

## BRIEF CURRICULUM VITAE

**First Name:** HELENA, **Surname:** FLOCAS

**Title:** Associate Professor, University of Athens

**Family status:** Married with two children.

### Studies

**First Degree:** BSc, University of Thessaloniki, Department of Physics, Greece, 1987

**Post Graduate Titles:** MSc in Meteorology, University of Reading, UK, 1990

PhD in Meteorology, University of Thessaloniki, Greece, 1993

**Languages:** English, French, Italian

### Fields of Scientific activities:

- Dynamic Climatology
- Applied Climatology- Climatic changes
- Synoptic and Dynamic Meteorology
- Biometeorology
- Atmospheric Boundary Layer
- Atmospheric air quality and transfer of air pollutants

### Employment:

**1990-1993:** Research assistant, Department of Meteorology-Climatology, University of Thessaloniki

**1993-1994:** Research assistant in the Department of Meteorology, University of Reading, UK

**1995-2000:** Research assistant, Faculty of Physics, University of Athens

**1996-2000:** Scientific collaborator of the Ministry of Environment for issues related to European Environmental Agency

**2000-2004:** Lecturer, Faculty of Physics, University of Athens

**2004- 2012:** Assistant Professor, Faculty of Physics, University of Athens

**2012-:** Associate Professor

### Teaching experience:

- Two compulsory courses to undergraduate students: 1) Dynamic and Synoptic Meteorology (since 2002), 2). Probability-Statistics-Errors (since 2003).
- Two courses to postgraduate students: Atmospheric Dynamics (MSc in Environmental Physics) and Statistics (MSc in Oceanography)
- Two undergraduate laboratory courses (Atmospheric Physics, Optics)
- Statistics (in english) within the context of the (IAEA Post Graduate Educational Course Radiation Protection and Safe Use of Radiation Sources, that is performed in 2003, 2005, 2007, 2009)

### Supervision of Dissertations:

Supervision of undergraduate completed Dissertations (since 2000): 56

Supervision of postgraduate completed Dissertations (since 2000): 34

Supervision of PhD Dissertations, as main supervisor (since 2004): 5 (3 completed)

Supervision of PhD Dissertations, as member of supervising committee (since 2000): 11 (7 completed)

Supervision of funded postdoctoral research

1. Dr. M. Hatzaki, funded by the National Institution of Scholarship, in University of Athens (2010-2011)
2. Dr. D. Brayshaw, funded by NERC, UK in University of Reading (2011-2012)

## Published work:

Number of publications in refereed <i>international</i> scientific journals:	<b>86</b>
Number of publications in peer reviewed <i>international</i> conference proceedings:	<b>115</b>
Number of publications in peer reviewed <i>national</i> conference proceedings:	<b>27</b>
Books:	<b>6</b>
Other publications (books, non-referred proceedings):	<b>3</b>
Number of Technical Reports:	<b>31</b>
Educational notes:	<b>4</b>

- **Citations to published work (excluding auto-citations):** about 1300 (source: ISI, Scopus, Google Scholar)  
**H-index:** 17
- **Special reference** to the paper by Flocas al (2003) published in J. Appl. Meteorol. in the special column "Papers of Note" of Bulletin of American Meteorological Society (Issue 85(1), 2004, pages 34-35) entitled «Chemical distributions over Athens».
- **Reviewer in 33 international scientific journals**
- **Reviewer** of the **IPCC special report** "Managing the risks of extreme events and disasters to advance Climate Change adaptation", 2011
- **Invited speaker in 9 workshops/conferences**, related to the topic of Climate and climate changes
- **Guest editor:** 2 issues of GNEST and 1 issue of Atmospheric Research
- **Member of the Editorial Board** of the journal *International Journal of Atmospheric Sciences and Global Nest*

## Research experience

- Coordinator of 4 research projects, funded by EU and private and/or national funds.
- Participation in 56 research projects, as research assistant (including 14 European projects).
- Supervision of a research group (Meteorology and Climatology group) consisting of three postdoc collaborators, a PhD students and four postgraduate students  
([http://env.mg.uoa.gr/index.php?option=com\\_content&view=article&id=57&Itemid=72&lang=en](http://env.mg.uoa.gr/index.php?option=com_content&view=article&id=57&Itemid=72&lang=en)).

## Participation in Scientific Committees

- Scientific Committee of the International Conference on Environmental Science and Technology since 2011
- Scientific Committee of the International Student Conference of Balkan Physical Union (ISCBPU-7). Bodrum, 4-7 September 2009.
- Scientific Committee of the English-Greek Dictionary of Meteorological and Climatological Terms, published by the Hellenic Meteorological Society
- Scientific Committee of the bulletin issued by the Ministry of Environment every 3 months related to the European Environmental Agency
- Organising Committee of the 11<sup>th</sup> International Conference on Meteorology, Clumatology and Atmospheric Physics, Athens, May 2012

## Distinctions

- Scholarship from the National Institution of Scholarships during my undergraduate studies (1983-1987).
- Scholarship from NATO, through the Greek Ministry of Economics, during my postgraduate studies in UK (1989-1990)
- Scholarship from British Council for postdoctoral research at the University of Reading (1994-1995)
- Fellowship from the National Foundation of Scholarship for postdoctoral research at the University of Athens (1998-1999)
- British Council: Fellowship for postdoctoral research in Reading University, UK (1993-1994).

- NASA: Grant for attending the 5<sup>th</sup> International Conference International Conference on precipitation: Space-Time variability and dynamics of rainfall. (1995)

### Membership

- 1) Royal Meteorological Society: Appointed as Associate Fellow since 1993
- 2) American Meteorological Society: Appointed as Member since 2000
- 3) Hellenic Meteorological Society: Appointed as Member since 1990

### PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Karacostas T.S, O.K.Kakaliagou and **H.A.Flocas**, 1991: An objective evaluation of two instability indices associated with forecasting convective storms over North Central Greece. *Geofizika*, 8, 51-59.
2. **Flocas, H. A.**, T. S. Karacostas, B. D. Giles and A. A. Flocas, 1995: Considerations on the dynamics of a cold spell over Greece. *Meteorologische Zeitschrift*, 4, 222-228.
3. **Flocas, H. A.** and T. S. Karacostas, 1996: Cyclogenesis over the Aegean Sea: Identification and Synoptic Categories. *Meteorological Applications*, 3, 53-62.
4. Prezerakos, N.G. and **H.A. Flocas**, 1996: The formation of a dynamical unstable ridge at 500 hPa in northwest Europe as a precursor of surface cyclogenesis in central Mediterranean. *Meteorological Applications*, 3, 101-112.
5. Prezerakos, N.G., **H.A. Flocas** and S. C. Michaelides, 1997: Absolute vorticity advection and potential vorticity of the free troposphere as synthetic tool for the diagnosis and forecasting of cyclogenesis. *Atmosphere-Ocean*, 35, 65-91.
6. Sioutas M. V. and **H. A. Flocas**, 1997: Influence of the environmental winds on propagation and motion of thunderstorms in northern Greece. *Journal of Geophysical Research*, 101, D21, 26.255-26.265.
7. Thorncroft, C. D. and **H. A. Flocas**, 1997: A case study of Saharan cyclogenesis. *Monthly Weather Review*, 125, 1147-1165.
8. Kassomenos, P., **H. A. Flocas**, S. Lykoudis and M. Petrakis, 1997: A study of frost events in areas characterised by the absence of observations. *Meteorology and Atmospheric Physics*, 62, 249-256.
9. Prezerakos, N. G. and **H. A. Flocas**, 1997: The role of an upper developing diffluent trough in central Mediterranean surface cyclogenesis. *Meteorologische Zeitschrift*, 6, 108-119.
10. Kassomenos, P., **H. A. Flocas**, Skouloudis, A. N., Lykoudis, S., Asimakopoulos, V. D. and Petrakis, M., 1998a: Relationship of air quality indicators and synoptic scale circulation at 850 hPa over Athens during 1983-1995. *Environmental Technology*, 19, 13-24.
11. Kassomenos, P., **H. A. Flocas**, S. Lykoudis and M. Petrakis, 1998b: Analysis of mesoscale patterns in relation to synoptic conditions over an urban Mediterranean basin. *Theoretical and Applied Climatology*, 59, 215-229.
12. **Flocas, H.A.**, Helmis, C.G, Blikas, S.N., Asimakopoulos, D.N, Barzis, J.G., Deligiorgi, D.G., 1998: Mean characteristics of the katabatic flow of a 1024 m high knife edge mountain. *Theoretical and Applied Climatology*, 59, 237-249.
13. Kassomenos, P., **H. A. Flocas**, Lykoudis, S. , and Skouloudis, A. N., 1998c: Spatial and temporal characteristics of the relationship between air quality status and mesoscale circulation over an urban Mediterranean basin. *The Science of the Total Environment*, 217, 37-57.

