

CURRICULUM VITAE

THEODORE S. KARACOSTAS

PERSONAL INFORMATION

Family Name: Karacostas
First Name: Theodore
Date of Birth: October 1st, 1950
Nationality: Greek
Place of Birth: Naoussa – Macedonia - Greece
Home Address: 151, G. Papanikolaou Ave., GR-57010, Asvestohori, Thessaloniki
Phone Number: ++30 2310 676052

Present Affiliation: Professor Emeritus
Work Address: Department of Meteorology and Climatology, School of Geology,
Faculty of Sciences, Aristotle University of Thessaloniki, GR-54124, Thessaloniki,
GREECE.

Office Phone Number: ++30 2310 998456
Office Fax Number: ++30 2310 995392
e-mail: karac@geo.auth.gr

Extra Duties: Vice President: Research Committee of the Aristotle University (2010-2015)
Co-Editor-in-Chief: SPRINGER, Acta Geophysica, Section Atmospheric Sciences
Associate Editor: ELSEVIER, Atmospheric Research
Associate Editor: WILEY, Advances in Meteorology
Guest-Editor: Journal of Atmospheric Research, ELSEVIER. Special Issue "High
Impact Atmospheric Processes in the Mediterranean"
Guest-Editor: Journal Atmosphere, MDPI. Special Issue "Fire Meteorology:
Observations and Modeling from Micro- to Meso- Scale".

Civil Status: Married, one child

EDUCATION

1974: **B. Sc.** Degree in Mathematics. Aristotle University of Thessaloniki, Faculty of Science, School of Mathematics. GREECE. (*Honours*)

1978: **M.Sc.** Degree in Atmospheric Sciences. University of Wyoming, School of Engineering, Department of Atmospheric Sciences, Laramie, Wyoming, U.S.A. (*Honours*)
Thesis: "Transport and Turbulent Diffusion over Mountainous Terrain".

1981: **Ph.D.** Degree in Atmospheric Sciences. University of Wyoming, School of Engineering, Department of Atmospheric Sciences, Laramie, Wyoming, U.S.A. (*Honours*)

WORKING RESEARCH AND TEACHING POSITIONS

- **University of Wyoming, Dept of Atmospheric Science, Engineering School, Wyoming, U.S.A.**
 - 1975-1977: **Research Assistant.** Department of Atmospheric Sciences. University of Wyoming, U.S.A.
 - 1977-1978: **Research Scientist.** Department of Atmospheric Sciences. University of Wyoming, U.S.A.
 - 1978-1981: **Research Associate.** Department of Atmospheric Sciences. University of Wyoming, U.S.A.
- **Aristotle University of Thessaloniki, Department of Meteorology and Climatology, GREECE.**
 - 1970-1973: **Observer-Research Meteorologist.** Institute of Meteorology and Climatology,
 - 1974-1975: **Research Assistant.** Institute of Meteorology and Climatology.
 - 1986-1991: **Assistant Professor.** Department of Meteorology and Climatology.
 - 1991-1994: **Associate Professor.** Department of Meteorology and Climatology.
 - 1996-2018: **Full Professor.** Department of Meteorology and Climatology.
 - 2010-2015: **Vice President. Research Committee of the Aristotle University (Extra Duties)**
 - 2018-today: **Professor Emeritus.** Department of Meteorology and Climatology.
- **Ministry of Agriculture, GREECE.**
 - 1983-1984: **Scientific Consultant:** Design of the Greek National Hail Suppression Project.
 - 1984-2006: **Scientific Director** of the Greek National Hail Suppression Project.
- **"ANATOLIA College", American University in Thessaloniki, GREECE.**
 - 1983-1992: **Professor.** Department of Business Administration and Liberal Arts. Thessaloniki. GREECE.
Teach: 1. Calculus I, 2. Calculus II, 3. Elementary Statistics and 4. Statistics and Probability.
- **Ministry of Agriculture, ITALY.**
 - 1989-1999: **Consultant / Member of the International Scientific and Advisory Committee (5-members)** of the Cloud Physics Rain Enhancement Project in South Italy, "**Progetto Pioggia**" - "**Rain Enhancement Project of Italy**".
- **Aristotle University of Thessaloniki, GREECE.**
 - **Teaching at the Aristotle University of Thessaloniki, GREECE.**
 - Undergraduate:**
 - General and Dynamic Meteorology,** Dept. of Mathematics, Undergraduate level (1986-2014).
 - Synoptic and Dynamic Meteorology,** Dept. of Geology, Undergraduate level (1986-2006).
 - Graduate:**
 - Dynamic Meteorology,** Dept. of Geology, Graduate level (1995-today).
 - Cloud Microphysics,** Dept. of Geology, Graduate level (1995-today).
 - Weather Modification,** Dept. of Geology, Graduate level (1995-today).
 - Analysis of Extreme Natural Phenomena,** inter-faculty master programme (Dept. of Geology, Dept. of Mathematics and Dept. of Economics), with the title: "**Networks and Complexity**". (2014-today).

Life and Geo-economic Networks, inter-faculty master programme (Dept. of Geology, Dept. of Mathematics and Dept. of Economics), with the title: **“Networks and Complexity”**. (2018-today).
Introduction to the Environmental Sciences, inter Institutional and inter-faculty master programme (Dept. of Geology, Dept. of Medicine), with the title: **“Health and Environment”**. (Coordination) (2018-today).
Meteorological Risks and Disasters, inter Institutional and inter-faculty master programme (Dept. of Geology, A.U.Th. - Dept. of Geography, Aegean University), with the title: **“Natural Risks and Confrontation of Disasters”**. (2017-today).

➤ **Student supervising at the Aristotle University of Thessaloniki, GREECE.**

- 36 **Diploma** Research Papers. Dept. of Geology, Undergraduate level.
- 28 **Master** of Science Degree Theses. **Supervisor**. Graduate School on Meteorology, Climatology and Atmospheric Environment
- 23 **Master** of Science Degree Theses. **Advisory Committee**. Graduate School on Meteorology, Climatology and Atmospheric Environment
- 10 **Master** of Science Degree Theses. **Examination Committee**. Universities Abroad.
- 15 **Doctor** Degree Dissertations. **Supervisor**. Graduate School on Meteorology, Climatology and Atmospheric Environment
- 12 **Doctor** Degree Dissertations. **Advisory Committee**. Graduate School on Meteorology, Climatology and Atmospheric Environment
- 17 **Doctor** Degree Dissertations. **Examination Committee**. Graduate School on Meteorology, Climatology and Atmospheric Environment
- 6 **Doctor** Degree Dissertations. **Examination Committee**. Universities Abroad.

ADMINISTRATIVE POSITIONS AT A.U.Th.

- **Διευθυντής του Τομέα** Μετεωρολογίας και Κλιματολογίας για τα παρακάτω δέκα (10) ακαδημαϊκά έτη:

1999 - 2000	2011 - 2012
2000 - 2001	2012 - 2013
2008 - 2009	2013 - 2014
2009 - 2010	2014 - 2015
2010 - 2011	2015 - 2016
- **Διευθυντής του Προγράμματος Μεταπτυχιακών Σπουδών** του Τομέα Μετεωρολογίας και Κλιματολογίας για τα παρακάτω επτά (7) ακαδημαϊκά έτη:

2003 - 2004	2010 - 2011
2004 - 2005	2011 - 2012
2005 - 2006	2012 - 2013
2007 - 2008	
- **Διευθυντής του Εργαστηρίου** Μετεωρολογίας και Κλιματολογίας, από το 1998 έως το 2018.
- **Υπεύθυνος** των Μετεωρολογικών Σταθμών του **Ολύμπου**, από το 1998 έως το 2018.
- **Αντιπρόεδρος της Επιτροπής Ερευνών και Διαχείρισης** του Ε.Λ.Κ.Ε. του Α.Π.Θ., για την περίοδο **2010-2015**.

ADMINISTRATIVE POSITIONS BESIDES A.U.Th.

- **Επιστημονικός Σύμβουλος** του Υπουργείου Υγείας Πρόνοιας και Κοινωνικών Ασφαλίσεων, για το σχεδιασμό του **Εθνικού Προγράμματος Χαλαζικής Προστασίας** των καλλιεργειών, **1983-1984**.
- **Επιστημονικός Διευθυντής** του **Εθνικού Προγράμματος Χαλαζικής Προστασίας** των καλλιεργειών, του Υπουργείου Υγείας Πρόνοιας και Κοινωνικών Ασφαλίσεων **1984-1988**.
- **Italy - Ministry of Agriculture: Member/consultant** of the **Scientific and Advisory International Committee** (5-members) of the Cloud Physics Rain Enhancement Project in South Italy, "Progetto Pioggia", **1989-1999**.

DISTINCTIONS – SIGNIFICANT RESEARCH ACHIEVEMENTS

- 1969 - 1973: **Scholarship** from the **Greek State Scholarship Foundation** for all the undergraduate years of my studies at the Department of Mathematics of the Aristotle University of Thessaloniki.
- 1975 - 1977: **Scholarship** from the **National Science Foundation (NSF) of U.S.A.**, through the Department of Atmospheric Sciences, School of Engineering of the University of Wyoming [DES (ATM) 75-02515].
- 1978 - 1981: **Scholarship** from the **Bureau of Reclamation, Department of the Interior of U.S.A.**, through the Department of Atmospheric Sciences, School of Engineering of the University of Wyoming [14-06-6801 and 7-07-93-VOOO1].
- 1979: **Invitation**, by the **World Meteorological Organization (WMO)**, for the design of the **Turbulent Diffusion** part of the **"Precipitation Enhancement Project (PEP)" of the United Nations**.
- 1980: **Invited speaker** from the **World Meteorological Organization (WMO)**, at the **Third World Meteorological Organization Scientific Conference on Weather Modification**, at Clermont-Ferrand, FRANCE.
- 1981: **Nominated**, by the **Scientific Committee of the University of Wyoming - USA**, for the **"1982 Award"**, as the **best Researcher Graduate Student**.
- 1982: **Invited lecturer** at the workshop of the **Advanced Study Institute on Mesoscale Meteorology: Observations, Theory, and Models**. Bonas, FRANCE.
- 1983: **Nominated**, by the **Greek National Meteorological Service**, for the **"1983 Award"** of **WMO**, as the **best Young Research Scientist**.
- 1983 - 1984: **Design** of the **"Greek National Hail Suppression Program"**. This program was scientifically accepted by the **WMO** and it is still operational, up to today.
- 1984 - 1988: **Scientific Director** of the Greek National Hail Suppression Program.
- 1986: **"KF-theory"**, that is, **"Karacostas-Flocas – theory"**:
After the publication of the paper entitled: *"The Development of a "Bomb" over the Mediterranean Area"*, the explosive cyclogenesis with similar thermodynamic and dynamic characteristics are **referred in the literature** as **"KF"**, after the initials of the authors: **Karacostas** and **Flocas**.
- 1989 - 2000: Member of the **Scientific Committee** of the **European Union on Weather Modification**.

- 1989: Member of the **Scientific Committee** of the **European Union** on **Meteorological Radars**.
- 1989 - 1999: **Scientific and Advisory International Committee** (5-members) of the **Cloud Physics Rain Enhancement Project** in South Italy, "**Progetto Pioggia**".
- 1992 - 1993: **Design** of the "**Greek Rain Enhancement Project**".
- 1993: **Invited Presentation** of the "**5-YEAR PLAN PROGETTO PIOGGIA**" to the **Italian Minister for Agriculture and Forestry**, **Senator A. Dina**, and to the **Italian public**, within the overall Italian "**PROGETTO AGUA**", April, Rome.
- 1994: Member of **Evaluation Committee** of University faculty member at **University of Israel**.
- 1995: **Invited Speaker** of the **International Decade for Natural Disaster Reduction (IDNDR)** of **United Nations**, at the "**Seminar on the Role of Universities and Scientific Institutions in Disaster Reduction**", Geneva, Swiss.
- 1995: Member of the **World Meteorological Organization (WMO) Meeting of Experts** to Review the **Present Status of Hail Suppression**, Golden Gate National Park, **South Africa**.
- 1996: **Invited Lecture** at **International Symposium on Weather Modification**, **University of Rome**, 23 May 1996.
- 1996: **Invited paper** at the **International Symposium on Weather Modification in the Mediterranean**, **University of Bari, Italy**.
- 1997: **External Advisor Reviewer** of the **Alberta Hail Suppression project**, **Canada**
- 1999: Member in the **WMO meeting** for the **planning of Precipitation Enhancement Projects** in the **Mediterranean, S.E. Europe and Middle East** countries (**MEDSEEME-PEP**), **Monselice, Italy**.
- 1999 - 2000: **Evaluation** of the "**Greek National Hail Suppression Program**".
- 2003: Member of the **World Meteorological Organization (WMO) Meeting of Experts** to Review the **Present Status of Hail Suppression**, **Nalchik, Russia**.
- 2002 - **External Evaluator** of the **Scientific Examining Committee** of six (6) **Doctor Degree Dissertations** and ten (10) **Master of Science Degree Theses**, for the **Faculty of Science** of several **Universities** abroad, including mainly the **Cairo University, Egypt**.
- 2010: Member of **Evaluation Committee** of the University faculty member at the **University of Israel** (1994-95), and at the **University of the Kingdom of Saudi Arabia** (2010).
- 2010 - 2015: Elected **Vice President** of the **Research Committee** of the **Aristotle University of Thessaloniki, Greece**.
- 2016: **Key-note speaker** at the **2d International Scientific Conference**, **Geobalcanica 2016, Scopia, FYROM**.
- 2017 **Editor of the Book**: **Perspectives on Atmospheric Sciences**. **SPRINGER** International Publishing, Volumes I and II, pages 1259, DOI 10.1007/978-3-319-35095-0.
- 2017 - **Co-Editor-in-Chief**: **SPRINGER, Acta Geophysica, Section Atmospheric Sciences**
- 2017 - **Associate Editor**: **ELSEVIER, Atmospheric Research**
- 2017 - **Associate Editor**: **HINDAWI, Advances in Meteorology**
- Scientific reviewer** to more than 20 different **scientific journals**
- 2018: **Key-note speaker** at the **4th International Scientific Conference**, **Geobalcanica 2018, Scopia, FYROM**.

