in Proceedings of 6th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Ioannina, Greece, September 2002, pp. 767-773.
- [14] C. Matsoukas, E. Drakakis, C. Pavlakis, **N. Hatzianastassiou**, D. Hatzidimitriou, and I. Vardavas, 2002: Validation of a radiation transfer model against downward longwave flux GEBA/BSRN measurements, in Proceedings of 6th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Ioannina, Greece, September 2002, pp. 731-738.
- [15] G. Habilomatis and **N. Hatzianastassiou**, 2004: The effects of clouds on the shortwave radiation budget on global scale, in Proceedings of 14th International Conference on Clouds and Precipitation (ICCP), Bologna, Italy, July 2004, pp. 383-386.
- [16] C. Mironakis, **N. Hatzianastassiou**, and B. Katsoulis, 2004: Aerosol transport in Mediterranean Basin, in Proceedings of 7th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Nicosia, Cyprus, September 2004, pp. 176-186.
- [17] A. Fotiadi, G. Habilomatis, **N. Hatzianastassiou**, and I. Vardavas, 2004: The solar surface radiation budget in the Greek area for the period 1984-1993, in Proceedings of 7th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Nicosia, Cyprus, September 2004, pp. 607-618.
- [18] **N. Hatzianastassiou**, and B. Katsoulis, 2004: The relation between extreme nitrogen oxides (NO_x) concentrations and meteorological conditions in Athens Basin, in Proceedings of 7th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Nicosia, Cyprus, September 2004, pp. 797-805.

- [19] C. Mironakis, **N. Hatzianastassiou**, and B. Katsoulis, 2004: Evaluation of satellite based aerosol climatological data for the Mediterranean Basin, in Proceedings of 7th Pan-Hellenic Geographical Conference of the Hellenic Geographical Association, Mitilene, Lesvos, Greece, 14-17 October 2004, pp. 90-97.
- [20] C. Matsoukas, A. C. Banks, **N. Hatzianastassiou**, K. G. Pavlakis, D. Hatzidimitriou, E. Drakakis, and I. Vardavas, 2004: The seasonal energy budget of the Mediterranean Sea, in Proceedings of 2nd ENVISAT Summer School, Frascati, Italy, 16-26 August 2004, pp. 90-97.
- [21] **N. Hatzianastassiou**, A. Gkikas, 2006: A multi-year study of aerosol optical properties over Greece, 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2006, pp. 48-59.
- [22] **N. Hatzianastassiou**, A. Fotiadi, C. D. Papadimas, Ch. Matsoukas, E. Drakakis, D. Hatzidimitriou, I. Vardavas, 2006: The aerosol effect on solar radiation in the eastern Mediterranean, 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2006, pp. 301-313.
- [23] **N. Hatzianastassiou**, C. D. Papadimas, A. K. Fotiadi and A. Bartzokas, 2006: A study on spatial and temporal variability of solar radiation on global scale, 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, in press.
- [24] A. Fotiadi, **N. Hatzianastassiou**, E. Drakakis, C. Matsoukas, K. Pavlakis, D. Hatzidimitriou, N. Mihalopoulos, I. Vardavas, 2006: Aerosol optical properties in Crete (eastern Mediterranean), 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2006, pp. 301-313.
- [25] **N. Hatzianastassiou**, V. Antakis, I. Pnevmatikos, E. Drakakis, B. Katsoulis, 2006: A study of precipitation in the Greek area by using climatological satellite and ground-based data, 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2006, pp. 344-354.
- [26] A. Kazantzidis, S. Kazadzis, C. Matsoukas, V. Amiridis, **N. Hatzianastassiou**, I. Vardavas, A.F. Bais, 2006: Comparison of calculated UV solar irradiance values from FORTH model with spectral measurements and results from LibRadTran model, 8th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2006, pp. 184-191.
- [27] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, 2008: Study of aerosol episodes in the greater Mediterranean basin using MODIS-Terra satellite data, 9th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Thessaloniki, Greece, May 2008, pp. 601-608.

- [28] C. D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, B. Katsoulis, I. Vardavas, 2008: Aerosol direct radiative effect on solar radiation over the broader Greek region during the period 2000-2004, 9th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Thessaloniki, Greece, May 2008, pp. 743-750.
- [29] A. Fotiadi, **N. Hatzianastassiou**, C. Matsoukas, K. Pavlakis, C. D. Papadimas, I. Vardavas, 2008: Coarse and fine aerosol episodes based on measurements from the AERONET station at Crete (eastern Mediterranean) during the 4-year period 2003-2006, 9th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Thessaloniki, Greece, May 2008, pp. 789-796.
- [30] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, X. Querol, I. Vardavas, 2008: Aerosol Optical Depth variability in the Mediterranean basin based on MODIS and AERONET data, Protection and Restoration of the Environment (PRE9), Kefalonia, Greece, p. 198-205.
- [31] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, M. Kanakidou, B. Katsoulis, I. Vardavas, 2008: Modelling the aerosol direct radiative effect on planetary scale using spectrally resolved MODIS aerosol optical properties, 2008 European Aerosol Conference Proceedings, Abstract T06A115O, Thessaloniki, Greece.
- [32] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, 2008: Study and characterization of aerosol episodes in the Mediterranean basin for the period 2000 – 2007 based on MODIS data, 2008 European Aerosol Conference Proceedings, Abstract T06A115O, Thessaloniki, Greece, in press.
- [33] A. Fotiadi, **N. Hatzianastassiou**, N. Benas, C. Matsoukas, I. Vardavas, 2008: Aerosol solar radiative effect during fine and coarse aerosol events in the eastern Mediterranean (Crete), 2008 European Aerosol Conference Proceedings, Abstract T06A117P, Thessaloniki, Greece.
- [34] **N. Hatzianastassiou**, N. Mihalopoulos, A. Gkikas, O. Torres, B. Katsoulis, 2009: The role of megacities on aerosol optical thickness in the eastern Mediterranean basin based on TOMS and MODIS satellite data, 7th International Conference on Air Quality - Science and Application (Air Quality 2009) Proceedings, p. 856-859, Istanbul, 24-27 March 2009.
- [35] C. D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, I. Vardavas, 2009: Comparison between MODIS and GADS aerosols asymmetry factor on a planetary scale, European Aerosol Conference (EAC-2009) Proceedings, Abstract T047A11, Karlsruhe, Germany.
- [36] A. Gkikas, N. Mihalopoulos, **N. Hatzianastassiou**, 2010: Characteristics of dust aerosol events in the Mediterranean basin based on a synergistic use of 7-year (2000-2007) satellite data, 10th Greek National and International Conference on