14. Kassomenos, P., Skouloudis, A.N., Lykoudis, S., and **Flocas, H.A.**, 1999: Air Quality Indicators for uniform indexing of atmospheric pollution in large metropolitan areas. *Atmospheric Environment*, 33/12, 1861-1879.
15. Michaelides, S.C, Prezerakos, N. G., and **H. A. Flocas**, 1999: Quasi-Lagrangian energetics of an intense Mediterranean cyclone. *Q. J. Roy. Met. Soc.*, 125, 139-168.
16. Prezerakos, N. G., **Flocas, H. A.** and Michaelides, S. C., 1999: Upper tropospheric downstream development over northwest Europe leading to surface cyclogenesis in the central Mediterranean. *Meteorological Applications*, 4, 313-322.
17. **Flocas, H. A.**, 2000: Diagnostics of cyclogenesis over the Aegean sea using potential vorticity. *Meteorology and Atmospheric Physics*, 73, 25-33.
18. Helmis, C. G, **Flocas H. A.**, Kalogiros, J. and Assimakopoulos, D. N, 2000: Strong downslope winds and application of hydraulic-like theory. *J. of Geophysical Research*, 105(D14), 18039-18051.
19. Maheras, P., **Flocas, H.A.**, Patrikas, I. And Anagnostopoulou C., 2001: A 40 year objective climatology of surface cyclones in the Mediterranean region: spatial and temporal distribution. *Int. J. of Climatology*, 21, 109-130.
20. Kassomenos, P., Gryparis, A., Samoli, E., Katsouyianni, K., Lycoudis, S. and **Flocas, H.A.**, 2001: Atmospheric circulation types and daily mortality in Athens, Greece. *Environmental Health Perspectives*, 109, 591-596.
21. **Flocas, H.A.**, Maheras, P., Karacostas, T.S., Patrikas, I and Anagnostopoulou, C., 2001: A 40 year climatological study of relative vorticity distribution over Mediterranean. *Int. J. Climatology*, 21, 1759-1778.
22. Maheras, P. **Flocas, H.A.**, Anagnostopoulou, C., Patrikas, I., 2002: On the vertical structure of surface cyclones in the Mediterranean region. *Theoretical and Applied Climatology*, 71, 199-217.
23. Prezerakos N. G. and **Flocas, H.A.**, 2002: Regional and global large scale dynamics leading to a prolonged drought event in Greece. *Journal of Atmospheric and Terrestrial Physics*, 64, 1841-1854.
24. Michalakakou, G., **Flocas, H.A.**, Santamouris, M. and Helmis, C. G., 2002: The impact of synoptic scale atmospheric circulation on the urban heat island over Athens, Greece. *Journal of Applied Meteorology*, 41, 519-527.
25. Helmis, C.G., Jacovides, C., Assimakopoulos, D.N. and **Flocas, H.A.**, 2002: Experimental study of the vertical structure of the lower troposphere over a small Greek island in the Aegean sea. *Journal of Atmospheric and Oceanic Technology*, 19, 1181-1192.
26. Helmis, C.G., Moussiopoulos, N., **Flocas, H.A.**, Sahm, P., Assimakopoulos, V., Naneris, C., Maheras, P., 2003: Estimation of transboundary air pollution on the basis of synoptic scale weather types. *International Journal of Climatology*, 23, 405-416.
27. Sioutas, M. and **Flocas, H.A.**, 2003: Hailstorms in Northern Greece: synoptic patterns and thermodynamic environment. *Theoretical and Applied Climatology*, 75, 189-202.
28. **Flocas, H.A.**, Assimakopoulos, V.D., Helmis, C.G., and Gusten, H., 2003: VOCs and O3 distribution over a densely populated area. *Journal of Applied Meteorology*, 42, 1799-1810.
29. Moussiopoulos, N., Helmis, C.G., **Flocas, H.A.**, Louka, P., Assimakopoulos, V., Naneris, C., Sahm, P., 2004: A modeling method for estimating transboundary air pollution in south-eastern Europe, *Environmental Modelling and Software*, 19, 549-558.
30. Anagnostopoulou, Ch., **Flocas, H.A.**, Maheras, P. and Patrikas, I, 2004: Relationship between atmospheric circulation over western-central Europe and eastern Mediterranean. *International Journal of Climatology*, 24, 1745-1758.

31. Maheras, P., Tolika, K., Anagnostopoulou C., Vafiadis M., Patrikas, I and **Flocas H.A.**, 2004: On the relationships between circulation types and changes in rainfall variability in Greece. *International Journal of Climatology*, 24, 1695-1712.
32. **Flocas, H.A.**, Tolika, K., Anagnostopoulou C., Patrikas I., Maheras, P. and Vafiadis M., 2005: Evaluation of maximum and minimum temperature NCEP-NCAR reanalysis data over the Greek area. *Theoretical and Applied Climatology*, 80, 49-65.
33. Halios, C., Assimakopoulos, V.D., Helmis, C.G. and **Flocas, H.A.**, 2005: Investigating Cigarette-Smoke Indoor Pollution in a Controlled Environment. *Science of the Total Environment*, 337, 183-190.
34. Protonotariou, A., E. Bossioli , E. Athanasopoulou, A. Dandou, M. Tombrou, , **H.A. Flocas**, V. D. Assimakopoulos and C. G. Helmis, 2005: Evaluation of the Calpuff regulatory model performance. An application over the Greater Athens Area (GAA), Greece. *International Journal of Environment and Pollution* , 24(1-4), 22-35.
35. Prezerakos, N.G., **Flocas, H.A.** and Brikas, D. 2006: The role of the interaction between polar and subtropical jet in a case of a depression rejuvenation over the Eastern Mediterranean. *Meteorology and Atmospheric Physics*, 92, 139-151.
36. Tolika, K., Maheras, P., **Flocas, H.A.** and Arseni-Papadimitriou, A., 2006: An evaluation of a General Circulation Model (GCM) and the NCEP-NCAR reanalysis data for the winter precipitation in Greece. *International Journal of Climatology*, 26, 935-955.
37. Maheras, P., **Flocas, H.A.**, Tolika, K., Anagnostopoulou, C. and Vafiadis, M., 2006: Circulation types and temperature extreme changes in Greece. *Climate Research*, 30, 161-174.
38. Athanassiadou M., **Flocas H.A.**, Harrison M. , Hort M.C., Witham C. S. and Watkin, S., 2006: The dust event of 17 April 2005 over Athens, Greece, 2005: *Weather*, 61, 125-131.
39. Anagnostopoulou, C., Tolika, K., **Flocas, HA**, Maheras, P., 2006 : Cyclones in the Mediterranean region : present and future climate scenarios derived from a General Circulation model (HadAM3P). *Advances in Geosciences*, 7, 9-14.
40. **Flocas H.A.**, Assimakopoulos, V.D. and Helmis, C.G., 2006: An experimental study of aerosol distribution over a Mediterranean urban area. *Science of the Total Environment*, 367, 872-887.
41. Petrakakis, M., Kelessis, A., **Flocas, HA.**, Zoumakis, N., Helmis, CG., Tsougas, M., 2006: Meteorological conditions during air pollution episodes in Thessaloniki, Greece. *Fresenius Environmental Bulletin*, 15, 916-922.
42. Hatzaki, M., **Flocas H.**, Assimakopoulos D., Giannakopoulos, C., Maheras P., 2006: Study of future climatic variations of a teleconnection pattern affecting Eastern Mediterranean. *GNEST*, 8(3), 195-203.
43. Hatzaki, M., **Flocas, H.A.**, Assimakopoulos, D.N. and Maheras, P., 2007: The Eastern Mediterranean teleconnection pattern: Identification and definition. *Int. J. of Climatol.*, 27, 727-737.
44. Tolika, K., Maheras, P., Vafiadis, M., **Flocas, H.A.**, Arseni-Papadimitriou, A., 2007: Simulation of seasonal precipitation and raindays over Greece: A statistical downscaling based on Artificial neural networks. *Int. J. Clim.* 27, 861-881.
45. Assimakopoulos, M., Michalakakou, G., **Flocas, H.A.**, 2007: Simulating the thermal behaviour of a building during the summer period in an urban environment. *Renewable Energy*, 32, 1805-1816.
46. Tombrou M., Dandou A., Angelopoulos G., Helmis C., Akylas E., **Flocas H.**, Assimakopoulos V., and Soulakellis N., 2007: Model evaluation of the atmospheric boundary layer and mixed layer evolution. *Boundary Layer*, DOI 10.1007/S10546-006-9146-5, 124, 61-79.