RESEARCH PROJECTS, COMPETATIVE

- 1973 – 1974: **Μοντέλο Αντικυκλώνας στη Βαλκανική**, Εργαστήριο Μετεωρολογίας και Κλιματολογίας, Α.Π.Θ., - (Συμμετοχή).
- 1973 – 1974: **Ηλιοφάνεια και Νέφωση των Αθηνών**, Εργαστήριο Μετεωρολογίας και Κλιματολογίας, Α.Π.Θ., - (Συμμετοχή).
- 1973 – 1974: **Ηλιοφάνεια και Νέφωση στην Αθήνα και Θεσσαλονίκη**, Εργαστήριο Μετεωρολογίας και Κλιματολογίας, Α.Π.Θ., - (Συμμετοχή).
- 1975 - 1876: **National Hail Research Experiment (NHRE)**. Colorado, U.S.A. (*Research Associate*).
- 1976 - 1977: **Ice Phase in Wintertime Clouds**. Wyoming, U.S.A. (*Research Associate*).
- 1977 - 1978: **Wind Energy**. Medicine Bow Mountains, Wyoming, U.S.A. (*Research Associate*).
- 1978 - 1981: **Sierra Cooperative Pilot Project (SCPP)**. California, U.S.A. (*Research Associate*).
- 1984 - 1988: **The Greek National Hail Suppression Program**. Ministry of Health and Social Insurance, Greece. (*Contractor*).
- 1986 - 1986: **Wind Energy over the Greek Area**. General Secretariat for Research and Technology, Greece.
- 1989 - 2005: **Greek National Hail Suppression Program**. (*Scientific Consultant*).
- 1990 - 1997: **Rain Enhancement Project in South Italy "Progetto Pioggia"**. Ministry of Agriculture, Italy. (*Scientific Consultant*).
- 1991 - 1992: **Development of Weather Radar Hydrology in Greece**. "European Programme on Climatology and Natural Hazards - EPOCH". (*Scientific Director*).
- 1991 - 1993: **Effects of Climatic Changes on Agricultural and Horticultural Potential in the European Communities. (EPOCH)** – European Union. (*Scientific Director*).
- 1991 - 1993: **Rain Enhancement Project in Greece in Winter-time Clouds: Design the program**. Ministry of Environment. Greece. *Contractor*. 15,407.19 €.
- 1993 - 1995: **Climatic Change and Agriculture: Assessment of Impacts and Adaptation**. (ENVIRONMENT) - European Union. *Contractor*. 159,040 € (total: 1,530,000 €).
- 1993 - 1995: **The Impact of Greenhouse Gas-Induced Climate Change on the Frequency and Intensity of Heat Waves in Greece**. Ministry of Research and Technology. Greece. *Contractor*. 4,893.81 €.
- 1994 - 1995: **Climatic Change and Extreme Events: Altered Risk, Socio-Economic Impacts and Policy Responses**. (ENVIRONMENT) - European Union. *Contractor*. 32,577.84 € (total: 172,977.84 €).
- 1996- 1998: **Climatic Change, Climatic Variability and Agriculture in Europe: An Integrated Assessment**. (ENVIRONMENT). European Union. *Contractor*. 60,000 € (total: 1,675,000 €).
- 1998 - 2000: **Evaluation of the Greek National Hail Suppression Project**. Ministry of Agriculture, Greece, *Contractor*, 73,346.43 €.
- 1997 - 1999: **Hailstorm Forecasting**. (*Contractor*).
- 2000 – 2002: **Climatological Characteristics of Thessaloniki During the last Century**. *Contractor*.
- 2001: **Greek Pilot Project on Rain Enhancement in Summer-time Clouds**. Ministry of Agriculture, Greece. (*Contractor*).
- 2001 – 2002: **The Contribution of Meteorology and Climatology to Human Environment**. *Contractor*.
- 2006 – 2007: **Ten years of Postgraduate Studies in Meteorology and Climatology**. *Contractor*.
- 2007 – 2008: **Graduate Studies at the School of Geology – A.U.Th**. *Contractor*.
- 2009 – 2010: **Weather, Climate and the Air we Breath**. *Contractor*.
- 2010 – 2011: **The Weather, the Climate and the Climatic Changes**. *Contractor*.

- 2011 - **The Weather and Climate from the Space.** *Contractor.*
- 2011 - **Analyses of Meteorological and Climatological Data.** *Contractor.*
- 2007 - 2008: **“NEFELI”: Scientific and Educational Seminars related to: “Modern and Innovative Methodologies for the Identification, Study and Forecast of Extreme Weather Events, with Applications of them to Macedonia and Thessaly”,** Ministry of Research and Development, Greece. *Coordinator-Contractor.* 158,000 €.
- 2008 - 2009: **On the Study of Fog Development at the “MACEDONIA” airport of Thessaloniki, with the aim to Forecast it.,** JOHN S. LATSIS Public Benefit Foundation. *Coordinator-Contractor.* 11,000 €.
- 2009 – 2010: **On the Study of Estimating-Calculating the Wind Energy and the Solar Energy at the Areas: Taxiarchis Chalkidikis, Kolhikou Thessalonikis and Pertouli Trikalon.** University of Thessaloniki, Greece. *Coordinator-Contractor.* 45,000 €.
- 2009 - 2010: **Database Development for the Meteorological and Climatological Observations of the Aristotle University of Thessaloniki Meteorological Station.** University of Thessaloniki, Greece. *Coordinator-Contractor.* 15,000 €.
- 2009 - 2010: **Investigation Studies and Installation Procedures for Meteorological Stations over Central Macedonia.** 3D S.A. (private company). *Coordinator-Contractor.* 2,521 €.
- 2010 – 2012: **An Innovative Methodology as a Feedback to the Climate Change Effects: the Potentiality of Applying Precipitation Enhancement Projects.** General Secretariat for Research and Technology, Greece. - (Coordinator-Contractor).
- 2011 - 2012: **Calculation – Estimation of Wind Energy Potential over the Vermion Mountainous area of Naoussa.** Municipality of Naoussa. *Coordinator-Contractor.* 12,195.12 €.
- 2012 – 2016: **An Innovative and Integrated Conceptual Model to Mitigate the Impact of Climate Change on Drought: Potentiality and Applicability of a Precipitation Enhancement Project in Thessaly.** European Union - Ministry of Research and Development, Greece. *Coordinator-Contractor.* 742,000 €.
- 2012 – 2013: **Μελέτη των κλιματολογικών χαρακτηριστικών σε τέσσερις διακεκριμένες περιοχές της Βόρειας Ελλάδας.** Χρηματοδότης: E. ON NEW BUILD & TECHNOLOGY GMBH, - (*Coordinator-Contractor*).
- 2012 – 2015: **An Innovative and Integrated Conceptual Model to Mitigate the Impact of Climate Change on Drought: Potentiality and Applicability of a Precipitation Enhancement Project in Thessaly (DAPHNE).**
Ένα Καινοτόμο και Ολοκληρωμένο Εννοιολογικό Μοντέλο για την Αντιμετώπιση των Επιπτώσεων της Κλιματικής Μεταβολής στην Ξηρασία: Δυναμικότητα Εφαρμογής ενός Προγράμματος Αύξησης των Βροχοπτώσεων στη Θεσσαλία (ΔΑΦΝΗ).
NSRF 2007-2013 & ERDF. Hellenic Ministry of Education and Religious Affairs, Culture and Sports. General Secretariat for Research and Technology, Greece. - (*Coordinator-Contractor:* 742,000 €).
- 2012 – 2015: **WaveForUs (Πιλοτικό σύστημα για την ανάπτυξη και αναμετάδοση ημερήσιων προγνώσεων κυματισμών και θαλάσσιας κυκλοφορίας στο Θερμαϊκό κόλπο για δημόσια χρήση και έκτακτες συνθήκες).**
NSRF 2007-2013 & ERDF. Hellenic Ministry of Education and Religious Affairs, Culture and Sports. General Secretariat for Research and Technology, Greece. Επιστ. Υπεύθ.: Επικ. Καθ.: Ι. Πυθαρούλης, - (*Κύριος Ερευνητής: 117,710 €*).
- 2015 – 2016: **LESinFIRE (Large Eddy Simulations in Wildland Fires).** Διάθεση πόρων στο υπερ-υπολογιστικό σύστημα ARIS του ΕΔΕΤ για την εκτέλεση αριθμητικών προσομοιώσεων μοντέλων καιρού και πυρκαγιών. ΕΔΕΤ Α.Ε., - (Επιστημονικός Υπεύθυνος).

- 2015 – 2016: **CORRECT (Cloud Resolving Climate Simulations)**. Διάθεση πόρων στο υπερ-υπολογιστικό σύστημα ARIS του ΕΔΕΤ. Επιστ. Υπεύθ.: Επικ. Καθ. Ι. Πυθαρούλης (Α.Π.Θ.), - (Ερευνητής)
- 2016 – 2017: **CORFIRE (Cloud Resolving climate and FIRE Simulations)**. Διάθεση πόρων στο υπερ-υπολογιστικό σύστημα ARIS του ΕΔΕΤ για την εκτέλεση αριθμητικών προσομοιώσεων μοντέλων καιρού και πυρκαγιών. - (Επιστημονικός Υπεύθυνος).
- 2017 – 2021: **AfriCultuReS (Enhancing food security in AFRIcan agriCUTLural systems with the support of REmote Sensing)**. Χρηματοδότης: EC / Horizon2020-SFS-2017-1. Συντονιστής: Juan Suárez Beltrán (GMV, Ισπανία). Επιστ. Υπεύθ.: Επικ. Καθ. Ε. Κατράγκου (Α.Π.Θ.), - (Ερευνητής).

Συνοπτική εικόνα των ερευνητικών προγραμμάτων ως προς το φορέα χρηματοδότησης.

1	Από Η.Π.Α.	4
2	Από την Ευρωπαϊκή Ένωση	13
3	Από άλλες Ευρωπαϊκές χώρες	1
4	Από Ελληνικό Δημόσιο – ΔΕΚΟ, κλπ.	16
5	Από τον Ιδιωτικό τομέα	3
6	Από το Α. Π. Θ.	3
	Σύνολο	40
	Εκτίμηση χρηματοδότησης	>1,5M €

EDITORIAL BOARD MEMBER

- **Editor** of the Book: **Perspectives on Atmospheric Sciences**. **SPRINGER - Verlag Berlin Heidelberg**, International Publishing, **Volumes I and II**, total pages 1259, ISBN 978-3-319-35094-3, DOI 10.1007/978-3-319-35095-0.
- **Co-Editor-in-Chief**: **Acta Geophysica**, Section **Atmospheric and Space Sciences**
- **Associate Editor**: Journal of Advances in Meteorology, **HINDAWI-WILEY**.
- **Associate Editor**: Journal of Atmospheric Research, **ELSEVIER**.
- **Guest-Editor**: Journal of Atmospheric Research, **ELSEVIER**.

REVIEWER AT INTERNATIONAL JOURNALS (indicative)

- Nature
- Advances in Meteorology,
- Atmospheric Research,
- Acta Geophysica
- Bulletin of the American Meteorological Society,

- Monthly Weather Review,
- Journal of Applied Meteorology and Climatology,
- Journal of Atmospheric Sciences,
- Theoretical and Applied Climatology
- Meteorology and Atmospheric Physics,
- International Journal of Climatology,
- Journal of Geophysical Research,
- Journal of Climate,
- Climate Research
- Natural Hazards and Earth System Sciences,
- Atmospheric Chemistry and Physics,
- Advances in Science and Research,
- Asia-Pacific Journal of Atmospheric Sciences
- Meteorologische Zeitschrift,
- Environmental Fluid Mechanics,
- Atmosphere
- Geofizika

EVALUATOR OF RESEARCH PROJECTS

- National Science Foundation, USA.
- National Oceanic and Atmospheric Administration, USA.
- National Science Center, Poland.
- State Scholarships Foundation, Greece.
- ΓΓΕΤ - ΕΥΔΕ ΕΤΑΚ, ΕΣΠΑ 2007-2013, Δράση «Συνεργασία 2009», Ελλάδα.
- Ελληνικό Ίδρυμα Έρευνας και Καινοτομίας (ΕΛΙΔΕΚ), Ελλάδα.

ORGANIZE INTERNATIONAL CONFERENCES (*indicative*)

- 1^ο Διεθνές **Συνέδριο** Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας, Θεσσαλονίκη, **1992**, (*Γραμματέας Συνεδρίου*).
- **Workshop** on “The Effect of Climate Change on Agricultural and Horticultural Potential in Europe”, Χαλκιδική, **1994**, (*Πρόεδρος*).
- IAMAS/IAPSO Joint **Assemblies**: Melbourne, Australia, **1997**, (*Co-Convenor: JMP-15 Transport of Particles in Turbulence*).
- 5^ο Διεθνές Επιστημονικό **Συνέδριο** Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας, Θεσσαλονίκη, **2000**, (*Πρόεδρος Συνεδρίου*).
- **Ημερίδα** του ερευνητικού έργου «Daphne». Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης, Θεσσαλονίκη, **2015**, (*Πρόεδρος*).
- **Ημερίδα** του ερευνητικού έργου «Daphne». Δήμος Λαρισαίων, Λάρισα, **2015**, (*Πρόεδρος*).
- 13th International **Conference** on Meteorology, Climatology and Atmospheric Physics (COMECAP 2016), Thessaloniki, **2016**, (*Πρόεδρος Συνεδρίου*).

CITATIONS AND IMPACT FACTOR

- According to **SCOPUS**, there are **1,268 citations (excluding self-citations of all authors)** in the Scopus international scientific literature, with the **h-index** to be **19** (25/04/2024).
- According to **GOOGLE SCHOLAR**, there are **2,171 citations (excluding self-citations of all authors)** in the international scientific literature, with the **h-index** to be **24** (25/04/2024).

MEMBER OF LOCAL AND INTERNATIONAL SOCIETIES

1. Greek Meteorological society
2. American Meteorological Society
3. Canadian Meteorological Society
4. Hellenic Meteorological Society
5. Weather Modification Association
6. Association of British Climatologists
7. Hellenic Mathematical Society
8. Association of British Climatologists
9. European Geophysical Society
10. International Decade for Natural Disaster Reduction
11. International Association of Meteorology and Atmospheric Sciences
12. International Association for the Physical Sciences of the Ocean

ΔΗΜΟΣΙΕΥΣΕΙΣ

DISSERTATIONS

1. **Karacostas, T. S., 1978:** Transport and Turbulent Diffusion Over Mountainous Terrain. **M.Sc. Thesis**, Department of Atmospheric Sciences, University of Wyoming, USA, pp. 116.
2. **Karacostas, T. S., 1981:** Turbulent Diffusion Studies of Winter Storms Over the Sierra Nevada Mountains. **Ph.D. Dissertation**. Department of Atmospheric Sciences, University of Wyoming, USA, pp. 205.