Meteorology Climatology and Atmospheric Physics, Patras, Greece, May 2010, pp. 601-608.

- [37] V. Minias, A. Gkikas, C.D. Papadimas, **N. Hatzianastassiou**, 2010: Aerosol optical properties in North-West Greece during the 8-year period 2000-2008 based on high resolution MODIS-Terra data, 10th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Patras, Greece, May 2010, pp. 1142-1149.
- [38] C.D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, I. Vardavas, 2010: The direct effect of anthropogenic aerosols on solar radiation over the broader Mediterranean region, 10th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Patras, Greece, May 2010, pp. 1134-1141.
- [39] V. Pappas, **N. Hatzianastassiou**, C. Papadimas, C. Matsoukas, S. Kinne, I. Vardavas, 2010: Spatial and temporal variability of the vertical distribution of aerosols and its direct effect on solar radiation for the Mediterranean basin, 10th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Patras, Greece, May 2010, pp. 865-872.
- [40] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, 2010: Variability in aerosol properties, sources and events in the eastern Mediterranean basin based on satellite observations, Proceedings of 10th International Conference on Protection and Restoration of the Environment (PRE10), p. 198-205, Corfu, Greece, September 2010.
- [41] C. Papadimas, A. Gkikas, **N. Hatzianastassiou**, 2010: Desert dust optical properties over the Saharan desert and Arabian peninsula based on deep blue MODIS data during the period 2003-2007, 10th International Aerosol Conference (IAC-2010) Proceedings", P2K48, Helsinki, Finland, August 2010.
- [42] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, 2010: Direct radiative effect of extreme desert dust episodes in the Mediterranean basin, 10th International Aerosol Conference (IAC-2010) Proceedings", Abstract 1306, Helsinki, Finland, August 2010.
- [43] A. Gkikas, **N. Hatzianastassiou**, M. Korras Caracca, 2010: Comparison of MODIS Deep Blue aerosol single scattering albedo and asymmetry parameter with AERONET for northern Africa, Middle East and Europe, European Aerosol Conference 2011 (EAC-2011) Proceedings, Abstract 8P284-969, Manchester, UK, September 2011.
- [44] M. Koras-Carracca, A. Gkikas, C. D. Papadimas, and **N. Hatzianastassiou**, 2012: Aerosol size over the broader Greek area based on satellite and ground measurements, 11th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2012, in press.
- [45] G. Athanassiou, C. D. Papadimas, and **N. Hatzianastassiou**, 2012: High resolution aerosol optical depth in the broader Greek area using MODIS satellite

data, 11th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2012, in press.

- [46] A. Pyrina, C. D. Papadimas, A. Fotiadi, C. Matsoukas, **N. Hatzianastassiou**, and I. Vardavas, 2012: Cloud radiative effect on solar radiation over the eastern Mediterranean basin from 1984 to 2007, 11th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2012, in press.
- [47] A. Gkikas, E. Mastrapostoli, F. Stamatokou, V. Katsoulis, and **N. Hatzianastassiou**, 2012: Extreme spatial and temporal variability of surface air temperature over Europe during 1950-2010, 11th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2012, in press.
- [48] B. Stathopoulos, A. Fotiadi, I. Housos, **N. Hatzianastassiou**, and I. Vardavas, 2012: Day to day Variability of Air Temperature over Greece for the period 1957-2002, 11th Greek National and International Conference on Meteorology Climatology and Atmospheric Physics, Athens, Greece, May 2012, in press.
- [49] V. Pappas, A., and **N. Hatzianastassiou**, 2012: Vertical distribution of aerosols over the greater Mediterranean using CALIOP observations, 26th International Laser Radar Conference (ILRC), Porto Heli, Greece, June 2012, in press.