47. Anagnostopoulou, C., Tolika, K., Maheras, P., Kutiel, H. and **Flocas, H.A.**, 2008: Performance of the general circulation model HadAM3P in simulating circulation types over the Mediterranean region. *Int. J. Climatology*, 28, 185-203.
48. Stathopoulou, O., Assimakopoulos, V.D., **Flocas, H.A.**, Helmis, C.G., 2008: An experimental study of air quality inside large athletic halls. *Building and Environment*, 43, 834-848.
49. Helmis, C.G., Tzoutzas, J. , **Flocas, H.A.** , Halios, C.H., Stathopoulou, O.I, Assimakopoulos V.D., Panis, V., Apostolatou, M., Sgouros, G. and Adam, E., 2007: Indoor air quality in a dentistry clinic. *Science of the Total Environment*, 377, 349-365.
50. Good, P., Giannakopoulos, C., **Flocas, H.**, Tolika, K., Anagnostopoulou, C. and Maheras, P., 2008: Significant changes in the regional climate of the Aegean during 1961-2002. *International Journal of Climatology*, 28, 1735-1749.
51. Helmis, C.G., Assimakopoulos, V.D, **Flocas, H.A.**, Stathopoulou, O., Sgouros, G. and Hatzaki, M., 2008a: Indoor Air Quality Assessment in the Air Traffic Control Tower of the Athens International Airport, Greece., *Environmental Monitoring and Assessment* , 148, 47-60.
52. Pateraki, S., Maggos, T. Michopoulos, J., **Flocas H.A.**, Assimakopoulos, D.N., Vasilakos, C., 2008: "Ions species size distribution in particulate matter associated with VOCs and meteorological conditions over an urban region". *Chemosphere*, DOI 10.1016/j.chemosphere.2008.02.061, PII: S0045-6535(08)00324-X.
53. Helmis, C.G., Tzoutzas, J. , **Flocas, H.A.** , Halios, C., Assimakopoulos, V.D Stathopoulou, O., Panis, V., and Apostolatou, M, 2008b: Emissions of total VOCs and indoor environment assessment in dental clinics in Athens, Greece. *International Dental Journal*, 58(5), pp 269-278
54. Hatzaki, M., Lingis, P., **Flocas, H.A.**, Michaelides, S., Oikonomou, C., 2008: The impact of an upper troposphere teleconnection pattern on precipitation extremes over Cyprus. *Advances in Geosciences*, 16, 131-136.
55. Oikonomou C., **Flocas, H.A.**, Hatzaki, M., Assimakopoulos, D.N., Gianakopoulos, C., 2008a: Future changes in the occurrence of extreme precipitation events in Eastern Mediterranean, *GNEST*, 10, 255-262.
56. **Flocas, H.A.**, Kelesis, A., Helmis, C.G., Petrakakis, M., Zoumakis, N., 2009: Synoptic and local scale atmospheric circulation associated with air pollution episodes in an urban Mediterranean region. *Theoretical and Applied Climatology*, 95, 265-277
57. Hatzaki, M., **Flocas, H.A.**, Giannakopoulos, C., Maheras, P., 2009: Eastern Mediterranean Teleconnection Pattern: Impact on Eastern Mediterranean climate. *Journal of Climate*, 22, 977-992.
58. Katavoutas, G., Theoharatos, G., **Flocas, H.A.**, Assimakopoulos, D.N., 2009: Measuring the effects of heat wave episodes on the human body thermal balance. *International Journal of Biometeorology*, 53, 177-187.
59. Tombrou M., E. Bossioli, A. Protonotariou, **H. Flocas**, C. Giannakopoulos, A. Dandou, 2009: Coupling GEOS-CHEM with a regional air pollution model for Greece. *Atm. Environ.*, 43, 4793-4804.
60. Halios, C., Helmis, C.G., Eleftheriadis, K., **Flocas, H.A.**, Assimakopoulos, V.D., 2009: A comparative study of the main mechanisms controlling indoor air pollution in residential flats. *Water, Air and Soil Pollution*, 204, 333-350.
61. Jacovides, C., Kaltsounidis, N., **Flocas, H.A.**, Assimakopoulos, DN, 2009: Spectral investigation of the diffuse-to-direct solar beam irradiances ratio (UV-VIS) in the urban Athens atmosphere. *Meteorology and Atmospheric Physics*, 104, 199-211
62. Mavrakakis, A., **Flocas, H.**, Mavromatidis E., Kallos, G., Theoharatos, G., Christidis, A., 2010: A case of nighttime high ozone concentration over the Greater Athens area. *Meteorologische Zeitschrift*, 19, 35-45.

63. Oikonomou, C., **Flocas, H.**, Hatzaki, M., Nisantzi, A., Asimakopoulos D.N., 2010: Relationship of extreme dry spells in Eastern Mediterranean with large scale circulation. *Theoretical and Applied Climatol.*, 100, 137-151.
64. Hatzaki, M., **Flocas, H.**, Oikonomou C., Giannakopoulos, C., 2010: Future changes in the relationship between intense precipitation with large scale circulation. *Advances in Geosciences*, 23, 31-36.
65. Pateraki, S., Asimakopoulos, D.N., Maggos, T., **Flocas, H.**, Vasilakos, C., 2010: The role of wind, temperature and relative humidity on PM fractions in a suburban Mediterranean region. *Fresenius Environmental Bulletin*, 19, 2013-2018.
66. **Flocas, H.A.**, I. Simmonds, J. Kouroutzoglou, K. Keay, M. Hatzaki, D. N. Asimakopoulos, V. Bricolas, 2010: On cyclonic tracks over the Eastern Mediterranean. *J. Climate*, 23, 5243-5257 doi: 10.1175/2010JCLI3426.1
67. **Flocas, H.A.**, Hatzaki, M., Tolika, D., Anagnostopoulou, C., Giannakopoulos C., Kostopoulou E., Kolokitha H., Tegoulas, J., 2011: Ability of RCM/GCM couples to represent the relationship of large scale circulation to climate extremes over Mediterranean. *Climate Research*, 46, 197-209, doi: 10.3354/cr00984.
68. Oikonomou, C., **Flocas, H.A.**, Katavoutas, G., Hatzaki, M., D.N. Asimakopoulos, Zerefos, C., 2010b: On the relationship of orography with extreme dry spells in Greece. *Advances in Geosciences*, 25, 161-166. Doi: 10.5194/adgeo-25-161-2010.
69. Kouroutzoglou, J., **Flocas, H.A.**, Keay, K., Hatzaki, M., D. 2011: Climatological aspects of explosive cyclones in the Mediterranean. *Int. J. Climatol.*, 31, 1785-1802, doi: 10.1002/joc.2203
70. Kouroutzoglou, J., **Flocas, H.A.**, Keay, K., Hatzaki, M., D. 2011: Assessing the characteristics of explosive cyclones under different resolution. *Theor. Appl. Climatol* 105, 263-275, DOI 10.1007/s00704-010-0390-8
71. Helmis, C.G., G. Sgouros, **H. Flocas**; K. Schäfer; C. Jahn; M.Hoffmann; Ch. Heyder; R. Kurtenbach; A. Niedojadlo; P. Wiesen; M. O'Connor; E. Anamaterou, 2011: The role of meteorology on the background air quality at the Athens International Airport. *Atmospheric Environment*, 45, 5561-5571.
72. Pateraki, S., D. N. Asimakopoulos, **H. A. Flocas**, Th. Maggos, and Ch.Vasilakos, 2012: The role of meteorology on different sized aerosol fractions (PM10, PM2.5, PM2.5-10): two different approaches. *Science of the Total Environment*, 419, 124-135. DOI: 10.1016/j.scitotenv.2011.12.064
73. Kouroutzoglou J., **Flocas H.A.**, Keay K, Simmonds I., Hatzaki M., 2012: On the vertical structure of explosive Mediterranean cyclones. *Theor. Appl. Climatol.* 110, 155-176, DOI 10.1007/s00704-012-0620-3.
74. Zagouras, A., A Argiriou, **H.A. Flocas**, G. Economou, S. Fotopoulos, 2012: An advanced Method for Classifying Atmospheric Circulation Types based on Prototypes Connectivity Graph. *Atmospheric Research*, 118, 180-192.
75. **Flocas, H.A.**, Kountouris P., Kouroutzoglou J., Hatzaki, M., Keay, K., Simmonds, I., 2012: Vertical characteristics of cyclonic tracks in eastern Mediterranean during the cold period of the year. *Theor. Appl. Climatol.* DOI: 10.1007/s00704-012-0737-4 (on line)
76. Halios, C., C. G. Helmis, **H.A. Flocas**, S. Nyeki, D. N Assimakopoulos, 2012: On the variability of surface environment response to synoptic forcing over complex terrain: A multivariate data analysis approach. *Meteorology and Atmospheric Physics*, 118, 107-115
77. Kouroutzoglou J., **Flocas H.A.**, Keay K, Simmonds I., Hatzaki M., 2012: A climatology of surface Mediterranean explosive cyclones and comparison with their ordinary counterparts. *Regional Environmental Change* (DOI 10.1007/s10113-013-0461-3, online.
78. Zagouras A., Argiriou A.A., Economou G., Fotopoulos S. and **Flocas H.A.**, 'Weather maps classification over Greek domain based on isobaric line patterns: a pattern recognition approach', *Theoretical and Applied Climatology* 114: 691-704.