B O O K S

- B.1** List, R. R., M. T. Abshaev, B. Boe, J. P. Chalon, J. R. de Grado, H. Holler, H. Zhijin, **T. S. Karacostas**, G. Mather, G. Morgan, H. D. Horville, P. Simeonov, D. E. Terblanche, and F. Delsol, **1996**: Meeting of Experts to Review the Present Status of Hail Suppression. **WMO/TD-No. 764**, 39pp.
- B.2** **Karacostas, T., 2000**: The Evaluation of the Greek National Hail Suppression Program. *Aristotle University of Thessaloniki*, 108pp. (in Greek).
- B.3** **Karacostas, T. S., A. F. Bais and P. T. Nastos, 2017**: *Perspectives on Atmospheric Sciences*, Vol. 1. & Vol. 2., Springer Atmospheric Sciences. **Springer-Verlag Berlin Heidelberg**, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.

C H A P T E R S I N B O O K S

- K.1** **Karacostas, T. S., and A. A. Flocas, 1993**: The Identification and Characterisation of Extreme Weather Years, 41-66. In *The Effect of Climate Change on Agricultural and Horticultural Potential in Europe*. Edited by: G. J. Kenny, P. A. Harrison and M. L. Parry, Environmental Change Unit, **University of Oxford**, 224pp, (ISBN 1-874370-02-8).
- K.2** **Karacostas, T. S., and M. J. Gawith, 1994**: Heat Waves in a Changing Climate, 53-60. In *Climate Change and Extreme Events*. Edited by: T. E. Downing, D. T. Favis-Mortlock and M. J. Gawith, Environmental Change Unit, **University of Oxford**, 125pp, (ISBN 1-874370-08-7).
- K.3** **Karacostas, T. S., 1995**: Modelling the Effects of Agriculturally Significant Climatic Extremes at the Site and Regional Scales, 51-75. In *Climate Change and Agriculture in Europe: Assessment of Impacts and Adaptations*. Edited by: P. A. Harrison R. E. Butterfield and T. E. Downing, Environmental Change Unit, **University of Oxford**, 411pp, (ISBN 1-874370-09-5).
- K.4** **Karacostas, T.S. and T.E. Downing, 1996**: Heat wave events in a changing climate. 139-155. Chapter 7th in *Climate Change and Extreme Events: Altered risk, socio-economic impacts and policy responses*. Edited by T. E. Downing, A. A. Olsthoorn and R. S. J. Tol, Vrije Universiteit. Amsterdam. The Netherlands.
- K.5** Ferris, R., T. R. Wheeler, R. H. Ellis, P. Hadley, B. Wollenweber, J. R. Porter, J. Schellberg, **T. Karacostas**, M. Papadopoulos, **1998**: Advancements of crop modelling - Effects of high temperature extremes in wheat, 31-51. In: *Climate Change, Climatic Variability and Agriculture in Europe – An Integrated Assessment*. Edited by: P. A. Harrison R. E. Butterfield and T. E. Downing, Environmental Change Unit, **University of Oxford**, 411pp, (ISBN 1-874370-09-5).
- K.6** Gawith, M. J., T. E. Downing and **T. S., Karacostas, 1998**: Heatwaves in a Changing Climate, 279-307. Chapter 11, in *Climate Change and Risk*. Edited by: T. E. Downing, A. A. Olsthoorn and R. S. J. Tol, **Routledge, London and New York**, 407 pp, (ISBN 90-5383-479-6).

I N T E R N A T I O N A L R E V I E W E D P U B L I C A T I O N S

***** **University of Oxford** *****

- E.1** **Karacostas, T. S., and A. A. Flocas, 1991**: The Use of Recent Weather-Years as Analogues of Future Climate in Europe, 17-38. In: *The Effect of Climate Change on Agricultural and Horticultural Potential in EC*. Annual Report, Environmental Change Unit, University of Oxford, 141pp. (ISBN 1-874370-02-8).

- E.2 Karacostas, T. S., and A. A. Flocas, 1992:** The Use of Recent Weather-Years as Analogues of Future Climate in Europe. In *The Effect of Climate Change on Agricultural and Horticultural Potential in Europe*. Interim Report, Environmental Change Unit, University of Oxford, (ISBN 1-874370-02-8).

***** **Vrije Universiteit Amsterdam** *****

- E.3 Karacostas, T. S., and T. E. Downing, 1996:** Heat Waves in a Changing Climate, 139-155. In *Climate Change and Extreme Events: Altered Risk, Socio-Economic Impacts and Policy Responses*. Edited by: T. E. Downing, A. Olsthoorn and R. S. J. Tol, Vrije Universiteit Amsterdam, 309pp (ISBN 90-5383-479-6).

***** **University of East Anglia** *****

- E.4 Barrow, E. M., and T. S. Karacostas, 1996:** The Impact of Greenhouse Gas-Induced Climate Change on the Frequency and Intensity of Heat Waves in Greece. University of East Anglia, 88pp.

***** **World Meteorological Organization** *****

- E.5 World Meteorological Organization, 2003:** Meeting of Experts on Hail Suppression. WMP No. 41, Hail Suppression Research Report No. 6, 188pp.
- E.6 World Meteorological Organization, 2003:** Regional Seminar on Cloud Physics and Weather Modification. WMP No. 42, WMO-TD No. 1227, 213pp.

***** **Springer-Verlag, Berlin Heidelberg** *****

- E.7 Karacostas, T., V. Spiridonov, D. Bampzelis, I. Pytharoulis, G. Karoutsos and C. Sideropoulou, 2012:** Synoptic, Dynamic and Thermodynamic Characteristics of the 10th August 2008 Intensive Storm over North-Central Greece. 145-150. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.8 Karacostas, T., V. Spiridonov, S. Stolaki, I. Pytharoulis and I. Tegoulis, 2012:** A Three-Dimensional Simulation of the 10th August 2008 Storm Occurred over Greece: AgI Seeding of Cell Merger by Using a Cloud Resolving Model. 151-157. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.9 Bampzelis, D., and T. Karacostas, 2012:** Radar Derived Storm Characteristics over Central Greece. 27-33. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.10 Brikas, D., T. Karacostas and I. Pytharoulis, 2012:** Synoptic Aspects of Eastern Mediterranean Explosive Cyclogenesis of 22 January 2004. 35-41. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.11 Karagiannidis, A. F., A. G. Triantafyllou and T. Karacostas, 2012:** The Meteorological Setting of a Particulate Air Pollution Episode during November 2009, in Western Macedonia Industrial Area, Greece. 159-167. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.12 Sfiri, E., and T. Karacostas, 2012:** Hailstorm Characteristics over the Area of Central Macedonia during the Period 1998-2008. 277-383. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.13 Tsopouridis, L., I. Pytharoulis, T. Karacostas, P. Zanis and I. Tegoulis, 2012:** Numerical Study of an Intense Episode of Vardaris Wind. 325-332. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmis and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin

Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.

- E.14** Tympanidis, K., D. Bampzelis, **T. Karacostas** and E. Chatzi, **2012**: A Comparison of Storm Characteristics between Mountainous and Plain Areas within Central Macedonia. 333-339. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmig and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.15** Pakalidou, N., E. Katragkou, A. Poupkou, P. Zanis and **T. Karacostas**, **2012**: Decadal Analysis of Heat-Wave Events in Thessaloniki and Investigation of Impacts on PM₁₀. 663-669. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 1*. Edited by: C. G. Helmig and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.16** Akritidis, A., P. Zanis, E. Katragkou, I. Tegoulis, A. Poupkou, K. Markakis, **T. Karacostas**, I. Pytharoulis, **2012**: Air quality simulations over Europe for the period 1996-2006 with emphasis on tropospheric ozone. 849-856. In: *Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 2*. Edited by: C. G. Helmig and P. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 839pp. ISBN 978-3-642-29172-5, ISBN 978-3-642-29172-2 (eBook), DOI 10.1007/978-3-642-29172-2.
- E.17** **Καρακώστας Θ.**, Δ. Μπρίκας και Ι. Πυθαρούλης, **2014**: Μετεωρολογική «βόμβα»: δυναμικά χαρακτηριστικά. Τιμητικός Τόμος για τον Καθηγητή Απόστολο Φλόκα. Χέλμης Κ. και Π. Νάστος (συντακτική επιτροπή), Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, Εκδόσεις Ζήτη, 67-74. ISBN: 978-960-466-129-9
- E.18** **Karacostas, T. S.**, I. Pytharoulis, I. Tegoulis, D. Bampzelis, S. Kartsios, S. Kotsopoulos, P. Zanis, E. Katragkou and K. Tympanidis, **2017**: The DAPHNE Conceptual Model for Designing a Precipitation Enhancement Project in Thessaly, Greece. 287-294. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.19** Krestenitis, Y., I. Pytharoulis, **T. S. Karacostas**, Y. Androulidakis, C. Makris, K. Kombiadou, I. Tegoulis, V. Baltikas, S. Kotsopoulos and S. Kartsios, **2017**: Severe Weather Events and Sea Level Variability over the Mediterranean Sea: The WaveForUs Operational Platform. 63-68. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.20** Pytharoulis, I., I. T. Matsangouras, I. Tegoulis, S. Kotsopoulos, **T. S. Karacostas** and P.T. Nastos, **2017**: Numerical Study of the Medicane of November 2014. 115-122. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.21** Kartsios, S., **T. S. Karacostas**, I. Pytharoulis and A.P. Dimitrakopoulos, **2017**: The Role of Heat Extinction Depth Concept to Fire Behavior: An Application to WRF-SFIRE Model. 137-142. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.22** Tegoulis, I., S. Kartsios, I. Pytharoulis, S. Kotsopoulos and **T. S. Karacostas**, **2017**: The Influence of WRF Parameterisation Schemes on High Resolution Simulations over Greece. 3-8. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.23** Grimpylakos, G., K. Albanakis and **T. S. Karacostas**, **2017**: Watershed Size, an Alternative or a Misguided Parameter for River's Waterpower? Implementation in Macedonia, Greece. 295-302. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric

Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.

- E.24** Bampzelis D., and **T. S. Karacostas**, **2017**: Diurnal Distribution of Storm Characteristics in Central Macedonia during the Warm Season of the Year Using a C-Band Weather Radar. 317-322. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.25** Tympanidis, K., **T. S. Karacostas** and D. Bampzelis, **2017**: Rain Enhancement Feasibility Potential of Orographic Clouds over Northern Greece. 323-328. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.26** Douka, M., **T. S. Karacostas**, E. Katragkou and C. Anagnostopoulou, **2017**: Annual and Seasonal Extreme Precipitation Probability Distributions at Thessaloniki Based Upon Hourly Values. 521-528. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.27** Tsikerdekis, A., P. Zanis, A.L. Steiner, F. Solmon, V. Amiridis, E. Marinou, E. Katragkou and **T. S. Karacostas**, **2017**: Simulated Dust Over the Sahara and Mediterranean with a Regional Climate Model (RegCM4). 615-620. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.28** Dagkli V., and **T. S. Karacostas**, **2017**: Event-Based Climatology and Synoptic Conditions Associated with Fog at the “Macedonia” Airport. 635-642. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.29** Vavritsa, M., E. Katragkou, S. Kartsios, I. Pytharoulis and **T. S. Karacostas**, **2017**: Sensitivity Study of Cloud-Radiation Feedbacks in a Regional Climate Model Simulation over Europe. 677-682. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.30** Pavlidis, V., E. Katragkou, P. Zanis and **T. S. Karacostas**, **2017**: Evaluation of Summer Temperature and Precipitation of EURO-CORDEX Regional Climate Simulations. 707-712. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
- E.31** Katragkou, E., I. Gkotovou, S. Kartsios, V. Pavlidis, K. Tsigaridis, M. Trail, L. Nazarenko and **T. S. Karacostas**, **2017**: AUTH Regional Climate Model Contributions to EURO-CORDEX. 741-746. In: *Perspectives on Atmospheric Sciences*, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0

PUBLICATIONS IN SCIENTIFIC JOURNALS

1. Livadas, G., **T. S. Karacostas**, 1975: Sunshine Duration in Athens - Greece (I). *Sci. Annals, Fac. Phys. & Mathem.*, University of Thessaloniki, Vol. 15, 23-32. // and “*Meteorologika*”, No. 47, Institute of Meteorology and Climatology, University of Thessaloniki.