Publications in Conference Proceedings with abstracts

- [1] **N. Hatzianastassiou**, W. Wobrock, and A.I. Flossmann, 1995: Processing of aerosol particles by convective clouds. XXth General Assembly of the European Geophysical Society, Hamburg, Germany, 3-7 April 1995
- [2] **N. Hatzianastassiou**, W. Wobrock, and A.I. Flossmann, 1996: Microphysical and radiative effects of the processing of aerosol particles by convective clouds. XXIst General Assembly of the European Geophysical Society, The Hague, Netherlands, 6-10 May 1996
- [3] **N. Hatzianastassiou**, W. Wobrock, and A.I. Flossmann, 1996: L'effet indirect des aerosols sur le rayonnement solaire et l'utilite d'un calcul detaille des proprietes optiques d'un nuage pour leur utilisation par les modeles climatiques (The indirect effect of aerosol particles on solar radiation and usefulness of a detailed calculation of cloud optical properties for use in climate models). 9eme Colloque International de Climatologie, Strasbourg, France, 11-14 September 1996
- [4] **N. Hatzianastassiou**, W. Wobrock, and A.I. Flossmann, 1998: Study of the indirect effect of aerosol particles during repeated cloud cycles. XXIIIrd General Assembly of the European Geophysical Society, Nice, France, 20-24 April 1998
- [5] **N. Hatzianastassiou**, W. Wobrock, and A.I. Flossmann, 1998: Impact de la redistribution des particules d'aerosols par un nuage convectif sur leur effet direct (Impact of cloud processing of aerosol particles on their direct effect). 11eme Colloque International de Climatologie, Lille, France, 2-5 September 1998
- [6] **N. Hatzianastassiou** and I. Vardavas, 2000: Surface and top-of-atmosphere radiation budget over Europe using ISCCP satellite data, XXIVth General Assembly of the European Geophysical Society, Nice, France, April 2000
- [7] **N. Hatzianastassiou**, 2000: Proprietes nuageuses durant la decennie 1983-1993 a partir de donnees satellitaires ISCCP. 13eme Colloque International de Climatologie, Nice, France, 6-8 September 2000
- [8] **N. Hatzianastassiou**, 2001: The global radiation budget from ISSCP D2 and NCEP/NCAR 2.5X2.5 degree climatological data. IAMAS (International Association of Meteorology and Atmospheric Sciences) 2001 Assembly, Innsbruck, Austria, 10-18 July 2001, pp. 48.
- [9] **N. Hatzianastassiou**, and I. Vardavas, 2004: Modelling the aerosol direct effect on solar radiation based on global data sets. European Geosciences Union General Assembly 2004, Nice, France, 25 - 30 April 2004
- [10] **N. Hatzianastassiou**, and I. Vardavas, 2004: A 17-year global distribution of Earth's shortwave radiation budget. European Geosciences Union General Assembly 2004, Nice, France, 25 - 30 April 2004

- [11] **N. Hatzianastassiou**, 2004: A climatologie de la distribution globale de la couverture nuageuse a partir des satellites. 15eme Colloque International de Climatologie, Caen, France, 8-11 September 2004
- [12] **N. Hatzianastassiou**, and I. Vardavas, 2004: Global distribution of clear-sky aerosol direct radiative forcing in the ultraviolet and visible using a long-term aerosol optical depth from TOMS. European Geosciences Union General Assembly 2005, Vienna, Austria, 24 - 29 April 2005
- [13] G. Hailomatis, **N. Hatzianastassiou**, and I. Vardavas, 2004: Modelling the effect of clouds on the shortwave radiation budget at global scale for the 17-year period 1984-2000. European Geosciences Union General Assembly 2005, Vienna, Austria, 24 - 29 April 2005
- [14] C. Matsoukas, A. Banks, **N. Hatzianastassiou**, and I. Vardavas, 2004: The seasonal energy budgets of the Mediterranean and Red Seas. European Geosciences Union General Assembly 2005, Vienna, Austria, 24 - 29 April 2005
- [15] I. Vardavas, H. Billing, H. J. Bolle, S. Cox, E. Drakakis, H. Gilgen, S. Gupta, **N. Hatzianastassiou**, D. Hatzidimitriou, R. Hollmann, D. Koslowsky, M. A. Lange, L. Lesch, C. Matsoukas, C. Mikowitz, A. Ohmura, K. G. Pavlakis, A. Roesch, D. Rosenfeld, P. Stackhouse, F. W. Taylor, M. Wild 2004: The Earths radiation budget on a daily 1x1 degree resolution from the ESRB project. European Geosciences Union General Assembly 2005, Vienna, Austria, 24 - 29 April 2005
- [16] **N. Hatzianastassiou**, K. Mironakis, B. D. Katsoulis, 2005: Aerosol properties, transport and episodes over the Mediterranean basin. European Meteorological Society, 5th Annual Meeting of European Meteorological Society and 7th European Conference on Applications of Meteorology, Utrecht, Netherlands, 12 - 16 September 2005
- [17] **N. Hatzianastassiou**, 2005: A global cloud cover climatology from 17-year ISCCP-D2 data. European Meteorological Society, 5th Annual Meeting of European Meteorological Society and 7th European Conference on Applications of Meteorology, Utrecht, Netherlands, 12 - 16 September 2005
- [18] C. Matsoukas, K. G. Pavlakis, **N. Hatzianastassiou**, E. Drakakis, A. Fotiadi, D. Hatzidimitriou, P. W. Stackhouse Jr., I. Vardavas, 2006: Global distribution of 10-year daily mean shortwave and longwave radiation at one degree spatial resolution. European Geosciences Union General Assembly 2006, Vienna, Austria, 02 - 07 April 2006
- [19] A. Fotiadi, E. Drakakis, **N. Hatzianastassiou**, C. Matsoukas, I. Vardavas, 2006: Aerosol properties in the eastern Mediterranean based on the AERONET station at FORTH/Crete. European Geosciences Union General Assembly 2006, Vienna, Austria, 02 - 07 April 2006
- [20] **N. Hatzianastassiou**, V. Antakis, E. Drakakis, B. D. Katsoulis, 2006: The precipitation regime across the Mediterranean basin based on satellite data.