79. Philipopoulos K, Deligiorgi D., Yiannikopoulou, I. Flocas H A., 2013: A dynamical-statistical downscaling approach for simulating air temperature time series. *Global Nest*, 15, 261-270.
80. Korologou, M., **Flocas H.**, Mihalopoulou H., 2014: Developing an index for heavy convective rainfall over a Mediterranean coastal area. *Natural Hazards Earth Systems Science*, doi:10.5194/nhess-14-2205-2014, 14, 2205-2214.
81. Hatzaki, M., **Flocas H.**, Simmonds I., Kouroutzoglou, J., Keay, K., Rudeva, I., 2014: Seasonal aspects of an objective climatology of anticyclones affecting the Mediterranean. DOI: 10.1175/JCLI-D-14-00186.1, *J. Climate*, 24, 9272-9289.
82. Calafat, F.M., E. Avgoustoglou, G. Jordà, **H. Flocas**, G. Zodiatis, M. N. Tsimplis, J. Kouroutzoglou, 2014: The ability of a barotropic model to simulate sea level extremes of meteorological origin in the Mediterranean Sea, including those caused by explosive cyclones. *Journal of Geophysical Research-Ocean* 10.1002/2014JC010360, 119 (11), 7840-7853.
83. Katavoutas, G., **Flocas H.**, Mazarakis A. 2015: Thermal comfort under non-steady-state conditions: the case after the transition from an indoor to outdoor hot environment. DOI 10.1007/s00484-014-0836-2 *Int. J. Biometeorology*, 59, 205-216.
84. Rizou D., **Flocas H.**, Athanasiadis P., Bartzokas, A., 2015: Relationship between the Indian summer monsoon and the large-scale circulation variability over the Mediterranean *Atm. Research*, 152, 159-169.
85. Kouroutzoglou J., **Flocas H.A.**, Hatzaki M., Keay K, Simmonds I., 2015: On the dynamics of a case of explosive cyclogenesis over Mediterranean. *Meteorology and Atm. Physics* 127, 49-73.
86. Mavrakis, A., Salvati, L. and **Flocas H.**, 2015: Mixing Ratio as indicator of Climate Variations at a Local Scale: Trends in an Industrial Area of the Eastern Mediterranean, *International Journal of Climatology*, accepted.

#### **PUBLICATIONS IN THE PROCEEDINGS OF INTERNATIONAL CONFERENCES**

1. Karacostas T.S, O. K. Kakaliagou and **H. A. Flocas**, 1991: An objective evaluation of two instability indices associated with forecasting convective storms over North Central Greece. *Second Yugoslav Conference in Weather Modification, Vol. 2*, 15-24.
2. **Flocas H.A** and T. S. Karacostas, 1994: Synoptic and Dynamic Characteristics of cyclogenesis over Aegean Sea. *Life Cycles of Extratropical Cyclones* Bergen, International Symposium, Bergen, Norway. Vol. II, 186-191.
3. Kassomenos, P., **H. A. Flocas** and S. Lykoudis, 1996: An analytical approach of a frost event in central Macedonia. European Cooperation in the field of scientific and technical research, *International Symposium on Applied Agrometeorology and Agroclimatology*, COST 77, 79, 711, Volos, 24-26 April 1996, EUR 18328, 589-594.
4. Helmis, C.G., D. N. Asimakopoulos, **H. A. Flocas**, A. A. Papadopoulos, P.G. Papageorgas and J.A. Kalogiros, 1996: Observation of wave-like disturbances in the lee side of a steep mountain using



- acoustic sounders. ISARS' 96, *8th International Symposium on Acoustic Sounder Sensing and Associated Techniques of the Atmosphere and Oceans*, Moscow, Russia, May 1996, Vol II, 7.17-7.24.
5. Prezerakos, N. G., **H. A. Flocas** and S. C. Michaelides, 1996: Lagrangian atmospheric zonal and eddy available potential and kinetic energy covariation of a central Mediterranean depression. 17th International Conference on Carpathian Meteorology, Visegrad, Hungary, October 1996, 83-89.
  6. **Flocas, H. A.**, 1997: A contribution of the potential vorticity inversion to the diagnosis of cyclogenesis over the Aegean Sea. INM/WMO International Symposium on Mediterranean Cyclones, Palma de Mallorca, Spain, 14-17 April 1997, 133-139.
  7. Kassomenos, P., **Flocas, H.A.**, Lykoudis, S. and Petrakis, M., 1997: A contribution to the study of the relationship between the mesoscale circulation and the air pollution over Metropolitan Athens Area. *5ο Συνέδριο Περιβαλλοντικής Επιστήμης και Τεχνολογίας*, Μόλυβος Λέσβου, Greece, 1- 4 Σεπτεμβρίου 1997, 194-201.
  8. Prezerakos, N. G., **H. A. Flocas** and S. C. Michaelides, 1997: Central Mediterranean cyclogenesis as a result of downstream development. 3<sup>rd</sup> European Conference on Applications of Meteorology, 23-26 September 1997, Lindau, Germany, 58-60.
  9. Kassomenos, P., **Flocas, H. A.** Lykoudis, S. and Skouloudis, A., 1998: Considerations on the temporal and spatial variation of the relationship between air pollution and mesoscale air flow patterns over the Athens Metropolitan Area. 6<sup>th</sup> International Highway and Urban Pollution Symposium. 18-21 May 1998, Ispra, Italy (δημοσίευση της περίληψης).
  10. Asimakopoulos D.N., Helmis C.G., **Flocas H.A.**, and J.A. Kalogiros, 1998: Observations of strong slope winds downstream of a steep mountain using sodar data. ISARS '98, 9<sup>th</sup> International Symposium on Acoustic Remote Sensing and Associated Techniques of the Atmosphere and Oceans. Vienna, 6-10 July 1998, 269-272.
  11. Kassomenos, P. **Flocas, H.A** and Lykoudis, S, 1998: Classification of mesoscale circulation over an urban Mediterranean basin. Relationship with air quality status. ECAC '98, European Conference on Applied Climatology, 19-23 October 1998. Nr. 19, ISSN 1016-6254 (δημοσίευση της περίληψης).
  12. Prezerakos, N. G and **Flocas, H. A.**, 1999: Large scale dynamics of an extreme drought event in autumn 1993. 4th European Conference on Applications of Meteorology (ECAM 99). Norrkoping, Sweden, 13-17 September 1999 (δημοσίευση της περίληψης).
  13. Kassomenos, P., Samoli, E., **Flocas, H. A.**, Asimakopoulos, D.N. and Katsouyianni, K., 1999: Synoptic meteorological systems and human health in Athens, Greece. A tool for improving decision making. 11<sup>th</sup> Conference of the International Society for Environmental Epidemiology, Athens, 5-8 September 1999, Volume 10, No. 4, p. 4570, *Epidemiology*, 10(4), 4570.
  14. Maheras, P., Kutiel, H., Patrikas, J., **Flocas, H.A.** and Anagnostopoulou, C., 1999: Analyse de frequences des depressions en Mediterranee orientale. Publications de l' association internationale de climatologie, Association Internationale de Climatologie, Vol. 12, 359-367.
  15. Asimakopoulos D.N., Helmis C.G., Mousiopoulos N., Lykoudis S. and **Flocas H.**, 1999 : "Experimental study of air mass advection over the Greater Thessaloniki area", 6th Conference of Environmental Science and Technology 30 August to 2 September, Samos, Greece, Vol. C, pp42-48.
  16. **Flocas, H.A**, Maheras, P., Patrikas, I and Anagnostopoulou, C., 2000: Climatological aspects of surface cyclones in the Eastern Mediterranean region. International Colloquim on the Mediterranean:

Cultures, Environment and Society. 22-24 May 2000, Haifa, Israel. (τα πρακτικά είναι διαθέσιμα σε CD-ROM).