2. Livadas, G., **T. S. Karacostas**, 1977: Sunshine Duration in Athens - Greece (II). *Sci. Annals, Fac. Phys. & Mathem.*, University of Thessaloniki, Vol. 17, No. 1, 27-39.
3. Livadas, G., **T. S. Karacostas**, 1977: Sunshine Duration in Athens - Greece (III). *Sci. Annals, Fac. Phys. & Mathem.*, University of Thessaloniki, Vol. 17, No. 1, 41-57 // and "*Meteorologika*", No. 68, Institute of Meteorology and Climatology, University of Thessaloniki.
4. Marwitz, J. D., R. E. Stewart, **T. S. Karacostas**, and B. E. Martner, 1978: Cloud Physics studies in SCPP during 1977-1978. *Report No. AS-121*. Department of Atmospheric Science, University of Wyoming, U.S.A., pp 202.
5. Marwitz, J. D., R. E. Stewart, **T. S. Karacostas**, and B. E. Martner, 1979: Cloud Physics Studies in SCPP during 1978-1979. *Report No. AS-123*. Department of Atmospheric Science, University of Wyoming, U.S.A., pp 154.
6. **Karacostas, T. S.**, J. D. Marwitz, 1980: Turbulent Kinetic Energy Budgets Over Mountainous Terrain. *J. Appl. Meteorol.*, American Meteorological Society, U.S.A., Vol. 19, 163-174.
7. **Karacostas, T. S.**, A. A. Flocas, 1983: The Development of the "Bomb" Over the Mediterranean Area. *La Meteorologie*, No 33, 351-358.
8. Flocas, A. A., **T. S. Karacostas**, 1983: A Memorable Rainfall Episode Over Thessaly - Greece. *La Meteorologie*, No 33, 123-131.
9. Maheras, P., A. A. Flocas, and **T. S. Karacostas**, 1984: La Structure de la Basse Troposphere Pendant le Vent Vardaris a Thessaloniki. *Zbornik*, No 10, Meteoroloskih i Hidroloskih Radova, Beograd, YUGOSLAVIA, 240-242.
10. Flocas, A. A., P. Maheras, and **T. Karacostas**, 1984: A possible orographic trigger. The extremely heavy rainfall in NW Macedonia in November 1979. *Zbornik* No 10, YUGOSLAVIA, 223-226.
11. **Karacostas, T. S.**, C. Ganniaris-Papageorgiou, 1985: The Effect of Mountainous Topography Upon the Convective Clouds Development During the National Hail Suppression Program in Greece. *Zbornik*, No 11, Meteoroloskih i Hidroloskih Radova, Beograd, YUGOSLAVIA, 55-58.
12. Flocas, A. A., **T. S. Karacostas**, and P. Ch. Maheras, 1985: The Extremely Heavy Rainfall in NW Macedonia in November 1979. *J. of Meteorology*, UK, Vol. 10, 258-264.
13. Flueck, J. A., M. E. Solak, and **T. S. Karacostas**, 1986: Results of an Exploratory Experiment Within the Greek National Hail Suppression Program. *J. Wea. Mod.*, U.S.A., Vol. 18, No. 1, 57-63.
14. Dalezios, N. R., M. V. Sioutas, and **T. S. Karacostas**, 1991: A Systematic Hailpad Calibration Procedure for Operational Hail Suppression in Greece. *Meteorol. Atmos. Phys.*, 45, 101-111.
15. Dalezios, N. R., Z. G. Papazafiriou, D. M. Papamichail, and **T. S. Karacostas**, 1991: Drought Assessment for the Potential of Precipitation Enhancement in Northern Greece. *Theor. Appl. Climatol.*, 44, 2, 75-88.
16. **Karacostas, T. S.**, 1991: Turbulent Kinetic Energy Budgets Over a Two-Dimensional Mountainous Range. *Rivista*, Vol. LI, No. 3-4, 193-202.
17. **Karacostas, T. S.**, and Olga K. Kakaliagou, 1991: On the Choice of an Adequate Vertical Interpolation Scheme of Meteorological Variable. *Meteorol. Rdsch.*, 44, 5, 147-149.
18. **Karacostas, T. S.**, 1991: Some Characteristics of Convective Cells in the Greek National Hail Suppression Program. *Geofizika*, 8, 43-50.
19. **Karacostas, T. S.**, and Olga K. Kakaliagou, 1991: Objective Analysis Schemes and their Applications to Hail Measurements Network in the Greek NHSP. *Geofizika*, 8, 3-12.
20. **Karacostas, T. S.**, O. K. Kakaliagou and E. A. Flocas, 1991: An Objective Evaluation of Two Instability Indices Associated with Forecasting Convective Storms Over North-Central Greece. *Geofizika*, 8, 51-60.
21. **Karacostas, T. S.**, 1993: Less Annees Exceptionnelles Sur L' Europe Meridionale. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 701-712.
22. **Karacostas, T. S.**, Pennas, P. J., and A. A. Flocas., 1993: Etude Comparative Des Variations De Temperatures Sur Les Cotes Septentrionales Meditteranneenes. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 413-422.
23. Rizou, Ch., and **Karacostas, T. S.**, 1993: Etude Des Precipitations Engendrees Par Les Systemes Depressionnaires D' Origine De SW Sur Le Territoire Hellenique. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 351-364.

24. Flocas, E. A., **T. S. Karacostas**, B. D. Giles and A. A. Flocas, 1995: Considerations on the Dynamics of a Cold Spell over Greece. *Gmeteorol., Z., N.F.* 4, 222-228.
25. Flocas, H. A. and **T. S. Karacostas**, 1996: Cyclogenesis over the Aegean Sea: identification and synoptic categories. *Meteorologic Applications*, 3, 53-61.
26. **Karacostas T.S.** and Downing TE, 1996: Heat wave events in a changing climate. In Downing TE, Olsthroom AA and Tol RSJ (Eds): *Climate Change and Extreme Events*, 139-156.
27. Ζαρίφης, Ι. Ι., Α. Λ. Μπαλάσκας, Β. Ε. Τσαγκάρης, **Θ. Σ. Καρακώστας**, Μ. Κ. Παπαδόπουλος και Χ. Ν. Χαλκίδης, 1998: Περιβάλλον και Στεφανιαία Νόσος. Οι Ταχείες Μεταβολές της Ατμοσφαιρικής Πίεσης και η Σχέση τους με το Οξύ Έμφραγμα Μυοκαρδίου και την Ασταθή Στεθάγχη. *Ελληνική Καρδιολογική Επιθεώρηση - Hellenic Journal of Cardiology*. Volume 39, Issue 3, Pages 231-238.
28. Styliadis, L., J. Zarifis, A. Balaskas, G. Kottas, V. Tsagaris, **T. Karacostas**, C. C. Chalkidia, 1998: P024: Acute myocardial ischaemia in hypertensive patients. Is there any relation with atmospheric pressure fluctuation? *American Journal of Hypertension*. Vol. 11, No. 4, Issue S3, p. 216A. [https://doi.org/10.1016/S0895-7061\(97\)91508-9](https://doi.org/10.1016/S0895-7061(97)91508-9).
29. List, R., K. R. Gabriel, B. A. Silverman, Z. Levin and **T. S. Karacostas**, 1998: The Rain Enhancement Experiment in Puglia, Italy: Statistical Evaluation. *J. of Appl. Meteorol.*, Vol. 38, No. 3, 281-289.
30. Maheras, P., I. Patrikas, **T. Karacostas** and C. Anagnostopoulou, 2000: Automatic classification of circulation types in Greece: methodology, description, frequency, variability and trend analysis. *Theor. Appl. Climatol.*, 67, 205-223.
31. Flocas, H. A., P. Maheras, **T. Karacostas**, I. Patrikas, and C. Anagnostopoulou, 2001: A 40-year climatological study of relative vorticity distribution over the Mediterranean. *Intern. J. Climatol.*, 21, 1759-1778.
32. Anagnostopoulou, C., P. Maheras, **T. Karacostas** and M. Vafiadis, 2002: Spatial and Temporal Analysis of Dry Spells in Greece. *Theor. Appl. Climatol.* 74, 77-91.
33. Spanos, S. I., Maheras P., **Karacostas T.**, Pennas P., 2003: Objective Climatology of 500hPa Cyclones in Central east Mediterranean region during Warm-Dry period of the year. *Theoretical and Applied Climatology*, 75, 167-178.
34. Nicolaides K, Michaelides S, **Karacostas T.**, 2004: Spatial Distribution of Some Dynamic Parameters during the Evolution of Selected Depressions over the Area of Cyprus. *International Journal of Climatology*, 24, 1829-1844.
35. Michaelides S, Nicolaides K, **Karacostas T.**, 2004: Statistical Characteristics of the Cold Season Depressions over the Area of Cyprus. *Meteorological Journal*, 7, 61-66.
36. Brikas D.P., **Karacostas T**, Pennas PJ and Flocas AA, 2006: The role of the subtropical jet stream during heat wave events over north-central Greece. *Meteorology and Atmospheric Physics*, 94, 219-233.
37. Nicolaides KA, Michaelides SC and **Karacostas T**, 2006: Synoptic and dynamic characteristics of selected deep depressions over Cyprus. *Advances in Geosciences*, 7, 175-180.
38. Foris DV, **Karacostas TS**, Flocas AA and Makrogiannis TI, 2006: Hailstorm in the region of Central Macedonia, Greece: A kinematic study. *Meteorologische Zeitschrift*, 15, 3, 317-326.
39. Foris, D. V., **T. S. Karacostas**, A. A. Flocas and T. I. Makrogiannis, 2006: Kinematic characteristics of hailstorms in northern Greece. *Advances in Geosciences*, 7, 147-151.
40. Nicolaides KA, G. Photiou, K. Savvidou, A. Orphanou, S. C. Michaelides, **T. S. Karakostas**, D. Charalambous and C. Kannaouros, 2009: The impact of hail storms on the agricultural economy of Cyprus and their characteristics. *Advances in Geosciences*, 17, 99-103.
41. Karagiannidis, A., **T. Karacostas**, P. Maheras and T. Makrogiannis, 2009: Trends and seasonality of extreme precipitation characteristics related to mid-latitude cyclones in Europe. *Advances in Geosciences*, 20, 39-43.
42. Varfi, M.S., **T. S. Karacostas**, T. J. Makrogiannis and A.A. Flocas, 2009: Characteristics of the extreme warm and cold days over Greece. *Advances in Geosciences*, 20, 45-50.
43. Stolaki S. N., Kazadzis S. A., Foris D. V. and **Karacostas Th. S.**, 2009: Fog characteristics at the airport of Thessaloniki, Greece, *Nat. Hazards Earth Syst. Sci.*, 9, 1541-1549.

44. Akritidis D., P. Zanis, I. Pytharoulis, A. Mavrakis and **Th. Karacostas**, 2010: A deep stratospheric intrusion event down to the earth's surface of the megacity of Athens, *Meteorology and Atmospheric Physics*, 109, 9-18, DOI 10.1007/s00703-010-0096-6.
45. Karagiannidis, A.F., **Karacostas, T.**, Maheras, P., Makrogiannis, T., 2011: Climatological aspects of extreme precipitation in Europe, related to mid-latitude cyclonic systems. *Theoretical and Applied Climatology*, 1-10.
46. Stolaki, S., J. Pytharoulis and **T. Karacostas**, 2011: A Study of Fog Characteristics Using a Coupled WRF–COBEL Model Over Thessaloniki Airport, Greece. *Pure Appl. Geophys.*, Springer Basel AG, DOI 10.1007/s00024-011-0393-0.
47. Pytharoulis I., Ch. Feidas and **T. Karacostas**, 2012: Study of lightning activity with the use of high-resolution simulations. *Geographies*, 20, 51-78. (in Greek, with English abstract).
48. Zanis, P., C. Ntogras, A. Zakey, I. Pytharoulis and **Th. Karacostas**, 2012: Regional climate feedback of anthropogenic aerosols over Europe using RegCM3. *Climate Research*, 52, 267-278. DOI: 10.3354/cr01070.
49. Akritidis, D., P. Zanis, E. Katragkou, M. G. Schultz, I. Tegoulis, A. Poupkou, K. Markakis, I. Pytharoulis, and **Th. Karacostas**, 2013: Evaluating the impact of chemical boundary conditions on near surface ozone in regional climate-air quality simulations over Europe. *Atmospheric Research*, 134, 116-130. DOI: 10.1016/j.atmosres.2013.07.021
50. Vautard, R., A. Gobiet, D. Jacob, M. Belda, A. Colette, M. Déqué, J. Fernández, M. García-Díez, K. Goergen, Ivan Güttler, T. Halenka, **T. Karacostas**, E. Katragkou, K. Keuler, S. Kotlarski, S. Mayer, E. van Meijgaard, G. Nikulin, M. Patarčić, J. Scinocca, S. Sobolowski, M. Suklitsch, C. Teichmann, K. Warrach-Sagi, V. Wulfmeyer, P. Yiou, 2013: The simulation of European heat waves from an ensemble of regional climate models within the EURO-CORDEX project. *Climate Dynamics*, 41, Issue 9-10, 2555-2575, DOI: 10.1007/s00382-013-1714-z.
51. Karagiannidis, A., A. Triantafyllou and **T. Karacostas**, 2013: Analyzing the basic meteorological aspects of a particulate air pollution episode over the industrial area of Northwestern Greece during the November 2009. *Global Nest Journal*, vol. 15, Issue 2. DOI: <https://doi.org/10.30955/gnj.001015>
52. Akritidis, D., P. Zanis, I. Pytharoulis, and **T. Karacostas**, 2014: Near-surface ozone trends over Europe in RegCM3/CAMx simulations for the time period 1996–2006. *Atmospheric Environment*, 97, 6–18. DOI: 10.1016/j.atmosenv.2014.08.002
53. Poupkou, A., K. Markakis, N. Liora, T. M. Giannaros, P. Zanis, U. Im, N. Daskalakis, S. Myriokefalitakis, J. W. Kaiser, D. Melas, M. Kanakidou, **T. Karacostas**, and C. Zerefos, 2014: A modeling study of the impact of the 2007 Greek forest fires on the gaseous pollutant levels in the Eastern Mediterranean. *Atmospheric Research*, 148, 1-17.
54. Tegoulis, I., I. Pytharoulis, D. Bampzelis and **T. Karacostas**, 2014: Evaluation of numerical weather predictions performed in the context of the project DAPHNE. *Geophysical Research Abstracts*, 16, EGU2014-12698.
55. Spiridonov, V., **Karacostas, T.**, Bampzelis, D., Pytharoulis, I., 2015: Numerical simulation of airborne cloud seeding over Greece, using a convective cloud model. *Asia-Pacific Journal of Atmospheric Sciences*, 51 (1), pp. 11-27. DOI: 10.1007/s13143-014-0056-z.
56. Katragkou, E., García-Díez, M., Vautard, R., Sobolowski, S., Zanis, P., Alexandri, G., Cardoso, R.M., Colette, A., Fernandez, J., Gobiet, A., Goergen, K., **Karacostas, T.**, Knist, S., Mayer, S., Soares, P.M.M., Pytharoulis, I., Tegoulis, I., Tsikerdekis, A., Jacob, D., 2015: Regional climate hindcast simulations within EURO-CORDEX: Evaluation of a WRF multi-physics ensemble. *Geoscientific Model Development*, 8 (3), pp. 603-618. <https://doi.org/10.5194/gmd-8-603-2015>
57. Pytharoulis, I., Kotsopoulos, S., Tegoulis, I., Kartsios, S., Bampzelis, D., **Karacostas, T.**, 2016: Numerical modeling of an intense precipitation event and its associated lightning activity over northern Greece. *Atmospheric Research*, 169, pp. 523-538. <https://doi.org/10.1016/j.atmosres.2015.06.019>
58. **Karacostas, T.**, Spiridonov, V., Bampzelis, D., Pytharoulis, I., Tegoulis, I., Tympanidis, K., 2016: Analysis and numerical simulation of a real cell merger using a three-dimensional cloud resolving model. *Atmospheric Research*, 169, pp. 547-555. <https://doi.org/10.1016/j.atmosres.2015.09.011>