European Geosciences Union General Assembly 2006, Vienna, Austria, 02 - 07 April 2006

- [21] **N. Hatzianastassiou**, C. Matsoukas, A. Fotiadi, I. Vardavas, 2006: Modelling the direct effect of aerosols on near-infrared solar radiation on a global scale. European Geosciences Union General Assembly 2006, Vienna, Austria, 02 - 07 April 2006
- [22] **N. Hatzianastassiou**, C. Matsoukas, I. Vardavas, 2007: 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), European Geosciences Union General Assembly 2007, Vienna, Austria, 15 - 20 April 2007
- [23] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, I. Vardavas, 2007: Changes in aerosol optical properties over the Mediterranean basin based on 6-year (2000-2006) MODIS data, European Geosciences Union General Assembly 2007, Vienna, Austria, 15 - 20 April 2007
- [24] C. Matsoukas, **N. Hatzianastassiou**, I. Vardavas, 2007: Multiyear global analysis of the aerosol direct radiative effect from satellite TOMS data, European Geosciences Union General Assembly 2007, Vienna, Austria, 15 - 20 April 2007
- [25] **N. Hatzianastassiou**, I. Vardavas, 2007: Aerosol radiative effect on thermal dynamics, IUGG, XXIV General Assembly, Perugia, Italy, 02-13 July 2007
- [26] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, I. Vardavas, 2007: Spatial and temporal variability of aerosols over the Mediterranean basin based on 6-year MODIS data, IUGG, XXIV General Assembly, Perugia, Italy, 02-13 July 2007
- [27] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, 2008: Aerosol events in the Mediterranean basin during the 7-year period 2000-2007 based on MODIS-Terra data, European Geosciences Union General Assembly 2008, Vienna, Austria, 13 - 18 April 2008
- [28] C. D. Papadimas, **N. Hatzianastassiou**, N. Mihalopoulos, M. Kanakidou, B. Katsoulis, I. Vardavas, 2008: Aerosol direct radiative effect on solar radiation over the Mediterranean basin based on spectral aerosol optical properties from MODIS, European Geosciences Union General Assembly 2008, Vienna, Austria, 13 - 18 April 2008
- [29] **N. Hatzianastassiou**, C. D. Papadimas, C. Lolis, A. Bartzokas, V. Levizzani, J. Pnevmatikos, 2008: Spatial and temporal variation of precipitation over the Mediterranean Basin based on Global Precipitation Climatology Project satellite data, 10th Plinius Conference on Mediterranean storms, EGU Topical Conference Series, Nicosia, Cyprus, 22 - 24 September 2008

- [30] N. Mihalopoulos, **N. Hatzianastassiou**, 2008: Climate relevant properties of aerosols above the Mediterranean, 1st International Conference: From deserts to monsoons, Crete, 01-06 June 2008
- [31] A. Gkikas, **N. Hatzianastassiou**, N. Mihalopoulos, O. Torres, B. Katsoulis, 2009: The role of natural and anthropogenic particles in the eastern Mediterranean basin aerosol levels based on multi-year TOMS and MODIS satellite data, Our warming planet, IAMAS-IAPSO-IACS MOCA-2009 Joint Assembly, Montreal, Canada, July 2009
- [32] **N. Hatzianastassiou**, 2009: The direct effect of aerosols on the radiation budget and climate of the Earth-atmosphere system: its variability in space and time, European Geosciences Union General Assembly 2009, Vienna, Austria, 19 - 24 April 2009
- [33] C. D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, I. Vardavas, 2009: Aerosol direct radiative effect on solar radiation on planetary scale based on 7-year spectral aerosol optical properties from MODIS, European Geosciences Union General Assembly 2009, Vienna, Austria, 19 - 24 April 2009
- [34] **N. Hatzianastassiou**, C. D. Papadimas, C. Matsoukas, K. Pavlakis, A. Fotiadi, M. Wild, I. Vardavas, 2009: Long-term changes of aerosol optical and radiative properties and their role in global dimming and brightening, European Geosciences Union General Assembly 2009, Vienna, Austria, 19 - 24 April 2009
- [35] N. Benas, N. Cleridou, C. Papadimas, A. Fotiadi, K. Pavlakis, C. Matsoukas, **N. Hatzianastassiou**, I. Vardavas, 2009: The solar and terrestrial radiation budget at the Earth's surface, 8th National Conference of Greek Physicists Union, Heraklion, Crete, 26 - 29 March 2009
- [36] **N. Hatzianastassiou**, C.D. Papadimas, C. Matsoukas, and I. Vardavas, 2009: 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, *Proceedings of International workshop on: Atmospheric composition changes: climate-chemistry interactions*, Lecce, Italy, 02 - 04 November 2009
- [37] C.D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, and I. Vardavas, 2010: Anthropogenic aerosols over southern Europe and their direct effect on solar radiation, *Geophysical Research Abstracts*, Vol.12, EGU2010-13308, 7th General Assembly of the European Geosciences Union, Vienna, Austria, 01 - 08 May 2010
- [37] V. Pappas, **N. Hatzianastassiou**, C. Matsoukas, and I. Vardavas, 2010: Vertical distribution of clouds over the eastern Mediterranean basin: its spatial and temporal variability based on CALIPSO data, *Geophysical Research Abstracts*, Vol.12, EGU2010-770, 7th General Assembly of the European Geosciences Union, Vienna, Austria, 01 - 08 May 2010
- [38] A. Gkikas, E. E. Houssos, A. Bartzokas, and **N. Hatzianastassiou**, 2010: Synoptic conditions favouring the occurrence of strong aerosol episodes over the

broader Mediterranean basin, *Geophysical Research Abstracts*”, Vol. 12, Plinius12-102, 12th Plinius Conference on Mediterranean storms, EGU Topical Conference Series, Corfu, Greece, 01 - 04 September 2010