17. Helmis, C.G., **Flocas, H.A.**, Kalogiros, J. and Asimakopoulos, D.N., 2000: Remote and in situ measurements of local flows generated by a knife edge mountain. 26<sup>th</sup> International Conference on Alpine Meteorology, 11-15 September 2000, Innsbruck, Austria, Heft Nr. 23, Publ. Nr.392, ISSN 1016-6254 (τα πρακτικά είναι διαθέσιμα σε CD-ROM).
18. Helmis, C.G., **Flocas, H.A.**, Kalogiros, J. and Asimakopoulos, D.N., 2000: An experimental study of strong downslope winds in the lee side of a knife-edge mountain. Meteorology at the Millenium, 10-14 July 2000. Cambridge, UK (δημοσίευση μόνο της περίληψης).
19. Sioutas, M. and **Flocas, H.A.**, 2000: Synoptic flow types associated with hail activity in Northern Greece. 4th General Conference of the Balkan Physics Union. 22-27 August 2000, Veliko, Tirnovo, Bulgaria. *Bulgarian Journal of Physics*, 27, No. 3., 74-77.
20. Asimakopoulos, D. N., Helmis, C.G., Kalogiros, J and **Flocas, H.A.**, 2000: Results from the operational use of a new technology sodar-Rass profiling system. 10<sup>TH</sup> International Symposium on Acoustic Remote Sensing, ISARS2000. Auckland, New Zealand, 27 November-1 December 2000.
21. Helmis, C.G., Jacovides, C., Asimakopoulos, D.N. and **Flocas, H.A.**, 2000: Experimental study of the vertical structure of the lower troposphere over a small island in the Aegean sea, Greece. 10<sup>TH</sup> International Symposium on Acoustic Remote Sensing, ISARS2000. Auckland, New Zealand, 27 November-1 December 2000.
22. Assimakopoulos, V.D., **Flocas, H.A.**, Helmis, C.G., Vakakis-Koloutsou, S., Petrakis, M., 2001: Airborne measurements of ozone over the greater Athens area. 7<sup>th</sup> Conference on Environmental Science and Technology. Siros, 3-6 September, Volume A, 61-68.
23. Helmis, C.G., **Flocas, H.A.**, Kalogiros, J., Assimakopoulos, V.D., 2001: Background measurements related to transboundary air pollution over Greece. 7<sup>th</sup> Conference on Environmental Science and Technology. Siros, 3-6 September, Volume A, 325-332..
24. Lazaridis M., Asimakopoulos D.N., Branis M., Colbeck I., Drossinos I., Dye C., Eleftheriadis K., **Flocas H.**, Helmis C.G., Hollander W., Housiadas , Hovorka J., Kalogerakis N., Smolik J. Stordal F., Svendby T. and Zdimal V., 2001: "Characterisation of urban air quality indoor/outdoor particulate matter chemical characteristics and source to inhaled dose relationships (URBAN AEROSOL), European Aerosol Conference 2001, Leipzig, Germany, September 3-7, *Journal of Aerosol Science*, S1075-1076.
25. Sahm, P., **Flocas, H.A.**, Naneris, C., Assimakopoulos, V.D., Moussiopoulos, N., Helmis, C.G., 2001: Estimating transboundary air pollution in south-eastern Europe: a modelling strategy. 25<sup>th</sup> NATO/CCMS International Technical Meeting on Air Pollution modelling and its application, Brussels, Belgium, 15-19 October, 83-90.
26. Moussiopoulos, N., **Flocas, H.A.**, Sahm, P., Naneris, C., Assimakopoulos, V.D., Helmis, C.G., Louka, P., 2002: A modeling method for estimating transboundary air pollution in south-eastern Europe. 11<sup>th</sup> International Symposium in Transport and Air Pollution. Grzer Congress, 19-21 June 2002, Austria, Volume 1, 117-124.
27. G. Mihalakakou, **H.A. Flocas** and M. Santamouris, 2002: The impact of Synoptic-scale Atmospheric circulation on the Urban Heat Island Effect over Athens, Greece. Energy Efficient and Healthy

Buildings in sustainable cities. EPIC 2002 AIVC. The 3<sup>rd</sup> European Conference on Energy Performance and Indoor Climate in Buildings. 23-26 October 2002, Lyon, France, Vol. 2, 301-306.

28. Lazaridis M., Asimakopoulos D.N., Branis M., Colbeck I., Drossinos I., Dye C., Eleftheriadis K., **Flocas H.**, Helmis C.G., Hollander W., Housiadas , Hovorka J., Kalogerakis N., Smolik J., Svendby T. and Zdimal V., 2002: "Characterisation of urban air quality indoor/outdoor particulate matter chemical characteristics" Sixth International Aerosol Conference, Taipei,Taiwan, 8-13 September 2002, 1227-1228.
29. Prezerakos, N.G. and **Flocas, H.A.**, 2003: The role of the interaction between polar and subtropical jet in a case of a depression rejuvenation over the Eastern Mediterranean. Sixth European Conference on Applications of Meteorology. ECAM 2003. Rome, 15-19 September 2003 (δημοσίευση της περίληψης)
30. Halios, C.H., Helmis, C.G., **Flocas, H.A.**, Assimakopoulos, V.D., and Eleftheriadis, K., 2003: A statistical analysis of aerosol precursors and black carbon in indoor and outdoor environments at a typical residential apartment. European Aerosol Conference, EAC 2003, Madrid, Spain, 31 August-5 September 2003 *Journal of Aerosol Science*, Vol I, S385-386.
31. **Flocas, H.A.**, Assimakopoulos, V.D. and Helmis, C.G., 2003: On the aerosol distribution over the Greater Athens area. 8<sup>th</sup> Conference on Environmental Science and Technology. Lemnos, Grece, 8-10 September 2003, Volume A, 224-231.
32. Halios, C.H., Helmis, C.G., Assimakopoulos, V.D., **Flocas, H.A.** and Petrakis, M., 2003: Studying indoor air quality in a typical residential apartment in Athens, Greece. 8<sup>th</sup> Conference on Environmental Science and Technology. Lemnos, Grece, 8-10 September 2003, Volume A, 286-293.
33. Anamaterou, E.P., O' Connor, C.M., Sarkissian, M.N., Raftopoulou, C.I., Leivaditis, E.G., Hatzis, C., Assimakopoulos, V.D. and **H.A. Flocas**, 2004: The Athens International Airport and Air Quality. Air Pollution 2004, Rhodes, Greece, 30 June-2 July 2004.
34. Tombrou, M., Bossioli, E., Protonotariou A., **Flocas, H.A.**, Tsiligiridis, g., Giannakopoulos, C., Dandou, A., Sellas, N., Vassiliou, V., Korizi A. and Tsialas, T., 2004: Model calculations of ozone in the Eastern Mediterranean region. Quadrennial Ozone Symposium, Kos, Greece, 1-8 June 2004, Volume II, 918-919.
35. Protonotariou, A., E. Bossioli , E. Athanasopoulou, A. Dandou, M. Tombrou, V. D. Assimakopoulos, H.A. Flocas and C. G. Helmis, 2004: Validation and inter-comparison of Calpuff regulatory model to Eulerian models and measurements. An application over the Greater Athens Area (GAA), Greece. 9th conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes Garmisch-Partenkirchen, Germany, June 1-4, 2004, Volume 1, 131-135.
36. **Flocas, H.A.**, Assimakopoulos, V.D. and Helmis, C.G., 2004: On the effect of relative humidity on the aerosol size distributions over the Gretaer Athens Area, Greece. European Aerosol Conference, EAC 2004, Budapest, 6-10 September 2004, volume II, S125-126.
37. Assimakopoulos, V.D., Helmis, C.G., Stathopoulou, O., **Flocas, H.A.** and Pavlopoulos, N., 2004: Indoor PM10/PM2.5 measurements at the Hellinikon Airoport Traffic Control Tower-Athens, Greece. European Aerosol Conference, EAC 2004, Budapest, 6-10 September 2004, Volume II, S86-87.