59. Tsikerdekis, A., Zanis, P., Steiner, A.L., Solmon, F., Amiridis, V., Marinou, E., Katragkou, E., **Karacostas, T.**, Foret, G., 2017: Impact of dust size parameterizations on aerosol burden and radiative forcing in RegCM4. *Atmospheric Chemistry and Physics*, 17 (2), pp. 769-791. DOI: 10.5194/acp-17-769-2017.
60. Michaelides, S., **Karacostas, T.**, Sánchez, J.L., Retalis, A., Pytharoulis, I., Homar, V., Romero, R., Zanis, P., Giannakopoulos, C., Bühl, J., Ansmann, A., Merino, A., Melcón, P., Lagouvardos, K., Kotroni, V., Bruggeman, A., López-Moreno, J.I., Berthet, C., Katragkou, E., Tymvios, F., Hadjimitsis, D.G., Mamouri, R.-E., Nisantzi, A., 2018: Reviews and perspectives of high impact atmospheric processes in the Mediterranean. *Atmospheric Research*, 208, pp. 4-44. <https://doi.org/10.1016/j.atmosres.2017.11.022>
61. **Karacostas, T.**, Kartsios, S., Pytharoulis, I., Tegoulis, I., Bampzelis, D., 2018: Observations and modelling of the characteristics of convective activity related to a potential rain enhancement program in central Greece. *Atmospheric Research*. 208, pp. 218-228. <https://doi.org/10.1016/j.atmosres.2017.08.014>
62. Douka, M., **Karacostas, T.**, 2018: Statistical analyses of extreme rainfall events in Thessaloniki, Greece. *Atmospheric Research*, 208, pp. 60-77. <https://doi.org/10.1016/j.atmosres.2017.08.025>
63. Michaelides, S., **Karacostas, T.**, 2018: High impact atmospheric processes in the Mediterranean. *Atmospheric Research*. 208, pp. 1-3.
64. Patsika, C., and **T. S. Karacostas**, 2018: Modeling of precipitation based upon the upper-air synoptic circulation types. *Acta Geobalcanica*, Vol. 4, Issue 2, 57-65, DOI: <https://doi.org/10.18509/AGB.2018.09>, UDC:551.578.1:551.506.3(495.6)
65. Douka, M., and **T. S. Karacostas**, 2018: Statistical characteristics of extreme precipitation events at Thessaloniki, based upon observed and modelled values. *Acta Geobalcanica*, Vol. 4, Issue 2, 49-56, DOI: <https://doi.org/10.18509/AGB.2018.06> UDC:551.577:519.213]:004.942(495.622)
66. Pytharoulis, I., Kartsios, S., Tegoulis, I., Feidas, H., Miglietta, M.M., Matsangouras, I., **Karacostas, T.**, 2018: Sensitivity of a Mediterranean Tropical-Like Cyclone to Physical Parameterizations. *Atmosphere*, 2018, 9, 436. <https://doi.org/10.3390/atmos9110436>
67. Grimpylakos, G., **Karacostas, T.**, and Albanakis, K., 2013: Spatial and temporal distribution of rainfall and temperature in Macedonia, Greece, over a thirty year period, using GIS. *Bulletin of the Geological Society of Greece*, 47(3), 1458-1471. doi:<http://dx.doi.org/10.12681/bgsg.10984>
68. Tsikerdekis, A., Zanis, P., Georgoulis, A.K., (...), **Karacostas, T.**, Solmon, F., 2019: Direct and semi-direct radiative effect of North African dust in present and future regional climate simulations. *Climate Dynamics*. 53(7-8), pp. 4311-4336.
69. **Karacostas, T. S.**, 2019: The potentiality of the “DAPHNE” rain enhancement project in Thessaly, Greece. *Acta Geobalcanica*, 5-2, 47-55, <https://doi.org/10.18509/AGB.2019.07>, UDC: 551.509.32:004.455]:551.584(495.3).
70. Pavlidis, V., Katragkou, E., Prein, A., (...), Zanis, P., **Karacostas, T.**, 2019: Investigating the sensitivity to resolving aerosol interactions in downscaling regional model experiments with WRFv3.8.1 over Europe. *Geoscientific Model Development*. 13(6), pp. 2511-2532.
71. Kartsios, S., **Karacostas, T.**, Pytharoulis, I., Dimitrakopoulos, A.P., 2021: Numerical investigation of atmosphere-fire interactions during high-impact wildland fire events in Greece. *Atmospheric Research*. 247,105253
72. Kampouri A., V. Amiridis, S. Solomos, A. Gialitaki, E. Marinou, C. Spyrou, A.K. Georgoulis, D. Akritidis, N. Papagiannopoulos, L. Mona, S. Scollo, M. Tschla, I. Tsikoudi, I. Pytharoulis, **T. Karacostas**, P. Zanis, 2021: Investigation of Volcanic Emissions in the Mediterranean: “The Etna–Antikythera Connection”. *Atmosphere*, 12, 40. DOI: 10.3390/atmos12010040

PUBLICATIONS IN INTERNATIONAL SCIENTIFIC CONFERENCES

1. **Karacostas, T. S.**, J. D. Marwitz, 1979: Turbulent Diffusion Over Mountainous Terrain. *Fourth Symposium on Turbulence, Diffusion and Air Pollution*, American Meteorological Society, Reno, Nevada, U.S.A., 241-248.
2. **Karacostas, T. S.**, J. D. Marwitz, 1979: Turbulent Diffusion in Storms Over the Sierra Nevada Mountains. *Seventh Conference on Inadvertent and Planned Weather Modification*, American Meteorological Society and Canadian Meteorological Society, Banff, Alberta, CANADA, 49-50.
3. Auer, A. H., **T. S. Karacostas**, T. Krauss, J. White, B. Boe, and M. Bradford, 1980: An examination of the Synoptic Events, Atmospheric Water Budget, and Mesoscale Influences Associated with the Front Range Blizzard of 20-21 November 1979. *Eighth Conference on Weather Forecasting and Analysis*, American Meteorological Society, Denver, Colorado, U.S.A., 29-35.
4. **Karacostas, T. S.**, J. D. Marwitz, 1980: Turbulent Diffusion Studies Over the Sierra Nevada Mountains. *Third World Meteorological Organization Scientific Conference on Weather Modification*, Clermont-Ferrand, FRANCE, 433-438. (INVITED PAPER).
5. **Karacostas, T. S.**, 1981: Diffusion Studies in Light Turbulent Conditions. *Sierra Cooperative Pilot Project (SCPP) Analysis Conference*, Denver, Colorado, U.S.A., 25-27.
6. **Karacostas, T. S.**, 1981: Diffusion Studies in Light Turbulent Conditions. *Eighth Conference on Inadvertent and Planned Weather Modification*, American Meteorological Society, Reno, Nevada, U.S.A., 74-75.
7. **Karacostas, T. S.**, A. A. Flocas, 1983: The Development of the "Bomb" Over the Mediterranean Area. *Conferenc. sur le Climat Mediterranee et les Ressources en Eau*, Marseille, FRANCE.
8. Flocas, A. A., **T. S. Karacostas**, 1983: A Memorable Rainfall Episode Over Thessaly - Greece. *Conference sur le Climat Mediterranee et les Ressources en Eau*, Marseille, FRANCE.
9. **Karacostas, T. S.**, 1984: Turbulent Kinetic Energy Budgets Over a Two-Dimensional Mountainous Range. *Eighteenth International Conference for Alpine Meteorology*, Zbornik, No 10, Meteoroloskih i Hidroloskih Radova, Opatija, YUGOSLAVIA, 236-239.
10. Maheras, P., A. A. Flocas, and **T. S. Karacostas**, 1984: La Structure de la Basse Troposphere Pendant le Vent Vardaris a Thessaloniki. *Eighteenth International Conference for Alpine Meteorology*, Opatija, YUGOSLAVIA, 240-242.
11. Flocas, A. A., P. Maheras, and **T. S. Karacostas**, 1984: A Possible Orographic Trigger? The Extremely Heavy Rainfall in NW Macedonia in November 1979. *Eighteenth International Conference for Alpine Meteorology*, Opatija, YUGOSLAVIA, 223-226.
12. **Karacostas, T. S.**, 1984: The Design of the Greek National Hail Suppression Program. *Ninth Conference on Weather Modification*, American Meteorological Society, Park City, Utah, U.S.A.
13. **Karacostas, T. S.**, C. Ganniaris-Papageorgiou, 1985: The Effect of Mountainous Topography Upon the Convective Clouds Development During the National Hail Suppression Program in Greece. *18th International Conference for Alpine Meteorology*, Opatija, YUGOSLAVIA, 55-58.
14. **Karacostas, T. S.**, 1985: The structure of Orographic Airflow Over a Three-Dimensional Mountain. *12th International Conference on Carpathian Meteorology*. Beograd, YUGOSLAVIA, 7-9.
15. Γαννιάρης-Παπαγεωργίου, Κ., και **Θ. Σ. Καρακώστας**, 1985: Η αντιμετώπιση των Ζημιών του Χαλαζιού στη Γεωργική Παραγωγή στο Χώρο της Βόρειας Ελλάδας. *Πρώτο Διεθνές Δενδροκομικό Συνέδριο*, Βέροια, ΕΛΛΑΔΑ.
16. Flueck, J. A., M. E. Solak, R. B. Allan, and **T.S. Karacostas**, 1986: An Exploratory Analysis of the National Hail Suppression Program in Greece. *10th Conference on Planned and Inadvertent Weather Modification*. American Meteorological Society, Arlington, Va, U.S.A., 124-127.
17. **Karacostas, T. S.**, A. Flocas, and C. Ganniaris-Papageorgiou, 1986: An Examination on the Dynamic and Synoptic Events, Associated with a Hail Damaging Case Study. *19th International Conference on Alpine Meteorology*, Rauris, AUSTRIA, 132-137.
18. **Καρακώστας, Θ. Σ., Ε. Α. Φλόκα και Ο.Κ. Κακαλιάγκου**, 1988: Αξιολόγηση των Μεθόδων Υπολογισμού των Συντελεστών της Διπαραμετρικής Κατανομής WEIBULL. *Τρίτο Εθνικό Συνέδριο για τις Ήπιες Μορφές Ενέργειας*. Τόμος Β, 651-658, Θεσσαλονίκη, ΕΛΛΑΔΑ.

19. **Καρακώστας, Θ. Σ.**, 1989: Οικολογική Επίδραση του AgI κατά τη Χρήση του στην Τροποποίηση του Καιρού. *Πανελλήνιο Επιστημονικό Συνέδριο Προστασίας Περιβάλλοντος και Γεωργικής Παραγωγής*. Γεωτεχνικό Επιμελητήριο Ελλάδας, Θεσσαλονίκη, ΕΛΛΑΔΑ.
20. **Karacostas, T. S.**, 1989: The Greek National Hail Suppression Program: Design and Conduct of the Experiment. *Fifth WMO Scientific Conference on Weather Modification and Applied Cloud Physics*. Beijing, CHINA, 605-608.
21. **Karacostas, T. S.**, and Olga K. Kakaliagou, 1990: On the Choice of an Adequate Vertical Interpolation Scheme of Meteorological Variable. *21st International Conference for Alpine Meteorology*. Engelberg, SWITZERLAND, 72-75.
22. **Karacostas, T. S.**, 1990: Orographic Influence on the Dynamic Characteristics of the Airflow. *21st International Conference for Alpine Meteorology*, Engelberg, SWITZERLAND, 168-171.
23. **Karacostas, T. S.**, 1990: The Development of an Index as an Aid in Forecasting Mesoscale Convective Storms Over North-Central Greece. *21st International Conference for Alpine Meteorology*, Engelberg, SWITZERLAND, 227-230.
24. **Karacostas, T. S.**, 1990: Hail Suppression in Greece. *La Modifica del Tempo: Aspetti Scientifici ed Operativi. Seminario Internazionale*. Palermo, ITALY, 237-256.
25. **Karacostas, T. S.**, 1991: Some Characteristics of Convective Cells in the Greek National Hail Suppression Program. *Second Yugoslav Conference on Weather Modification*, Mavrovo, YUGOSLAVIA, 274-283.
26. **Karacostas, T. S.**, and Olga, K. Kakaliagou, 1991: Objective Analysis Schemes and their Applications to Hail Measurements Network in the Greek NHSP. *Second Yugoslav Conference on Weather Modification*. Mavrovo, YUGOSLAVIA, 219-230.
27. **Karacostas, T. S.**, Olga, K. Kakaliagou, and E. A. Flocas, 1991: An Objective Evaluation of Two Instability Indices Associated with Forecasting Convective Storms Over North-Central Greece. *Second Yugoslav Conference on Weather Modification*. Mavrovo, YUGOSLAVIA, 15-24,
28. Flocas, A. A., **T. S. Karacostas**, and P. J. Pennas, 1991: Annual and Seasonal Fluctuations of Sunshine Duration at Athens. *Annales Geophysicae*, XVI General Assembly. European Geophysical Society, Wiesbaden, GERMANY, 136.
29. Mimikou, M., and **T. S. Karacostas**, 1991: The Radar Hydrology Programme in Greece: Initiation and Perspectives. *International Conference on Advances in Radar Hydrology*, Lisbon, PORTUGAL, 62-72.
30. **Καρακώστας, Θ.**, A. Φλόκας, E. Φλόκα, O. Κακαλιάγκου και X. Ρίζου, 1992: Μελέτη των Συνοπτικών Καταστάσεων στην Περιοχή της Ανατολικής Μεσογείου. *1ο Πανελλήνιο Συνέδριο Μετεωρολογίας - Κλιματολογίας - Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 469-477.
31. **Καρακώστας, Θ.**, M. B. Σιούτας, 1992: Σχέση Υετίσμου Ύδατος και Ύψους Βροχόπτωσης Θερινών Καταιγίδων στην Περιοχή της Κεντρικής Μακεδονίας. *1ο Πανελλήνιο Συνέδριο Μετεωρολογίας - Κλιματολογίας - Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 503-507.
32. **Karacostas, T. S.**, and A. A. Flocas, 1991: The Use of Recent Weather-Years as Analogues of Future Climate in Europe. *Workshop on the Effect of Climate Change on Agricultural and Horticultural Potential in EC*. Birmingham, UNITED KINGDOM.
33. **Karacostas, T. S.**, A. Flocas, E. Flocas, O. Kakaliagou and C. Rizou, 1992: On the Study of the Synoptic Situations Over the Area of Eastern Mediterranean. *First Greek Scientific Conference on Meteorology - Climatology - Atmospheric Physics*, Thessaloniki, GREECE, 469-477.
34. **Karacostas, T. S.**, M. V. Sioutas, 1992: Analytical Expression Between Precipitable Water and Rainfall Height Over Central Macedonia During Summertime Storms. *First Greek Scientific Conference on Meteorology - Climatology-Atmospheric Physics*, Thessaloniki, GREECE, 503-507.
35. **Karacostas, T. S.**, P. Maheras and S. Guika, 1992: Climatic Variations in the Eastern Mediterranean and their Connection with Changes in the General Circulation. *The Yale Mintz Memorial Symposium on Climate and Climate Change*, 18-20, Jerusalem, ISRAEL.
36. **Karacostas, T. S.**, 1992: An Experimental Study of the Turbulent Kinetic Energy Structure Over a Stable Mountainous Boundary Layer. *XXII International Conference on Alpine Meteorology*, Toulouse, FRANCE, 41-45.