- [39] A. Gkikas, N. Mihalopoulos, and **N. Hatzianastassiou**, 2011: Direct effect of extreme aerosol episodes on atmospheric solar radiation in the broader Mediterranean basin and potential links with atmospheric dynamics, *Geophysical Research Abstracts*”, Vol.13, EGU2011-12581, 8th General Assembly of the European Geosciences Union, Vienna, Austria, 03 - 08 April 2011
- [40] **N. Hatzianastassiou**, C.D. Papadimas, C. Matsoukas, A. Fotiadi, K. Pavlakis, M. Wild and I. Vardavas, 2011: Patterns of surface solar radiation dimming and brightening at the turn of 21st century, *Geophysical Research Abstracts*”, Vol.13, EGU2011-12621, 8th General Assembly of the European Geosciences Union, Vienna, Austria, 03 - 08 April 2011
- [41] C.D. Papadimas, **N. Hatzianastassiou**, C. Matsoukas, and I. Vardavas, 2011: The effect of clouds on shortwave radiation over the Mediterranean basin based on recent satellite data, *Geophysical Research Abstracts*”, Vol.13, EGU2011-13013, 8th General Assembly of the European Geosciences Union, Vienna, Austria, 03 - 08 April 2011
- [42] V. Pappas, **N. Hatzianastassiou**, C.D. Papadimas, and S. Kinne, 2011: Evaluation of global AEROCOM aerosol optical properties against satellite MODIS aerosol products, *Geophysical Research Abstracts*”, Vol.13, EGU2011-12793, 8th General Assembly of the European Geosciences Union, Vienna, Austria, 03 - 08 April 2011
- [43] V. Pappas, and **N. Hatzianastassiou**, 2011: Use of CALIOP aerosol optical depth retrievals for assessment of air quality in the city of Athens, Greece, *European Meteorological Society 2011 annual meeting abstracts*, Vol.8, EMS2011-55, 11th European Meteorological Society 2011 Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM), Berlin, Germany, 12 - 16 September 2011
- [44] A. Gkikas, E. E. Houssos, C. J. Lolis, A. Bartzokas, N. Mihalopoulos, and **N. Hatzianastassiou**, 2011: Atmospheric circulation characteristics favouring the development of desert dust storms in the Mediterranean, Vol. 13, Plinius13-70, 13th Plinius Conference on Mediterranean storms, EGU Topical Conference Series, Savona, Italy, 07 - 09 September 2011
- [45] A. Gkikas, E. E. Houssos, C. J. Lolis, A. Bartzokas, N. Mihalopoulos, and **N. Hatzianastassiou**, 2011: The regime of dust episodes over the Mediterranean basin from contemporary satellites, 6th International Workshop on sand/duststorms and associated dustfall, Athens, Greece, 07 - 09 September 2011
- [46] N. Mihalopoulos, S. Kleanthous, G. Kouvarakis, A. Gkikas, E. Vasilliadou, C. Theodosi, C. Zoubali, and **N. Hatzianastassiou**, 2011: Interannual variability of dust over the Eastern Mediterranean, 6th International Workshop on sand/duststorms and associated dustfall, Athens, Greece, 07 - 09 September 2011

- [47] M. Korras-Carraca, A. Gkikas, C.D. Papadimas, and **N. Hatzianastassiou**, 2011: Saharan and Arabian Peninsula dust optical properties from MODIS Aqua Deep Blue over 2002-2010, 6th International Workshop on sand/duststorms and associated dustfall, Athens, Greece, 07 - 09 September 2011
- [48] V. Pappas, C. Matsoukas, I. Vardavas, and **N. Hatzianastassiou**, 2012: Vertical distributions of aerosols and clouds over the greater Mediterranean basin using CALIOP observations, *Geophysical Research Abstracts*”, Vol.14, EGU2012-6383, European Geosciences Union General Assembly, Vienna, Austria, 22 - 27 April 2012
- [49] **N. Hatzianastassiou** C. Papadimas, C. Matsoukas, K. Pavlakis, A. Fotiadi, M. Wild, and I. Vardavas, 2012: Features and causes of recent surface solar radiation dimming and brightening patterns, *Geophysical Research Abstracts*”, Vol.14, EGU2012-13334, European Geosciences Union General Assembly, Vienna, Austria, 22 - 27 April 2012
- [50] **N. Hatzianastassiou**, P. Ginoux, and V. Ramaswamy, 2012: Retrieving aerosol properties over the Mediterranean basin with a climate model, *European Aerosol Conference 2012 (EAC-2012) Proceedings*, Granada, Spain, September 2012, in press
- [51] A. Gkikas, **N. Hatzianastassiou**, S. Kazadzis, V. Amoiridis, S. Basart, E. Marinou, and J. M. Baldasano, 2012: Optical and radiative properties of intense dust outflows, in the Mediterranean basin, based on a synergistic use of satellite and AERONET measurements, *European Aerosol Conference 2012 (EAC-2012)*, Granada, Spain, September 2012, in press
- [52] **N. Hatzianastassiou**, M. Pyrina, C. Papadimas, C. Matsoukas, A. Fotiadi, and I. Vardavas, 2012: An updated satellite-based climatology of Cloud Effects on global Earth's radiation budget, 16th *International Conference on Clouds and Precipitation (ICCP 2012)*, Leipzig, Germany, July 2012, in press
- [53] **N. Hatzianastassiou**, A. Kyrtzidis, C. Papadimas, C. Matsoukas, M. Wild, and I. Vardavas, 2012: Solar dimming and brightening in the second half of 20th century based on ERA-40 Reanalysis Project, *International Radiation Symposium 2012 (IRS 2012)*, Berlin, Germany, August 2012, in press