38. Stathopoulou O., Assimakopoulos, V.D., Halios, C.G., Helmis, C.G., **Flocas, H.A.**, 2004: Indoor air quality in athletic halls. European Aerosol Conference, EAC 2004, Budapest, 6-10 September 2004, Volume II, S713-714.
39. Halios, C.H., Helmis, C.G., Assimakopoulos, V.D., Hermansen, O., Elefteriadis, K., **Flocas, H.A.**, 2004: Indoor black carbon and aerosol precursors in three typical residential apartments in Athens, Greece. European Aerosol Conference, EAC 2004, Budapest, 6-10 September 2004, volume II, S745-746.
40. Hatzaki, M., **Flocas H.**, Maheras P., Asimakopoulos D., 2004: On the study of teleconnection patterns affecting the Mediterranean region. 5<sup>th</sup> European Conference on Applied Climatology, 26-30 September 2004, Nice, France (δημοσίευση της περίληψης).
41. Tombrou Maria, Dandou Aggeliki, Angelopoulos George, Helmis Costas, Akylas Evangelos, **Flocas Helena**, Assimakopoulos Vassiliki, and Soulakellis Nikolaos, 2005: The Impact of Various PBL Parameterization Schemes on the Evolution of Mixing Height. 5<sup>th</sup> International Conference on Urban Air Quality, 29-31 March, Valencia Spain.
42. Maheras P. , K Tolika, C Anagnostopoulou, **H.A. Flocas**, M Vafiadis (2005) Evaluation des données du géopotential à 500hPa produite par les modèles de circulation générale (MCG) pour l'Europe et la Méditerranée. XVIII Colloque Internationale de Climatologie, 7-11 septembre, Gênes, 301-304.
43. H Kutiel, K Tolika, C Anagnostopoulou, **H Flocas**, P Maheras (2005) Comparaison des fréquences des types de circulation observées (données de NCEP) et simulées (données de HadAM3P) en Grèce. XVIII Colloque Internationale de Climatologie, 7-11 septembre, Gênes, 345-348.
44. Anagnostopoulou, C., Tolika, K., Maheras, P., **Flocas, HA.**, Vafiadis, M., 2006: Simulation of Extreme Temperature in Greece Using a Circulation Type Approach. European Geosciences Union (EGU), General Assembly 2006, Vienna, Austria, 24-29 April 2006 (δημοσίευση της περίληψης).
45. Hatzaki, M., **Flocas, HA**, Giannakopoulos, C., Maheras, P. and Oikonomou, C., 2005: Investigation of the impact of an upper troposphere teleconnection pattern on Mediterranean climate. European Geosciences Union (EGU), General Assembly 2006, Vienna, Austria, 24-29 April 2006 (δημοσίευση της περίληψης)
46. Stathopoulou, O., V.D. Assimakopoulos, C.G.Helmis and **H.A.Flocas**, 2005: Indoor air quality study of different athletic halls in Greece. 9<sup>th</sup> International on Environmental Science and Technology, Rhodes, Greece, 1-3 September 2005, 889-894.
47. Helmis C.G., **Flocas H.A**, Tzoutzas J., Assimakopoulos V.D., Panis V., Sgouros G. and Apostolatu M., 2006: "Indoor VOCs and CO<sub>2</sub> levels in selected clinics of the Athens Dentistry School", Air Pollution 2006, 14<sup>th</sup> International Conference on Modelling, Monitoring and Management of Air Pollution, The New Forest, UK, 22-24 May, pp 375-384.
48. Hatzaki, M., **Flocas H.**, Asimakopoulos D., Giannakopoulos, C., Maheras P., 2005: Study of future climatic variations of a teleconnection pattern affecting Eastern Mediterranean. 9<sup>th</sup> Conference on Environmental Science and Technology. Rhodes, Greece, 1-3 September 2005, 567-572.
49. Anagnostopoulou, C., Tolika, K., Flocas, HA, Maheras, P., 2005 : Cyclones in the Mediterranean region : present and future climate scenarios derived from a General Circulation model (HadAM3P). "7<sup>th</sup> Plinius Conference on Mediterranean Storms" , Rethimno, October 2005 (δημοσίευση της περίληψης) .

50. Helmis, C.G., **Flocas, H.A.**, Tzoutzas, J., Assimakopoulos V.D, Panis, V., Sgouros, G. and Apostolatu, M.: 2006: Indoor TVOCs and CO<sub>2</sub> levels in selected clinics of the Athens Dentistry School, Greece. Air Pollution 2006, 22-24 May 2006, New Forest, UK.
51. Hatzaki, M, **Flocas, H. A.** and Maheras, P., 2006: Future changes of an upper troposphere teleconnection pattern impact on the Mediterranean climate. Protection and Restorstion of Environment VIII, Chania, 3-7 July 2006, 535-536.
52. Stathopoulou, O., Assimakopoulos, V.D. and **Flocas, H.A.**, 2006: Investigating environmental conditions in the Athens Dentistry School with the aid of computational fluid dynamics. . Protection and Restorstion of Environment VIII, Chania, 3-7 July 2006, 575-576.
53. Kostopoulou, C. Giannakopoulos, **H.A. Flocas**, T. Holt, P. Le Sager, B.Psiloglou and M. Hatzaki, 2006: Evaluation of ERA-40 reanalysis downscaled temperature and precipitation over Greece. European Geosciences Union (EGU), General Assembly 2006, Vienna, Austria, 2-7 April 2006(δημοσίευση της περίληψης) .
54. Hatzaki M., **Flocas H.A.**, Maheras P., Helmis C.G., The role of large scale dynamics on the formation of the Eastern Mediterranean Pattern, 6th Annual Meeting of the European Meteorological Society (EMS) and 6th European Conference on Applied Climatology (ECAC), 04-08 September 2006, Ljubljana, Slovenia(δημοσίευση της περίληψης) .
55. Tombrou, M., Bossioli, E., Protonotariou, A., Giannakopoulos, Chr., **Flocas, H.A.**, Dandou, A., 2007: Nesting GEOS-CHEM with a regional model over Greece. 6th International Conference on Urban Air Quality, Cyprus, 27-29 March 2007.
56. Hatzaki, M., Lingis, P.,**Flocas, H.A.**, Michaelides, S., Oikonomou, C., 2007: The impact of an upper troposphere teleconnection pattern on precipitation extremes over Cyprus. European Geosciences Union (EGU), General Assembly 2007, Vienna, Austria, 15-20 April 2007, Vol. 9, 05026 (δημοσίευση της περίληψης)
57. Oikonomou C., **Flocas, H.A.**, Hatzaki, M., Assimakopoulos, D.N., Gianakopoulos, C., 2007: Future changes in the occurrence of extreme precipitation events in Eastern Mediterranean, 10<sup>th</sup> Conference on Environmental Science and Technology. Cos, Greece, 3-5 September 2007,A1053-1060.
58. Tzoutzas, J., Helmis, C.G., Panis, V., **Flocas, H.A.**, Asimakopoulos, V., 2007: The effect of various dental materials and disinfectants on the Indoor air quality. 42<sup>nd</sup> annual meeting of IADR Continental European and Israeli Divisions. Thessaloniki, 26-29 September 2007.
59. Schafer K., Emeis S., Jahn C., Hoffman H.M., Heyder C., Helmis C., Scouros G., **Flocas H.**, Tombrou M., Asimakopoulos D., Halios C., Kurtenbach R., Neibojablo A., Wiesen P., Anamaterou E.and O'Connor, 2007: "Airport air quality studies in Athens, First results on the measurement campaign", ECATS International workshop on Transport and Airport pollution, Graz, Germany.
60. Hatzaki, M., **H.A. Flocas**, 2007: Low frequency variability and the Eastern Mediterranean Teleconnection Pattern, 10-14 December 2007, AGU 2007 Fall Meeting, San Francisco, USA. Eos Trans. AGU, 88(52).
61. Oikonomou, C.; **Flocas, H.A.** ; Hatzaki, M.; Nisantzi, A.; Asimakopoulos, D.N. The impact of large-scale atmospheric circulation on the occurrence of extreme wet spells over Eastern Mediterranean, European Geosciences Union 2008, 13-18 April 2008, Vienna, Austria Vol.10, A05119.

62. Hatzaki, M., Flocas, H.A., Maheras, P., Asimakopoulos, D.N., 2008: Dynamic study of the Eastern Mediterranean pattern. 9th International Conference on Meteorology, Climatology and Atmospheric Physics, Thessaloniki, 28-31 May 2008, 545-552.
63. Oikonomou, C., Flocas, HA., Nisatzi, A., Asimakopoulos DN, Katavoutas, G., 2008: The impact of known teleconnection patterns of atmospheric circulation on the formation of extreme dry spells over Eastern Mediterranean. 9<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, Thessaloniki, 28-31 May 2008, 457-464.
64. Zagouras, A., Argiriou, A., Aloizos, G., Fotopoulos, S., Economou G. and Flocas HA., 2008: Implementation of an artificial intelligence system for weather maps automatic classification using chain code. 9th International Conference on Meteorology, Climatology and Atmospheric Physics, Thessaloniki, 28-31 May 2008, 569-576
65. Flocas, H.A, Hatzaki, M., Asimakopoulos, D.N., 2008: The impact of low frequency variability on climatic extremes in the Eastern Mediterranean region. Symposium on Climate Extremes during recent millennia and their impact on Mediterranean societies. Athens, 14-16 September 2008 (δημοσίευση της περίληψης) .
66. Flocas, HA, Hatzaki, M., Anagnostopoulou, C., Tolika, K., Tegoulis, J., Maheras, P., 2008: Relationship of large scale circulation with climatic extremes over Greece: intercomparison of three regional models. 7th European Conference on Applied Climatology, Amsterdam, 29 September-3 October 2008 (δημοσίευση της περίληψης) .
67. Oikonomou, C., Flocas, HA, Hatzaki, M., Giannakopoulos, C., 2008: Future changes in the relationship of extreme precipitation events in Eastern Mediterranean with large scale atmospheric circulation. 10th Plinius Conference on Mediterranean Storms. Nicosia, Cyprus, 22-24 September 2008, 10-A-00099. (δημοσίευση περίληψης)
68. Oikonomou C., Flocas, H.A., Hatzaki M., Katavoutas, G., 2008: Investigation of the topography impact on precipitation extremes in Greece. 7th European Conference on Applied Climatology, Amsterdam, 29 September-3 October 2008 (δημοσίευση της περίληψης) .
69. Katavoutas, G., Theoharatos, G., Flocas, HA., Asimakopoulos, D.N., 2008: On the human body's thermophysiological parameters adaption determined via theoretical and experimental considerations during a heat wave event in Athens. 7th European Conference on Applied Climatology, Amsterdam, 29 September-3 October 2008 . (δημοσίευση της περίληψης)
70. **Flocas, H.A.**, Hatzaki, M., Anagnostopoulou, C., Tolika, K., Tegoulis J., Giannakopoulos C., Kostopoulou E., 2009: Association of large scale circulation with climatic extremes over the Mediterranean: validation of three regional models European Geosciences Union 2009, 19-24 April 2008, Vienna, Austria, Vol. 11, EGU2009-8715 (δημοσίευση της περίληψης)
71. Oikonomou C., **Flocas H.**, Manola I., Hatzaki M., Asimakopoulos D.N.2009: Investigation of orography impact on extreme dry spells over Greece. European Geosciences Union 2009, 19-24 April 2008, Vienna, Austria (δημοσίευση της περίληψης)
72. Oikonomou, C., **Flocas, H.**, Hatzaki, M., Giannakopoulos C., 2008:Future changes in the relationship of precipitation extremes in Eastern Mediterranean with large scale circulation. 10<sup>th</sup> Plinius Conference on Mediterranean Storms, Cyprus,22-24 September 2008.