37. Pennas, P. J., and **Karacostas, T. S.**, 1992: Daily Range of Air Temperature at Olympous Mountain. *XXII International Conference on Alpine Meteorology*, Toulouse, FRANCE, 425-429.
38. **Karacostas, T. S.**, and A. A. Flocas, 1992: The Analusis of Climatic Extremes of Agricultural Importance in Europe. *Workshop on the Effect of Climate Change on Agricultural and Horticultural Potential in EC*. Foulum, DENMARK.
39. **Karacostas, T. S.**, 1993: Less Annees Exceptionnelles Sur L' Europe Meridionale. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 701-712.
40. **Karacostas, T. S.**, Pennas, P. J., and A. A. Flocas., 1993: Etude Comparative Des Variations De Temperatures Sur Les Cotes Septenttrionales Meditteraneeenes. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 413-422.
41. Rizou, Ch., and **Karacostas, T. S.**, 1993: Etude Des Precipitations Engendrees Par Les Systemes Depressionnaires D' Origine De SW Sur Le Territoire Hellenique. *6o Colloque International de Climatologie*, Thessaloniki, GRECE, Vol. 6, 351-364..
42. **Karacostas, T. S.**, 1993: Computer Uses for Identification of Extreme Weather Years. *International Workshop on Computer Models in Mediterranean Crop Production*, Madrid, SPAIN.
43. **Karacostas, T. S.**, A. A. Flocas and P. J. Pennas, 1993: The Impact of Greenhouse Gas-Induced Climatic Scenarios upon the Thessaly Area. 3d Symposium of Trikala Studies, Trikala, GREECE.
44. Flocas, A. A., **Karacostas, T. S.**, and P. J. Pennas, 1993: Preciritation Variations over the Northwestern Thessaly. 3d Symposium of Trikala Studies, Trikala, GREECE.
45. Pennas, P. J., **Karacostas, T. S.**, and A. A. Flocas, 1993: Air temperature Variations over the Trikala Area. 3d Symposium of Trikala Studies, Trikala, GREECE. (In Press - In Greek).
46. **Karacostas, T. S.**, 1993: Recent Extreme Weather Years Over the Italy-Switzerland Area. *International Conference on Applications of Time Series Analysis in Astronomy and Meteorology*, Padova, ITALY, 365-368.
47. **Karacostas, T. S.**, and C. M. Mitas, 1994: Computer Uses for Identification of Extreme Weather Years. *International Conference on Computer Models in Mediterranean Crop Production*, Madrid, SPAIN, 113-119.
48. **Karacostas, T. S.**, 1994: Hail Size Distributions and Small Scale Structure of Hailfall in Northcentral Greece Hailstorms. *Sixth WMO Scientific Conference on Weather Modification*, Paestum, ITALY, 83-86.
49. Flocas, E. A., and **T. S. Karacostas**, 1994: Synoptic and Dynamic Characteristics of Cyclogenesis Over the Aegean Sea. *International Symposium on the Life Cycles of Extratropical Cyclones*, Bergen, Norway, 186-191.
50. **Karacostas, T. S.**, and C. M. Mitas, 1994: On the Development of a Statistical Model for the Identification of At-site Meteorological Extreme Events. *2d Hellenic Conference on Meteorology - Climatology - Atmospheric Physics*, Thessaloniki, GREECE, 429-438.
51. Flocas, H. A., **T. S. Karacostas**, B. D. Giles and A. A. Flocas, 1994: Considerations on the Overall Dynamics of a Cold Spell over Greece. *2d Hellenic Conference on Meteorology - Climatology - Atmospheric Physics*, Thessaloniki, GREECE, 573-581.
52. **Karacostas, T. S.**, and P. J. Pennas, 1994: A Comprehensive Study of Rainfall During the Last Five Consecutive Low-Rain Years. *International Conference on Atmospheric Physics and Dynamics in the Analysis and Prognosis of Precipitation Fields*, Rome, ITALY, 343-346.
53. **Karacostas, T. S.**, 1994: On the Development of a Model for Identifying Regionally Significant Extreme Rainfall Events. *International Conference on Atmospheric Physics and Dynamics in the Analysis and Prognosis of Precipitation Fields*, Rome, ITALY, (Abstract).
54. **Karacostas, T. S.**, 1996: On the Identification and Study of Heat Wave Events over Greece. *International Congress on Environment/Climate*, Rome, ITALY, (Abstract).
55. **Karacostas, T. S.**, P.J. Pennas and C. M. Mitas, 1996: On the Study of Heat Wave Events in Thessaloniki, Greece, During the Last 30 Years. *14th International Congress of Biometeorology*, Ljubljana, SLOVENIA, 72-79.

56. **Karacostas, T. S.**, P.J. Pennas and C. M. Mitas, 1996: On the Development of a Regression Model for the Identification of Heat Wave Events in Thessaloniki, Greece. *14th International Congress of Biometeorology*, Ljubljana, SLOVENIA, 80-86.
57. Ζαρίφης, Ι., Α. Μπαλάσκας, Μ. Παπαδόπουλος, **Θ. Καρακώστας**, Κ. Σπάργιας και Χ. Χαλκίδης, 1996: Οξύ Έμφραγμα Μυοκαρδίου, Ασταθής Στηθάγχη. Υπάρχει Συσχέτιση Εμφάνισης με τις Ταχείες Μεταβολές της Ατμοσφαιρικής Πίεσης; *17th Panhellenic Congress of Cardiology*, Αθήνα, ΕΛΛΑΔΑ. 35, 68, (Εκτεταμένη περίληψη).
58. List, R., R. Gabriel, B. Silverman, A. Nania, Z. Levin and **T. Karacostas**, 1996: The Physical Experiment and Future of the Puglia Rain Enhancement Project. *Theoretical and Practical Aspects of a Regional Precipitation Enhancement Program for the Middle East and Mediterranean*. Bari, ITALY. (in press).
59. **Karacostas, T. S.**, 1996: The Statistical Evaluation and Future of the Puglia Rain Enhancement Project. *Theoretical and Practical Aspects of a Regional Precipitation Enhancement Program for the Middle East and Mediterranean*. Bari, ITALY. (in press).
60. **Karacostas, T. S.**, 1997: Turbulent Diffusion Characteristics During Airborne Seeding of Stratiform Clouds. Earth - Ocean - Atmosphere Forces for Change, International Association of Meteorology and Atmospheric Sciences and International Association for Physical Sciences of the Oceans, Melbourne, AUSTRALIA.
61. **Karacostas, T. S.**, and D. Melas, 1997: On the Use of Mesoscale Numerical Models for a Simulation Study of Cloud Seeding Over Greece. *Earth - Ocean - Atmosphere Forces for Change, International Association of Meteorology and Atmospheric Sciences and International Association for Physical Sciences of the Oceans*, Melbourne, AUSTRALIA. (Abstract).
62. Kakaliagou, O. K., and **T. S. Karacostas**, 1997: On the Applicability of Objective Analysis Methods. *Symposium on Regional Weather Prediction on Parallel Computer Environments*. Athens, GREECE, 223-228.
63. Styliadis, I., J. Zarifis, A. Balaskas, V. Tsagaris, A. Makris, **T. Karacostas**, C. C. Chalkidis, 1998: Rapid Fluctuations of Atmospheric Pressure; is there any Relation with the Acute Myocardial Ischaemia in Hypertensive Patients? *6th International Symposium on Hypertension in the Community: Screening, Investigation and Therapy*. Geneva, SWITZERLAND. (Extendent Abstract).
64. **Καρακώστας, Θ.**, Μ. Παπαδόπουλος και Α. Τουρναβίτη, 1998: Δημιουργία ενός μοντέλου Γραμμικής παλινδρόμησης για την αναγνώριση των ακραίων τιμών παραγωγής ως συνάρτηση μετεωρολογικών παραμέτρων. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ,
65. Τουρναβίτη, Α., Μ. Παπαδόπουλος, Γ. Ζέρβα, Λ. Τούλιος και Α., **Θ. Καρακώστας**, 1998: Δημιουργία ενός αγρομετεωρολογικού μοντέλου πρόβλεψης παραγωγής σιταριού στην περιοχή της κεντρικής Θεσσαλίας. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ,
66. Πέννας, Π., **Θ. Καρακώστας** και Μ. Παπαδόπουλος, 1998: Σχέσεις Θερμοκρασίας – Βροχόπτωσης στη Θεσσαλονίκη. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 231-236.
67. Βάρφη, Μ., **Θ. Καρακώστας**, Φ. Κολυβά – Μαχαίρα και Μ. Παπαδόπουλος, 1998: Εφαρμογή της Διακρίνουσας Ανάλυσης στη Μετεωρολογία. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 257 - 262.
68. Σιούτας, Μ., Α. Φλόκας, **Θ. Καρακώστας** και Τ. Μακρογιάννης, 1998: Η Κλιματολογία του Χαλαζιού στην κεντροδυτική Μακεδονία. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 179-184.
69. Νικολαΐδης, Κ., Σ. Μιχαηλδης και **Θ. Καρακώστας**, 1998: Στατιστική Ανάλυση των Χειμερινών Βαροκλινικών Υφέσεων στην Περιοχή της Κύπρου. *Πρακτικά 4^{ου} Πανελλήνιου Συνεδρίου Μετεωρολογίας - Κλιματολογίας - Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 1-6.
70. Παπαδόπουλος, Μ. και **Θ. Καρακώστας**, 1998: Ένα Δυναμικό Μοντέλο Υπολογισμού του Υετού στον Ελλαδικό Χώρο – Μέρος Ι: Δυναμικό Μέρος. *Πρακτικά 4ου Πανελλήνιου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 55 - 60.

71. Παπαδόπουλος, Μ. και **Θ. Καρακώστας**, 1998: Ένα Δυναμικό Μοντέλο Υπολογισμού του Υετού στον Ελλαδικό Χώρο – Μέρος II: Μικροφυσικό Μέρος. *Πρακτικά 4ου Πανελληνίου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 61 - 66.
72. Παπαδόπουλος, Μ. και **Θ. Καρακώστας**, 1998: Ένα Δυναμικό Μοντέλο Υπολογισμού του Υετού στον Ελλαδικό Χώρο – Μέρος III: Εφαρμογή. *Πρακτικά 4ου Πανελληνίου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 67 - 72.
73. Σπύρου, Κ., Α. Φλόκας, Τ. Μακρογιάννης και **Θ. Καρακώστας**, 1998: Συνοπτική, δυναμική και θερμοδυναμική μελέτη επεισοδίου καύσωνα στον ευρύτερο Ελλαδικό χώρο. *Πρακτικά 4ου Πανελληνίου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 430-438.
74. Μιχαηλίδης, Σ., Κ. Νικολαΐδης και **Θ. Καρακώστας**, 1998: Ισοβαρικές κατανομές δυναμικών πεδίων στον ευρύτερο Ευρωπαϊκό χώρο. *Πρακτικά 4ου Πανελληνίου Συνεδρίου Μετεωρολογίας – Κλιματολογίας – Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ.
75. **Karacostas, T. S.**, 1998: On the Study of Wheat Drought Conditions over Europe. European Conference on Applied Climatology. Vienna, AUSTRIA,
76. **Karacostas, T. S.**, 1998: Identification of Agriculturally Significant Extreme Temperature Events. European Conference on Applied Climatology. Vienna, AUSTRIA,
77. Pennas, P. J. and **T. S. Karacostas**, 1998: On the Study of the Precipitation Intensity over Thessaloniki, Greece. European Conference on Applied Climatology. Vienna, AUSTRIA.
78. Γιαννούλη, Μ., Π. Πέννας, και **Θ. Καρακώστας**, 2000: Συνοπτικές καταστάσεις κατά την περίοδο του Εθνικού Προγράμματος Χαλαζικής Προστασίας. *Πρακτικά 5ου Πανελληνίου Επιστημονικού Συνεδρίου Μετεωρολογίας – Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, 28-30 Σεπτεμβρίου, Θεσσαλονίκη, ΕΛΛΑΔΑ, 267-274.
79. Τουρναβίτη, Α., Μ. Βάρφη και **Θ. Καρακώστας**, 2000: Εφαρμογή της Διακρίνουσας Ανάλυσης στην Πρόγνωση Χαλαζοκαταιγίδων. *5ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 187-194.
80. Νικολαΐδης Κ., Σ. Μιχαηλίδης και **Θ. Καρακώστας**, 2000: Υπολογισμός των ενεργειακών χαρακτηριστικών του θερινού θερμικού χαμηλού των Ινδιών. *5ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 179-186.
81. Tournaviti, A., **T. Karacostas**, 2000: Hailstorm Forecast over Central Macedonia, Greece. *XXV Conference of the European Geophysical Society*, Nice, FRANCE.
82. Toullos L., A. Tournaviti, G. Zerva and **T. Karacostas**, 2001: Agrometeorological modelling for cotton yield estimation. *ECAM Meeting*, Budapest.
83. Βάρφη, Μ., Α. Τουρναβίτη και **Θ. Καρακώστας**, 2002: Μελέτη Χαρακτηριστικών των Επεισοδίων Καύσωνα στη Θεσσαλονίκη. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 43-50.
84. Νικολαΐδης Κ., Σ. Μιχαηλίδης και **Θ. Καρακώστας**, 2002: Υπολογισμός δυναμικών χαρακτηριστικών επιλεγμένων βαροκλινικών υφέσεων που επηρέασαν την περιοχή της Κύπρου. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 229-236.
85. Μιχαηλίδης, Σ., Κ. Νικολαΐδης και **Θ. Καρακώστας**, 2002: Ισοβαρικές κατανομές δυναμικών πεδίων στον ευρύτερο Ευρωπαϊκό χώρο. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 168-193.
86. Σπανός, Σ., Π. Μαχαίρας, **Θ. Καρακώστας** και Π. Πέννας, 2002: Κλιματικά χαρακτηριστικά κέντρων κυκλωνικής δραστηριότητας στην κεντροανατολική Μεσόγειο κατά τη θερμή περίοδο για τη στάθμη των 500 hPa. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 414-421.
87. Μπρίκας, Δ. Π. και **Θ. Σ. Καρακώστας**, 2002: Η θέση του Υποτροπικού Αεροχειμάρρου κατά την εκδήλωση επεισοδίων Καύσωνα. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 203-210.
88. **Καρακώστας, Θ.**, 2002: Η Αξιολόγηση του Εθνικού Προγράμματος Χαλαζικής Προστασίας των Καλλιεργειών. *6ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 614-620.