Citations

More than 400

Dissertations

- [1] **N. Hatzianastassiou**, 1990: Diurnal variation of the amount of atmospheric water vapor in the region of Thessaloniki during the years 1970-1980, Diploma Thesis, Aristotelian University of Thessaloniki, Department of Meteorology and Climatology, Thessaloniki, 1990
- [2] **N. Hatzianastassiou**, 1990: Wind, wind energy, and wind generators, Aristotelian University of Thessaloniki, Department of Atmospheric Physics, Thessaloniki, 1990
- [3] **N. Hatzianastassiou**, 1992: Simulations numeriques de la couche limite atmospherique nuageuse (MIZEX 1984) (Numerical simulations of the cloud-topped atmospheric boundary layer, MIZEX 1984). D.E.A Sciences de la Terre et de l'Atmosphere, option "Physique du cycle de l'eau atmospherique", Rapport de stage, Laboratoire de Meteorologie Physique, Universite Blaise Pascal, Clermont-Ferrand, France, Juillet 1992 D.E.A Sciences de la Terre et de l'Atmosphere, option "Physique du cycle de l'eau atmospherique"
- [4] **N. Hatzianastassiou**, 1997: Etude de l'effet indirect des particules d'aerosol sur le bilan radiatif lors de cycles nuageux consecutifs (Study of the indirect effect of aerosol particles during repeated cloud cycles). These de Doctorat 3eme Cycle de l'Universite Blaise Pascal, Ecole Doctorale des Sciences Fondamentales, No 143, Universite Blaise Pascal, U.F.R de Recherche Scientifique et Technique, Clermont-Ferrand, France, Septembre 1997

Reports

- [1] I. Vardavas, **N. Hatzianastassiou**, D. Hatzidimitriou, C. Matsoukas, K. G. Pavlakis and E. Drakakis: European Component on GEWEX Surface Radiation Budget, European Commission, technical report, 2005.
- [2] I. Vardavas, **N. Hatzianastassiou**, A. Fotiadi, C. Matsoukas and K. G. Pavlakis: Aerosol forcing on the radiation and hydrological budget of the eastern Mediterranean, Final Report of project 89185, PYTHAGORAS-Environment, 2008, General Secretariat of Research and Technology (G.S.R.T.).
- [3] I. Vardavas, **N. Hatzianastassiou**, A. Fotiadi, C. Matsoukas and K. G. Pavlakis: Aerosol effect on the energy budget and chemical composition of the Mediterranean by using satellite data and 3-D atmospheric chemical transport and energy budget models, Final Report of project 03EΔ373, Support Program of Research stuff, 2009, General Secretariat of Research and Technology (G.S.R.T.).
- [4] I. Vardavas, **N. Hatzianastassiou**, A. Fotiadi, C. Matsoukas, C. Papadimas and K. G. Pavlakis: The Water Resources of Greece under Changing Climatic

Conditions, Final Report, J. S. Latsis Public Benefit Foundation Research Programme 2010.

- [5] **N. Hatzianastassiou**, C. Papadimas and A. Gkikas: Aerosol properties in the broader area of Epirus and northwestern Greece by using contemporary satellite data, Final Report of project 80030, Research projects within the fields of the University of Ioannina, Research Committee of the University of Ioannina, 2010.
- [6] Contribution to Regional Assessment Climate Change in the Mediterranean (RACCM) report, EU CIRCE Integrated Project, 2011.
- [7] Contributions (2) to Global Energy and Water Experiment (GEWEX), Radiation Flux Assessment, World Climate Research Programme (WCRP) Report, WMO-TD No(to be released), 2012.

Books

- [1] B. Katsoulis and **N. Hatzianastassiou**: Atmospheric Physics, Ioannina University Press, Ioannina, Greece, 2005
- [2] I. Vardavas, D. Hatzidimitriou, **N. Hatzianastassiou**, C. Matsoukas, K. G. Pavlakis and E. Drakakis: European Component on GEWEX Surface Radiation Budget, Synthesis and integration report, in press, Crete University Press

Notes

- [1] **N. Hatzianastassiou**: Physical Climatology, Notes for undergraduate students, Ioannina, Greece, 2012
- [2] **N. Hatzianastassiou**: Physical Climatology, Notes for post-graduate students, Ioannina, Greece, 2012
- [3] **N. Hatzianastassiou**: Atmospheric Physics, Notes for undergraduate students, Ioannina, Greece, 2012
- [4] **N. Hatzianastassiou**: Atmospheric Physics, Notes for postgraduate students, Ioannina, Greece, 2012