73. Zagouras A., Argiriou A., Aloizos G., Fotopoulos S., Economou G. and Flocas H., 'Implementation of an artificial intelligence system for weather maps automatic classification using chain code', IX EMTE National-International Conference of Meteorology-Climatology and Atmospheric Physics, Thessaloniki, Greece, 28-31 May 2008.
74. E. Kostopoulou, C. Giannakopoulos, M. Hatzaki, D. Founda and **H. Flocas**, 2009: On the comparison of extreme climate indices from observed and simulated data in the eastern Mediterranean basin. European Geosciences Union 2008,19-24 April 2009, Vienna, Austria
75. Helmis, C., Sgouros G., **Flocas, H.A.**, Klaus Schäfer<sup>b</sup>, Stefan Emeis<sup>b</sup>, Carsten Jahn, M. Hoffmann, Ch. Heyder, Fl. Haas, Ralf Kurtenbach, Anita Niedojadlo, Michael O'Connor, Evi Anamaterou, 2009: The role of Meteorology on the background Air Quality of the Athens International Airport. 11<sup>th</sup> Conference on Environmental Science and Technology. Chania, Greece, 3-5 September 2009, 448-456.
76. **Flocas, H.A.**, Kouroutzoglou, J., Keay K., Hatzaki, M. 2009: Cyclonic tracks over Eastern Mediterranean in the present climate. 11<sup>th</sup> Conference on Environmental Science and Technology. Chania, Greece, 3-5 September 2009, 312-319.
77. Katavoutas, G., Theoharatos, G., **Flocas, H.**, Jakovides, C., Asimakopoulos, D.N., 2009: A human climatic classification in Western Greece. 11<sup>th</sup> Conference on Environmental Science and Technology. Chania, Greece, 3-5 September 2009, 432-439.
78. Zagouras, T., Argiriou, A., **Flocas H.**, Economou, Fotopoulos, 2009: A machine vision based method for atmospheric circulation classification. 16th International Conference on Digital Signal Processing (DSP 2009), Santorini, Greece, 5-7 July 2009. Proceedings, art. no. 5201149 DOI: 10.1109/ICDSP.2009.5201149
79. Pateraki, S.D. N. Asimakopoulos, Th. Maggos, **H. A. Flocas**, S. Tsakanikas and Ch.Vasilakos, 2009: Influence of traffic and meteorology on the TSP, PM10, PM2.5 and PM1 urban aerosol fractions. European Aerosol Conference (EAC) 2009, 6-11 September, Karlsruhe, Germany. T051A08
80. **Flocas, H.A.** and Hatzaki, M., 2009: Climatic variability in Eastern Mediterranean region: Dynamic mechanisms and impact on regional climate. 5<sup>th</sup> International Conference on Energy, Environment, Ecosystems, and Sustainable Development (EEESD 2009), Athens, 28-30 September 2009, ISBN 978-960-474-125-0, 113-115.
81. Pateraki, S., Asimakopoulos, D.N., Maggos, T., **Flocas, H.**, Vasilakos, C., 2009: Wind, temperature and relative humidity role on PM fraction. 14<sup>th</sup> International Conference on Environmental Pollution and Its impact on life in the Mediterranean region (MESAEP 2009), Bari, Italy, 7-11 October 2009.
82. Kouroutzoglou, J., **Flocas, H.A.**, Simmonds, I., Keay, K., Hatzaki M., 2010: Dynamic Aspects of explosive cyclones in the Mediterranean. 10<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric, Patra, Greece, 25-28 May 2010, 776-784.
83. Hatzaki, M., **Flocas HA**, Tolika, K., Anagnostopoulou, C., 2010: The impact of the Eastern Mediterranean teleconnection pattern on temperature and precipitation regimes over Northwestern Europe. 10<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric, Patra, Greece, 25-28 May 2010, 753-760
84. Katavoutas, G., Theoharatos, G., **Flocas, HA**, Asimakopoulos, D.N., 2010: A field study of heat stress under different thermal and radiation conditions., 10<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric, Patra, Greece, 25-28 May 2010, 486-494.

85. Hatzaki, M., **H. A. Flocas**, I. Simmonds, K. Keay, C. Giannakopoulos, V. Brikolas, and J. Kouroutzoglou, 2010: Climate change and Mediterranean storm tracks: present and future climate simulations of a high-resolution Mediterranean model. 12th Plinius Conference on Mediterranean Storms, Corfu Island Greece, 1-4 September 2010, Vol. 12, Plinius12-41 . (δημοσίευση της περίληψης)
86. Kouroutzoglou, J., **H.A. Flocas**, K. Keay, I. Simmonds, and M. Hatzaki: Assessing characteristics of Mediterranean explosive cyclones for different data resolution. 12th Plinius Conference on Mediterranean Storms, Corfu Island Greece, 1-4 Sept 2010, Vol.12, Plinius 12-16 (δημοσίευση της περίληψης)
87. Hatzaki, M., **H.A. Flocas**, C. Giannakopoulos, E. Kostopoulou, I. Kouroutzoglou, K. Keay, and I. Simmonds, 2010: Assessing the capability of high resolution climatic model experiments to simulate Mediterranean cyclonic tracks. 10<sup>th</sup> EMS Annual Meeting and 8<sup>th</sup> European Conf. on Applied Climatol. (ECAC), Zürich, Switzerland, 13–17 Sep 2010, Vol. 7 EMS 2010-546(δημοσίευση της περίληψης)
88. Kouroutzoglou, J., **Flocas, H.A.**, Simmonds, I., Keay, K., and Hatzaki, M., 2011: On the vertical structure of Mediterranean explosive cyclones employing a high resolution dataset, EGU General Assembly 2011, 3–8 April 2011, Vienna, Austria, Vol. 13, EGU2011-7467(δημοσίευση της περίληψης) .
89. **Flocas, H, 2011**: Explosive cyclones in the Mediterranean: Vertical structure and dynamics. MedClivar Final Conference “Mediterranean Climate: from past to future” 6-9 June 2011, Lecce, Italy, Abstracts Volume, p.8 (δημοσίευση της περίληψης) .
90. Kouroutzoglou, J., **H.A. Flocas**, K. Keay, I. Simmonds, and M. Hatzaki: A climatological study of Mediterranean explosive cyclones employing a high resolution dataset. *12<sup>th</sup> Conference on Environmental Science and Technology*. Rhodes, Greece, 8-10 September 2011, Vol A, 990-998.
91. Pateraki S., Th. Maggos, D. N. Asimakopoulos, **H. A. Flocas** and Ch.Vasilakos, "Atmospheric circulation role on PM fractions", *European Aerosol Conference 2011 (EAC 2011)*, 4-9 September 2011, Manchester, 8P 179.
92. Hatzaki, M., **Flocas, H.A.**, Kouroutzoglou, J., Keay, K., Simmonds I., Giannakopoulos C., Brikolas V., 2011: Changes of Mediterranean cyclones in the future climate employing high resolution climate simulations. AGU Fall Meeting, San Francisco, USA, 5-9 December 2011.
93. Pateraki, S., D.N. Asimakopoulos, **H.A. Flocas**, Th. Maggos & Ch.Vasilakos, Atmospheric circulation role on air pollutants (PM10, NOx, O3): Two different approaches. *11th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP 2012*, Athens, 30 May - 1 June 2012
94. Kouroutzoglou, J., **Flocas, H.A.**, Hatzaki, M., Keay K., Simmonds, I., 2012: On the dynamics of Mediterranean explosive cyclones. *11<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics*, Athens, Greece, 30 May-1 June 2012. (Proceedings will be available in e-book, published by Springer)
95. Katavoutas, G., **Flocas, H**, Tsitsomitsou, M., 2012: Thermal comfort in hot outdoor environment under unsteady conditions. *11<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics*, Athens, Greece, 30 May-1 June 2012. (Proceedings will be available in e-book, published by Springer)
96. Rizou, D., **Flocas, H.**, Athanasiadis P., Bartzokas, A., 2012: Large scale variability associated with Indian summer monsoon. *11<sup>th</sup> International Conference on Meteorology, Climatology and*