Lectures and Seminars

- 1. **N. Hatzianastassiou**: Interactions of Aerosols – Clouds – Radiation, given at Universite Blaise Pascal, Clermont-Ferrand, France, October 1996

2. **N. Hatzianastassiou:** On the indirect effect of aerosol particles, given to postgraduate and graduate students of the Laboratory of Meteorology and Atmospheric Physics of the University of Leipzig-Germany, Clermont-Ferrand, France, November 1996
3. **N. Hatzianastassiou:** Computation of the Earth's radiation budget using numerical models and satellite data, Seminar given to the postgraduate students of the Laboratory of Meteorology, given at the Physics Department, University of Ioannina, 31 January 2000
4. **N. Hatzianastassiou:** Modelling the interactions of aerosols, clouds, and radiation, and the Earth's radiation budget, Seminar given to the Physics Department, University of Ioannina, 1 February 2000
5. **N. Hatzianastassiou:** Pollution and atmospheric aerosol particles, Seminar given to the assembly of the Greek human capital network STEPA, University of Ioannina, 6 April 2001
6. **N. Hatzianastassiou:** Modelling the shortwave and longwave radiation budget on global scale, University La Sapienza, Rome, 20 June 2001
7. **N. Hatzianastassiou:** A 17-year global distribution of the Earth's shortwave radiation budget, Universite Blaise Pascal, Clermont-Ferrand, France, 17 September 2005
8. **N. Hatzianastassiou:** Global distribution of the Earth's shortwave radiation budget, University of Ioannina, 16 December 2005
9. **N. Hatzianastassiou:** Optical properties and direct effect of aerosols on the solar radiation budget, 2nd Meeting of the Hellenic Association for Aerosol Research (HAAR), National Centre for Scientific Research "Demokritos", 13 December 2007
10. **N. Hatzianastassiou:** Tropospheric aerosols: how these tiny particles affect the Earth's solar radiation budget and climate?, Physics Department, University of Ioannina, 5 February 2010
11. **N. Hatzianastassiou:** Tendencies of shortwave radiation budget beyond 2000, global dimming and brightening and possible implications for climate, Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, USA, 14 July 2010

Invited Talks

1. **N. Hatzianastassiou:** The shortwave and longwave radiation budgets for the northern and southern hemispheres, University La Sapienza (Rome I), Rome, Italy, 25 June 2001
2. **N. Hatzianastassiou:** Modelling the aerosol direct effect on solar radiation arising under clear skies, University Blaise Pascal, Clermont-Ferrand, France, 29 June 2003
3. **N. Hatzianastassiou:** Modelling the aerosol direct effect on solar radiation based on global data sets, Maximilian University of Munich, Munich, Germany, 28 September 2003
4. **N. Hatzianastassiou:** The direct effect of aerosols on the radiation budget and climate of the Earth-atmosphere system: its variability in space and time, European Geosciences Union General Assembly 2009, Vienna, Austria, 19 - 24 April 2009

Workshop participations

1. 4th International Cloud Modeling Workshop, Group of NARE '93 experiment, Clermont-Ferrand, France, 12-16 August 1996
2. Reduction of errors in assessment of aerosol forcing of the climate using model, satellite, network and in-situ measurements, in "Ocean color, land surfaces, radiation and clouds, aerosols: the contribution of POLDER and new generation spaceborne sensors to global change studies, Meribel, France, 18-22 January, 1999
3. 1st-2nd-3d-4th-5th-6th European Component of GEWEX Surface Radiation Budget Experiment meetings (1st-3d-5th-6th meetings at Heraklion, Crete in 2001, 2002, 2003, 2004, 2nd meeting at the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, 2002, 4th meeting at the Free University of Berlin, Germany, 2003)
4. Workshop on Validation of Radiative Fluxes at TOA and Surface Derived from Satellite Measurements and Climate Modeling, at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland, 6-8 October 2004

Conferences organizing and scientific committees

1. 4th International Cloud Modeling Workshop, Group of NARE '93 experiment, Clermont-Ferrand, France, 12-16 August 1996
2. 6th Hellenic Conference in Meteorology-Climatology-Atmospheric Physics, Ioannina, Greece, 25-28 September 2002
3. Climate Change Impacts on Mediterranean Storms, 12th Plinius Conference on "Mediterranean Storms", Corfu, Greece, 1-4 September 2010
4. Mediterranean Storms. Disasters and Climate Change: know to adapt, 13th Plinius Conference on "Mediterranean Storms", Savona, Italy, 7-9 September 2011

Teaching-Academics

Undergraduate courses

1. Dynamical Meteorology (Dept. of Physics, University of Ioannina) 2000-2001
2. Atmospheric Physics (Dept. of Physics, University of Ioannina) 2000-2005 – *plus Laboratories*
3. Physical Climatology (Dept. of Physics, University of Ioannina) 2003-2005
4. Fluid Mechanics (Dept. of Physics, University of Ioannina) 2002-2003
5. General Climatology (University of Ioannina, Program: Sciences and Culture – Option Environment) 2000-2002

Postgraduate courses

1. General Climatology (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2000-2005
2. Physical Meteorology and Atmospheric Thermodynamics (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2000-2005
3. Radiometeorology (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2001-2003
4. Cloud Physics (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2002-2005
5. Hydrometeorology (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2002-2005
6. Micrometeorology (MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina) 2010

Supervisions

1. 20 undergraduate Diploma theses at the Dept. of Physics, University of Ioannina
2. 14 postgraduate Diploma theses at the MSc Program: Atmospheric Sciences and Environment, Dept. of Physics, University of Ioannina
3. 4 PhDs (Dept. of Physics, University of Ioannina – 3 ongoing)
4. 2 post-doc students

Committees

1. Participation in various MSc and PhD Committees in Greece
2. Participation in PhD Committees in Switzerland (ETH) and Italy (University of Siena)
3. Participation in electoral committees in Greece

Scientific International Collaborations

1. NASA Langley Research Center, USA (Dr. Paul Stackhouse)
2. ETH, Zurich, Switzerland (Professor Atsumu Ohmura and Dr Martin Wild)
3. University of Munich, Germany (Dr Peter Koepke)
4. Universite Blaise Pascal, France (Professors Andrea Flossman and Wolfram Wobrock)
5. Free University of Berlin, Germany (Dr. Dirk Koslowsky and Dr. Heiner Billing)
6. Goddard Institute for Space Studies, GISS, USA (Dr William Rossow)
7. University of Maryland, USA, (Professor Rachel Pinker)
8. University of Hampton, USA, (Prof. Omar Torres)
9. University of Tokyo (Dr Toshihiko Takemura)
10. Harvard University, Smithsonian Center for Astrophysics (Dr. Willie Soon)
11. Institute of Earth Sciences Jaume Almera (Dr. Xavier Querol)
12. Department of Global Ecology Carnegie Institution of Washington, USA (Prof. Ken Caldeira)
13. Institute of Atmospheric Sciences and Climate, Italian National Research Council (CNR), (Dr Vincenzo Levizzani)
14. Research School of Biological Sciences, Australian National University, (Dr Michael Roderick)
15. Max Planck Institute for Meteorology, Hamburg, Germany (Prof. Stefan Kinne)
16. Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, USA (Dr. V. Ramaswamy and Dr. Paul Ginoux)

Participation in International Commissions

1. International Radiation Commission (IRC), Working Group on Radiation
2. Global Energy and Water Cycle Experiment (GEWEX), Radiative Flux Assessment (RFA)
3. International Precipitation Working Group (IPWG), Coordination Group for Meteorological Satellites (CGMS) and World Meteorological Organization (WMO)

FOREIGN LANGUAGES: I) English (fluently written and spoken), II) French (fluently written and spoken), III) Italian (some written and spoken)

INFORMATICS: Languages: Fortran, Pascal, Basic, html
Environments-Platforms: Ms-Dos, Unix, Vax, Linux, Macintosh, Windows, Xwindows
Computers: Pc's, Workstations, Cray, X-terminals
Graphics: pvwave, IDL, xmgr, mongo, Grad's, xgs, xv, canvas, excel, deltagraph, xfig, Power-Point, DISLIN, surfer, Paint, Acrobat, Matlab, Origin, ...
Editors: latex, word 5-6-..., notepad, wordpad, emacs, vi, ...

MILITARY SERVICE: Completed (1992-1994)

MEMBERSHIPS:

1. AGU (American Geophysical Union)
2. EGU (European Geosciences Union)
3. AMS (American Meteorological Society)
4. RMS (Royal Meteorological Society)
5. AIC (Association Internationale de Climatologie)
6. European Meteorological Society (EMS)
7. International Association of Meteorology and Atmospheric Science (IAMAS)
8. European Aerosol Assembly (EAA)
9. Hellenic Meteorological Society (HMS)
10. Hellenic Physical Society (HPS)
11. American Institute Of Physics (AIP)
12. Hellenic Association for Aerosol Research (HAAR)

AWARDS-DISTINCTIONS:

1. Ministere Francaise de l'Education Superieure et de la Recherche, Scholarship (1994-1997)
2. Society for Civilisation of Serres, Award of best student, 1986
3. Travel Support Award, International Radiation Commision (IRC), World Meteorological Organization, 2000
4. International Commision on Clouds and Precipitation (ICCP), IAMAS, World Meteorological Organization, Travel Support Award, 2000

5. Deutscher Akademischer Austausch Dienst, Invitation, 2003
6. International Commission on Clouds and Precipitation (ICCP), IAMAS, World Meteorological Organization, Travel Support Award, 2004
7. Associate Fellow of the Royal Meteorological Society (RMS), February 2004
8. Invitation from the Radiation Panel Assessment Panel, Global Energy and Water Cycle Experiment (GEWEX), World Climate Research Programme (WCRP)
9. Fulbright Award, 2009-2010
10. European Geosciences Union (EGU) complimentary membership for 2012 for the EGU related activities performed

REFeree OF INTERNATIONAL PEER REFereED JOURNALS:

1. Journal of Geophysical Research
2. Journal of Climate
3. Atmospheric Chemistry and Physics
4. Atmospheric Environment
5. Journal of Applied Meteorology
6. Quarterly Journal of the Royal Meteorological Society
7. Atmospheric Chemistry and Physics
8. Tellus
9. Geophysical Research Letters
11. Remote Sensing of Environment
12. Atmospheric Research
13. Journal of Environmental Management
14. Annales Geophysicae
15. Environmental Monitoring and Assessment
16. Journal of Weather Modification
17. Journal of Atmospheric and Solar Terrestrial Physics
18. Natural Hazards and Earth System Sciences
19. Climate Dynamics
20. Advances in Meteorology
21. Atmospheric Pollution Research

REFeree OF SCIENTIFIC PROPOSALS:

Evaluator of scientific proposals in Greece, as well as in Science Foundations of Germany, Switzerland and Israel.