*Atmospheric Physics, Athens, Greece, 30 May-1 June 2012. (Proceedings will be available in e-book, published by Springer)*

97. Tsanis, J., Koutroulis, AG., **Flocas HA**, Kouroutzoglou, J., Kaminari M., Simmonds, I, 2012: Atmospheric circulation patterns associated with flood occurrence in Crete, Greece. Protection and Restoration of Environment XI, Thessaloniki, 3-6 July 2012, 1843-1852.
98. Rizou D., Flocas HA, Bartzokas A., Helmig CG, 2012: The influence of summer monsoon on the climatic regime of Eastern Mediterranean. European Geosciences Union 2012, 22-27 April 2012, Vienna, Austria Vol. 14, EGU2012-10717-2 (δημοσίευση της περίληψης)
99. Rizou D., **Flocas HA**, Bartzokas A., Helmig CG, Hatzaki M., 2012: Investigating the intraseasonal connection between Indian monsoon and the wind regime of Eastern Mediterranean during the summer period. 9th European Conference on Applied Climatology, 10-14 September 2012, Lodz Poland, Vol. 9, EMS2012-415, 2012 (δημοσίευση της περίληψης)
100. Rizou D, **Flocas HA**, Bartzokas A., Helmig CG, 2013: On the link between summer Indian monsoon and the etesian pattern over the Aegean sea. *13<sup>th</sup> Conference on Environmental Science and Technology*, 5-7 September 2013, Athens, Greece.
101. Kaminari, M., **Flocas HA**, Kouroutzoglou J., Tsanis J, Koutroulis, A. and Simmonds I., 2013: Vertical structure of synoptic scale cyclones causing flood events in the island of Crete. *13<sup>th</sup> Conference on Environmental Science and Technology*, 5-7 September 2013, Athens, Greece.
102. Kouroutzoglou J., **Flocas HA.**, Hatzaki M. ,Keay K., Simmonds I.,Mavroudis A., 2013: Identification of development mechanisms of an explosive cyclone in Central Mediterranean with the aid of MSG satellite images. *First International Conference on Remote Sensing and Geoinformation*, 8-10 April 2013, Paphos, Cyprus.
103. Hatzaki M., **Flocas HA**, Simmonds I., Kouroutzoglou J., Keay K., Rudeva I., 2013: The implementation of an automated tracking algorithm for the track detection of migratory anticyclones affecting the Mediterranean. European Geosciences Union 2013, 7-12 April 2013, Vienna, Austria Vol. 15, EGU2013-7071, 2013 (δημοσίευση της περίληψης)
104. Iordanidou V., Koutroulis A.G., Tsanis I.K., **Flocas H.A.** 2013: Qualitative Features of Cyclones triggering high precipitation events in the Island of Crete, Eastern Mediterranean. European Geosciences Union 2013, 7-12 April 2013, Vienna, Austria (δημοσίευση της περίληψης)
105. Hatzaki M., **Flocas H.A.**, Simmonds I., Kouroutzoglou J., Keay K., Rudeva I., 2013: Temporal and spatial variability of migratory anticyclones affecting the Mediterranean. 11th European Conference on Applied Meteorology, Reading UK, 9-13 September, 2013, Vol. 10, EMS2013-416, 2013.
106. Hatzaki M., **Flocas H.A.**, Simmonds I., Kouroutzoglou J., Keay K., Rudeva I., 2014: Variability and trends of migratory anticyclones affecting the Mediterranean. European Geosciences Union 2014, 27 April-2 May 2014, Vienna, Austria Vol. 15, EGU2013-7071 (abstract).
107. Calafat F. M., E. Augoustoglou, G. Jordà, **H. Flocas**, M. N. Tsimplis, 2014: Testing the ability of barotropic models to simulate sea level extremes of meteorological origin in the Mediterranean Sea. European Geosciences Union 2014, April-2 May 2014, Vienna, Austria Vol. 15, EGU2014-8208 (δημοσίευση της περίληψης).

108. Hatzaki M., **Flocas H.A.**, Simmonds I., Kouroutzoglou J., Keay K., Rudeva I. 2014: Vertical structure of migratory anticyclones affecting the Mediterranean. 21<sup>st</sup> Conference on Applied Climatology, Westminster, Colorado, USA 9-13 June 2014.
109. Kouroutzoglou, J., **Flocas H.**, Hatzaki M., Yiannikopoulou I., Keay K., Simmonds, I., 2014: Assessing the influence of diabatic heating on Mediterranean explosive cyclones. 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Greece, 28 May-31 May 2014.
110. Avgoustoglou E., **Flocas H.**, Kouroutzoglou J., Kalafat F.M., Tsimplis M., Jorda g., 2014: Variations of sea level pressure during explosive cyclogenesis in the Mediterranean. 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Greece, 28 May-31 May 2014.
111. Hatzaki M., **Flocas H.A.**, Simmonds I., Kouroutzoglou J., Keay K., Rudeva I., 2014: Migratory anticyclones affecting the Mediterranean: climatological characteristics and links with modes of atmospheric variability. 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Greece, 28 May-31 May 2014.
112. Kosmopoulos P.G., Kazadzis S., **Flocas H.A.**, Marinou E., Amiridis V., Taylor M., Jacovidis, C.P.2014: A 3D aerosol climatology in the atmosphere of Greece by remote sensing & radiative-transfer modeling techniques. 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, Heraklion, Greece, 28 May-31 May 2014. Volume 2, 13-17.
113. Hatzaki, M., **Flocas. HA**, Simmonds I., Kouroutzoglou, J., Garde L., Keay K. and Bitsa E. 2014: Study of Anticyclogenesis affecting the Mediterranean. AGU Fall Meeting, 15-19 December 2014, San Francisco, USA.
114. Flocas, H.A., Katavoutas G., Tsanis I., Iordanidou V., 2015: On the dynamics of synoptic scale cyclones associated with flood events in Crete. European Geosciences Union 2015, 12-17 April 2015, Vienna, Austria (δημοσίευση της περίληψης).
115. Tsanis, I.K., Flocas, H., Alexakis, D.D., Vozinaki, A.E.K., Katavoutas, G., Iordanidou, V., Palogos, I., Giannakis, G., Panakoulia, S., Morianou, G., Pappa, P., Papadakis, V., 2015: Remote Sensing Meteorological Data Fusion for effective flood mitigation and forecasting over Mediterranean. 9<sup>th</sup> World Congress Water Resources management in a changing world: Challenges and Opportunities. 10-13 June 2015, Instabul Turkey. (δημοσίευση της περίληψης), p. 205.
116. Hatzaki M., Flocas H.A., Simmonds I., Kouroutzoglou J., Garde L., Keay K. Bitsa E. Vertical structure of Mediterranean anticyclogenesis. 14<sup>th</sup> International Conference on Environmental Science and Technology, 3-5 September 2015, Rhodes, Greece

#### **PUBLICATIONS IN BOOKS**

1. Katavoutas, G., **Flocas, H**, Tsitsomitsou, M., 2012: Thermal comfort in hot outdoor environment under unsteady conditions. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 175-180, eds Helmis C. And Nastos P., Springer Atmospheric Sciences
2. Rizou, D., **Flocas, H.**, Athanasiadis P., Bartzokas, A., 2012: Large scale variability associated with Indian summer monsoon. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 701-708, eds Helmis C. And Nastos P., Springer Atmospheric Sciences.

3. Kouroutzoglou, J., **Flocas, H.A.**, Hatzaki, M., Keay K., Simmonds, I., 2012: On the dynamics of Mediterranean explosive cyclones. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 563-569, eds Helmis C. And Nastos P., Springer Atmospheric Sciences
4. Yiannikopoulou, I., Deligiorgi D., Flocas H A., Philipopoulos K., 2012:A dynamical-statisticaldownscaling approach for simulating air temperature time series. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 811-817, eds Helmis C. And Nastos P., Springer Atmospheric Sciences
5. Pateraki, S., D.N. Asimakopoulos, **H.A. Flocas**, Th. Maggos & Ch.Vasilakos, Atmospheric circulationrole on air pollutants (PM10, NOx, O3): Two different approaches. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 1166-1172, eds Helmis C. And Nastos P., Springer Atmospheric Sciences
6. Sioutas M., Nastos, P., Matsagouras I. And Flocas HA., 2012: Meteorological conditionas associatedwith strong tornadoes in Greece. In: *Advances in Meteorology, Climatology and Atmospheric Physics*, Volume 1, 293-299, eds Helmis C. And Nastos P., Springer Atmospheric Sciences