89. **Karacostas, T. S.**, P. Pennas and G. Zerva, 2002: Studying the Effects of Extreme Climatic Events on Wheat. *6^ο Πανελλήνιο Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Ιωάννινα, 621-629.
90. **Karacostas, T. S.**, 2005: A Review of Hailstorm, Hail Science, Hail Suppression and Critical Issues for Moving Forward. *7th Plinius Conference on Mediterranean Storms*, Crete, *PLINIUS7-A-00118, (solicited)*.
91. Nicolaides, K.A., Michalelides, S.C. and T. Karacostas, 2005: Synoptic and dynamic characteristics of selected deep depressions over Cyprus. *7th Plinius Conference on Mediterranean Storms*, Crete, *PLINIUS7-A-00053*.
92. Foris, D., T. Karacostas, A. Flocas and T. Makrogiannis, 2005: Kinematic characteristics of hailstorms in northern Greece. *7th Plinius Conference on Mediterranean Storms*, Crete, *PLINIUS7-A-00059*.
93. Φόρης, Δ., **Θ. Καρακώστας**, Α. Φλόκας και Τ. Μακρογιάννης, 2005: Θερμοδυναμική Μελέτη του Περιβάλλοντος των Χαλαζοκαταιγίδων στην Περιοχή της Κεντρικής Μακεδονίας. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 52-59.
94. Ρεφενέ-Κατσιμάρδου, Μ., Τ. Μακρογιάννης, Α. Φλόκας και **Θ. Καρακώστας**, 2005: Μελέτη Εισαγωγής της Ορεογραφίας της Ελλάδας στα Αριθμητικά Μοντέλα Καιρού. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 66-75.
95. Ρεφενέ-Κατσιμάρδου, Μ., Τ. Μακρογιάννης, Α. Φλόκας και **Θ. Καρακώστας**, 2005: Μελέτη της Επίδρασης της Ορεογραφίας της Ελλάδας στα Πεδία του Ανέμου και του Υετού με Χρήση Αριθμητικού Μοντέλου Καιρού. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 76-85.
96. Μιχαηλίδης, Σ., Κ. Νικολαΐδης και **Θ. Καρακώστας**, 2005: Χαρακτηριστικά της Τροπόπαυσης Βαροκλινικών Υφέσεων στην Περιοχή της Κύπρου. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 268-275.
97. Νικολαΐδης, Κ., Σ. Μιχαηλίδης, και **Θ. Καρακώστας**, 2005: Διάγνωση Δυναμικών Χαρακτηριστικών της Κατώτερης Ατμόσφαιρας και Ανώτερης Τροπόσφαιρας σε Σχέση με Επιλεγμένες Βαροκλινικές Υφέσεις που Επηρέασαν την Περιοχή της Κύπρου. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 276-285.
98. Πακαλίδου, Ν., **Θ. Καρακώστας**, 2005: Ο Καύσωνας στη Θεσσαλονίκη κατά τα Τελευταία 44 Χρόνια. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 744-751.
99. Τουρναβίτη, Α., **Θ. Καρακώστας**, Α. Φλόκας και Τ. Μακρογιάννης, 2005: Μελέτη Παραμέτρων Ισοδύναμης Δυναμικής Θερμοκρασίας και Χαλαζοκαταιγίδων στην Κεντροδυτική Μακεδονία. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 315-320.
100. **Καρακώστας, Θ.**, Χ. Λιάμπας, Κ. Λιάμπα και Ν. Τσάντας, 2005: Συμβολή στη Δημιουργία Αλγορίθμου για τον Εντοπισμό και Μέτρηση των Χαρακτηριστικών των Χαλαζοκόκκων. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 321-328.
101. Στολάκη, Σ., **Θ. Καρακώστας**, 2005: Μια Αναλυτική Έκφραση του Φαινομένου της Χαλαζόπτωσης. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 338-344.
102. Μπρίκας, Δ., **Θ. Καρακώστας**, Α. Φλόκας και Π. Πέννας, 2005: Ο Ρόλος του Υποτροπικού Αεροχειμάρρου στη Δημιουργία και Εκδήλωση Χαλαζοκαταιγίδων. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 345-353.
103. Δημούτση, Σ., **Θ. Καρακώστας**, 2005: Ο Αεροχειμάρρος και η Επίδρασή του στις Χαλαζοκαταιγίδες στην Περιοχή της Κεντρικής Μακεδονίας. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 354-361.
104. Ορφανού, Α., **Θ. Καρακώστας**, 2005: Δυνητικότητα Αντιμετώπισης Συνθηκών Λειψυδρίας στην Κεντρική και Βόρεια Ελλάδα. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 362-371.

105. Βάρφη, Μ., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Α. Φλόκας, 2005: Μελέτη Χαρακτηριστικών των Θερμών και Ψυχρών Εισβολών στον Ευρύτερο Ελλαδικό Χώρο. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 752-759.
106. Mavrommatis, T., **T. Karacostas**, 2005: An Evaluation of Drought Indices for Prediction in Northern Greece. *7^ο Πανελλήνιο (Διεθνές) Συνέδριο Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Λευκωσία, ΚΥΠΡΟΣ, 981-988.
107. Stolaki, S., **Th. Karacostas**, 2006: Frequency of Occurrence and Intensity of Hailfall over North-Central Greece, During the First Part of the 21st Century. *Conference on "Global Changes and Regional Challenges"*, Sofia Univrersity "St. Kliment Ohridski", BULGARIA.
108. Τεγούλιας, Ι., Χ. Μπαλαφούτης, Τ. Μακρογιάννης και **Θ. Καρακώστας**, 2005: Ανάλυση της Διασυννοριακής Μεταφοράς Ρύπων με τη Χρήση Λαγκρανζιανων Μοντέλων. *Πρακτικά 2^{ου} Περιβαλλοντικού Συνεδρίου Μακεδονίας*, Θεσσαλονίκη, ΕΛΛΑΔΑ.
109. Τεγούλιας Ι., Χ. Μπαλαφούτης, Τ. Μακρογιάννης και **Θ. Καρακώστας**, 2006: Μελέτη της Μεταφοράς Αερίων και Σωματιδιακών Ρύπων με τη Χρήση Λαγκρανζιανών Μοντέλων. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 169-175.
110. Καραγιαννίδης, Α., Ι. Τεγούλιας, Μ. Βάρφη, Α. Τουρναβίτη, Χ. Μιχαηλίδου και **Θ. Καρακώστας**, 2006: Μελέτη της Θαλάσσιας Αύρας στην Περιοχή της Θεσσαλονίκης. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα. ΕΛΛΑΔΑ, 224-232.
111. Βάρφη, Μ., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Α. Φλόκας, 2006: Μελέτη Χαρακτηριστικών των Θερμών και Ψυχρών Εισβολών στην Περιοχή της Θεσσαλονίκης. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 70-80.
112. **Καρακώστας, Θ.**, Π. Κοντογιάννη, Π. Ρούπα, Ε. Λυσίτσα. Δ. Μπρίκας και Χ. Μήτας, 2006: Μελέτη των Χαρακτηριστικών του Εμποδισμού Ωμέγα στην Ευρύτερη Περιοχή της Νοτιο-Ανατολικής Ευρώπης. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 233-242.
113. Νικολαΐδης, Κ., Σ. Μιχαηλίδης και **Θ. Καρακώστας**, 2006: Διάγνωση Δυναμικών Χαρακτηριστικών της Κατώτερης Στρατόσφαιρας και Ανώτερης Τροπόσφαιρας σε Σχέση με Επιλεγμένες Βαροκλινικές Υφέσεις που Επηρέασαν την Περιοχή της Κύπρου. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 22-30.
114. Πακαλίδου, Ν., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Θ. Μαυρομμάτης, 2006 : Μελλοντική Προβολή Επεισοδίων Καύσωνα στη Θεσσαλονίκη. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 38-45.
115. Τσαπανίδης, Η., Τ. Μακρογιάννης, **Θ. Καρακώστας**, Π. Πέννας, 2006: Αξιολόγηση Δεικτών Αστάθειας της Ατμόσφαιρας στην Περιοχή της Κεντρικής Μακεδονίας. *Πρακτικά 8^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Αθήνα, ΕΛΛΑΔΑ, 219-227.
116. Ακριτίδης, Δ., Π. Ζάνης, Ι. Πυθαρούλης, Α. Μαυράκης και **Θ. Καρακώστας**, 2008: Ένα Έντονο Επεισόδιο Εισβολής Στρατοσφαιρικού Αέρα έως την Επιφάνεια του Εδάφους στην Περιοχή της Αθήνας. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 3-10.
117. Καραγιαννίδης, Α., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Π. Μαχαίρας, 2008: Συνοπτικά και Δυναμικά Χαρακτηριστικά Επεισοδίων Εξαιρετικής Βροχοπτώσης στον Ελλαδικό Χώρο. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 83-90.
118. Κοντογιάννη, Π., **Θ. Καρακώστας**, Ι. Πυθαρούλης και Η. Λυσarıδης, 2008: Μελέτη των Χαρακτηριστικών της Θαλάσσιας Αύρας στην Περιοχή της Θεσσαλονίκης. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 123-130.
119. Πυθάρουλης, Ι., Δ. Μπρίκας, Π. Λουκά, Τ. Μακρογιάννης και **Θ. Καρακώστας**, 2008: Χαρακτηριστικά και Προγνωσιμότητα του Έντονου Επεισοδίου Καύσωνα που Επηρέασε τον Ελλαδικό Χώρο τον Ιούνιο του 2007. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 195-202.

120. Ρούπα, Π. και **Θ. Καρακώστας**, 2008: Μελέτη των Χαρακτηριστικών των Ηλεκτρικών Εκκένωσεων στον Ευρύτερο Ελλαδικό Χώρο. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 211-218.
121. Βάρφη, Μ., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Α. Φλόκας, 2008: Τύποι κυκλοφορίας των Θερμών και Ψυχρών Εισβολών στην Ελληνική Περιοχή. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 345-352.
122. Κολιού, Α., **Θ. Καρακώστας**, Π. Πέννας και Α. Κωνσταντίνου, 2008: Σχέσεις Θερμοκρασίας-Βροχόπτωσης για το Σταθμό της Κέρκυρας. *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 385-392.
123. Πακαλίδου, Ν., **Θ. Καρακώστας** και Σ. Στολάκη, 2008: Μελέτη και Χρονική Προβολή των Επεισοδίων Ψυχρών Ημερών στη Θεσσαλονίκη. 2008: *Πρακτικά 9^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Θεσσαλονίκη, ΕΛΛΑΔΑ, 465-472.
124. Stolaiki, S., S. Kazadzis, D. Foris and **Th. Karacostas**, 2008: Study of fog occurrences' characteristics at Thessaloniki airport, as a forecasting tool, 10th Plinius Conference on Mediterranean Storms, Nicosia, Cyprus, 22-24 September 2008
125. Serpetzoglou E., A. Papadopoulos, E. N. Anagnostou and **T. S. Karacostas**, 2009: Investigation of land-atmosphere coupling processes through long-term assimilation of radar precipitation data into the land surface scheme of a mesoscale model. *Geophysical Research Abstracts*, Vol. 11, EGU2009-9654.
126. Zanis P., C. Ntogras, I. Pytharoulis, **T. Karacostas**, A. Zakey, 2009: On the direct effect of anthropogenic aerosols on European climate based on regional climate modeling with RegCM3, International workshop on: Atmospheric Composition Changes: Climate-Chemistry Interactions, Lecce, Italy - November 2-4, 2009.
127. Βάρφη, Μ., **Θ. Καρακώστας**, Τ. Μακρογιάννης και Α. Φλόκας, 2010: Συνοπτικά και Θερμοδυναμικά Χαρακτηριστικά μιας Ψυχρής Εισβολής στον Ελληνικό Χώρο. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
128. Καραγιαννίδης, Α.Φ., Α. Γ Τριανταφύλλου και **Θ. Σ. Καρακώστας**, 2010: Διαχρονική Μεταβολή των Βασικών Κλιματικών Μεγεθών στην Περιοχή Κοζάνης-Πτολεμαΐδας και Συνδέση της με τη Βιομηχανική Δραστηριότητα στην Περιοχή. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
129. Γιαννούλακης, Ι, Σ. Στολάκη, Φ. Πάσχος και **Θ. Σ. Καρακώστας**, 2010: Μια Αναλυτική Προγνωστική Έκφραση του Φαινομένου της Ομίχλης στο Αεροδρόμιο «Μακεδονία».
130. Πάσχος, Φ., Σ. Στολάκη, Ι. Γιαννούλακης και **Θ. Καρακώστας**, 2010: Μελέτη Συνοπτικών Καταστάσεων που Ευνοούν την Εμφάνιση Ομίχλης στο Αεροδρόμιο «Μακεδονία». *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
131. Πακαλίδου, Ν., και **Θ. Καρακώστας**, 2010: Μελέτη των Επεισοδίων Καύσωνα στη Θεσσαλονίκη Κατά τα Τελευταία 60 Χρόνια. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
132. Δ. Μπαμπζέλης και **Θ. Καρακώστας**, 2010: Σχέση των Χαρακτηριστικών των Νεφών με τη Θερμοκρασία και τον Υετό στη Θεσσαλία. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
133. Κ. Τυμπανίδης, Ι. Πυθαρούλης, Χ. Ντόγρας, Χ. Σιδεροπούλου και **Θ. Καρακώστας**, 2010: Εκτίμηση του Αιολικού Δυναμικού στην Περιοχή της Οροσειράς του Βερμίου. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
134. **Θ. Καρακώστας**, Δ. Μπρίκας, Ι. Πυθαρούλης και Π. Πέννας, 2010: Δυναμικές Διαδικασίες της Μεσογειακής Βόμβας του 2004. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
135. Μ. Χριστοδούλου και **Θ. Καρακώστας**, 2010: Χαρακτηριστικά Υπερκυτταρης Καταιγίδα στην Περιοχή της Κεντρικής Μακεδονίας. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας*, Πάτρα, ΕΛΛΑΔΑ.
136. P. Zanis, C. Ntogras, A. Zakey, I. Pytharoulis, I. Tegoulis, **T. Karacostas**, 2010: A Regional Climate Modeling Study for the Direct Effect of Antropogenic Aerosols on European Climate for the Period 1996-2007.

Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας, Πάτρα, ΕΛΛΑΔΑ.

137. S. Kotsopoulos, Th. Pexaras, I. Pytharoylis, G. Morakis and **Th. Karacostas**, 2010: Improving Forecasts of Surface Temperature Using Artificial Neural Networks. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας, Πάτρα, ΕΛΛΑΔΑ.*
138. G. Morakis, K. Karamanoli, S. Kotsopoulos, Th. Mavromatis, **Th. Karacostas** and H.-I. A. Constantinidou, 2010: Effects of Heat Wave on Physiology of Basil as Mediated by Nitrogen Application and Genotype. *Πρακτικά 10^{ου} Πανελληνίου Συνεδρίου Μετεωρολογίας, Κλιματολογίας και Φυσικής της Ατμόσφαιρας, Πάτρα, ΕΛΛΑΔΑ.*
139. Pytharoulis I., H. Feidas and **Th. Karacostas**, 2010: Study of Lightning Activity with the use of high-resolution Simulations. Proceedings of the 9th Pan-Hellenic Geographical Congress, Athens, GREECE, 33-40.
140. Pytharoulis, I., A. F. Karagiannidis, D. Brikas, P. Katsafados, A. Papadopoulos, E. Mavromatidis, S. Kotsopoulos, and **T.S. Karacostas**, 2010: Sensitivity of WRF precipitation on microphysical and boundary layer parameterizations during extreme events in Eastern Mediterranean. 12th Plinius Conference on Mediterranean Storms, Corfu, GREECE, Vol.12, Plinius, 12-76.
141. **Karacostas, T. S.**, D. Brikas, and I. Pytharoulis, 2010: Dynamic processes associated with the eastern Mediterranean 'bomb' of 2004. 12th Plinius Conference on Mediterranean Storms, Corfu, GREECE, Vol.12, Plinius, 12-83.
142. Stolaki S., I. Pytharoulis and **Th. Karacostas**, 2010: Study of fog characteristics by using the 1-D model COBEL at the airport of Thessaloniki, Greece, Proceedings of the 5th International Conference on Fog, Fog Collection and Dew, 25-30 July, Münster, Germany, pp 195-198.
143. Stolaki S., I. Pytharoulis, G. Karoutsos and **Th. Karacostas**, 2010: Sensitivity study of a local numerical fog prediction system. XIX Congress of the Carpathian Balkan Geological Association, 23-26 September, Thessaloniki, Greece, 375.
144. Dogras C, Tympanidis K, Pytharoulis Ioannis, Sideropoulou, **Karacostas Theodoros** 2010. Wind energy potential assessment over the Vermion mountainous area. Proceedings of the 10th Hellenic Scientific Conference on Meteorology, Climatology and Atmospheric Physics. Patras, Greece. 314-321.
145. **Karacostas, T.**, V. Spiridonov, D. Bampzelis and I. Pytharoulis, 2011: A Three-Dimensional Numerical Simulation of Supercell Hailstorm Seeding over Greece using a Cloud Model. 10th WMO Scientific Conference on Weather Modification, Bali, INDONESIA
146. Soulios, G., **T. Karacostas**, A. Kilmpasanis and Ch. Mattas, 2012: The Evolution of Precipitation in Greece, during the last 50 years. Protection and Restoration of the Environment XI, Thessaloniki, GREECE, 176-183.
147. Akritidis, D., P. Zanis, E. Katragkou, I. Tegoulis, A. Poupkou, K. Markakis, **Th. Karacostas**, and I. Pytharoulis, 2012: Evaluation of regional climate - air quality simulations over Europe for the period 1996-2006 with emphasis on tropospheric ozone: The impact of chemical boundary conditions. European Geosciences Union General Assembly, Vienna, AUSTRIA, 22-27 April 2012, EGU2012-4647.
148. **Karacostas, T.**, V. Spiridonov, D. Bampzelis, I. Pytharoulis, G. Karoutsos and C. Sideropoulou, 2012: Synoptic, dynamic and thermodynamic characteristics of the 10th August 2008 intensive storm over north-central Greece. 11th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, GREECE, 145-150.
149. Brikas, D., **T. Karacostas** and I. Pytharoulis, 2012: Synoptic aspects of the Eastern Mediterranean explosive cyclogenesis of 22 January 2004. 11th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, GREECE, 35-42.
150. Akritidis, D., P. Zanis, E. Katragkou, I. Tegoulis, A. Poupkou, K. Markakis, **Th. Karacostas** and I. Pytharoulis, 2012: Air quality simulations over Europe for the period 1996-2006 with emphasis on tropospheric ozone. 11th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, GREECE, 849-856.

151. Katragkou E., P. Zanis, I. Pytharoulis, I. Tegoulis, F. Marougianni, **T. Karacostas**, 2012: EURO-CORDEX regional climate simulations: Hindcast 1990-2008, 1st WRF-CORDEX Workshop & Corwes WRF4G hands-on tutorial, 1-5 October, Tenerife, Spain.
152. Katragkou, E., I. Tegoulis, I. Pytharoulis, P. Zanis, and **T. Karacostas**, 2013: Grid enabled regional climate simulations within the EURO-CORDEX project: ERA-interim hindcast 1990-2009. European Geosciences Union General Assembly, Vienna, AUSTRIA, 7-12 April, EGU2013-5274.
153. Katragkou E., R. Vautard, P. Zanis, R. M. Cardoso, J. Fernandez, M. García-Díez, K. Goergen, S. Mayer, I. Pytharoulis, S. Sobolowski, P. Soares, I. Tegoulis, **T. Karacostas**, A. Gobiet, D. Jacob, 2013: Evaluation of a WRF-hindcast ensemble within the EURO-CORDEX project, International Conference on Regional Climate –CORDEX 2013, A partnership between WCRP, the European Commissions and IPCC, 4-7 November 2013, Brussels, Belgium.
154. Akritidis D., P. Zanis, I. Pytharoulis and **T. Karacostas**, 2014: Assessment of near-surface ozone trends over Europe in regional climate – air quality simulations: The impact of emissions. EGU General Assembly 2014, 27 April – 2 May, Vienna, Austria
155. Katragkou E., P. Zanis, M. Cardoso, J. Fernandez, M. Garcia-Diez, A. Gobiet, K. Goergen, D. Jacob, **T. Karacostas**, S. Mayer, I. Pytharoulis, P. Soares, S. Sobolowski, I. Tegoulis. A. Tsikerdekis and R. Vautard, 2014: Evaluation of a WRF-hindcast ensemble within the EURO-CORDEX project. EGU General Assembly 2014, 27 April – 2 May, Vienna, Austria.
156. Tegoulis I., I. Pytharoulis, D. Bampzelis and **T. Karacostas**, 2014: Evaluation of numerical weather predictions performed in the context of the project DAPHNE. EGU General Assembly 2014, 27 April – 2 May, Vienna, Austria
157. Pytharoulis I., I. Tegoulis, S. Kotsopoulos and **T. Karacostas**, 2014: The impact of sea-surface temperatures on numerical weather predictions. 14th Annual Meeting of the European Meteorological Society and 10th European Conference on Applied Climatology (ECAC). 6-10 October, Prague, Czech Republic
158. Tegoulis I., I. Pytharoulis, S. Kotsopoulos, D. Bampzelis, S. Kartsios and **T. Karacostas**, 2014: Sensitivity of high resolution simulations over central Greece to WRF parameterisations. 14th Annual Meeting of the European Meteorological Society and 10th European Conference on Applied Climatology (ECAC). 6-10 October, Prague, Czech Republic.
159. Brikas D., I. Pytharoulis, A. Mavroudis and **T. Karacostas**, 2014: Vorticity equation terms for the explosive Mediterranean cyclogenesis of 22 January 2004. 10th International Congress of the Hellenic Geographical Society, 22-24 October, Thessaloniki, Greece
160. Kotsopoulos S., I. Pytharoulis, Th. Mavromatis and **Th. Karacostas**, 2014: Impact of irrigated land on short range weather forecast in northern Greece. 10th International Congress of the Hellenic Geographical Society, 22-24 October, Thessaloniki, Greece
161. Kotsopoulos S., I. Tegoulis, I. Pytharoulis, S. Kartsios, D. Bampzelis and **T. Karacostas**, 2014: Impact of irrigations on simulated convective activity over central Greece: a high resolution study. AGU Fall Meeting, 15-19 December, San Francisco, California, USA
162. Tegoulis I., I. Pytharoulis, S. Kotsopoulos, S. Kartsios, D. Bampzelis and **T. Karacostas**, 2014: Numerical weather predictions evaluation using spatial verification methods. AGU Fall Meeting, 15-19 December, San Francisco, California, USA
163. Bampzelis, D., F. Athanasiou, A. Kampouri, S. Papacharalampous, V. Pavlidis, A. Tsavdari and **Th. Karacostas**, 2014: The Pindus mountainous range effect on the temperature-precipitation relation. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 112-116.
164. Akritidis, D., P. Zanis, I. Pytharoulis and **Th. Karacostas**, 2014: Estimating near surface ozone trends over Europe for the time period 1996-2006 using the RegCM3/CAMx modeling system. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 23-27.
165. Bampzelis, D. and **Th. Karacostas**, 2014: Radar storm characteristics based upon their synoptic situations over Thessaly. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 117-121.

166. Brikas, D., I. Pytharoulis, A. Mavroudis and **Th. Karacostas**, 2014: Dry intrusion triggering explosive cyclogenesis in the Mediterranean. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 165-169.
167. Giannoulakis, I. and **Th. Karacostas**, 2014: Synoptic, dynamic and thermodynamic characteristics of snowfall events in the area of Thessaloniki. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 337-342.
168. **Karacostas, Th.**, I. Pytharoulis, I. Tegoulis, E. Katragkou and P. Zanis, 2014: Mitigating the Impact of Climate Change on Drought: The potentiality of a precipitation enhancement project (DAPHNE) in Thessaly. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 449-454.
169. Karoutsos, G., **Th. Karacostas**, I. Pytharoulis and P. Zanis, 2014: Evaluation of Kalman filter on temperature forecasts simulated by numerical weather prediction models. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 471-476.
170. Kartsios, S., **Th. Karacostas**, I. Pytharoulis and A. Dimitrakopoulos, 2014: Coupled Weather – Wildland Fire Model for fire behavior interpretation. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 477-481.
171. Katragkou, E., P. Zanis, I. Pytharoulis, **Th. Karacostas**, I. Tegoulis, A. Tsikerdekis, R. M. Cardoso, J. Fernandez, M. García-Díez, K. Goergen, S. Mayer, P. Soares, S. Sobolowski, R. Vautard, 2014: Evaluation of a WRF-hindcast ensemble within the EURO-CORDEX project. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 1, 514-518.
172. Kotsopoulos, S., I. Pytharoulis, I. Tegoulis and **Th. Karacostas**, 2014: A Comparative Study of Two Land Surface Schemes in WRF-ARW Model. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 2, 33-38.
173. Lysitsa, E. and **Th. Karacostas**, 2014: Synoptic, Dynamic and Thermodynamic Characteristics of the 21-23 January 2004 Meteorological Bomb over Eastern Mediterranean. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 2, 158-162.
174. Pakalidou, N., and **Th. Karacostas**, 2014: On the relation between heat wave events and fire risk indices over Chalkidiki-Greece. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 14-20.
175. Paschos, F., E. Tremoulis and **Th. Karacostas**, 2014: Study of the explosive cyclogenesis 'JULIA' in the Mediterranean area. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 61-66.
176. Pytharoulis, I., I. Tegoulis, S. Kotsopoulos, D. Bampzelis, **Th. Karacostas** and E. Katragkou, 2014: Evaluation of the Operational Numerical Weather Predictions of the WaveForUs project. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 96-101.
177. Sfyri, E., D. Bampzelis, and **Th. Karacostas**, 2014: Differences between two hailstorms developed under two different forcing mechanisms over the same synoptic environment in Central Macedonia. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 139-143.
178. Tegoulis, I., I. Pytharoulis, S. Kotsopoulos and **Th. Karacostas**, 2014: Numerical Weather Prediction Sensitivity to Sea-Surface Temperatures. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 203-208.
179. Tympanidis, K., F. Athanasiou, A. Kampouri, S. Papacharalampous, V. Pavlidis, A. Tsavdari, D. Bampzelis and **Th. Karacostas**, 2014: The influence of Pindus mountainous range upon the temperature and precipitation characteristics. 12th International Conference on Meteorology, Climatology and Atmospheric Physics, Heraclion, GREECE, Volume 3, 261-265.
180. Pytharoulis, I., I. Tegoulis, S. Kotsopoulos, D. Bampzelis, S. Kartsios, P. Zanis, E. Katragkou, and **Th. Karacostas**, 2014: High-resolution WRF hindcasts over Central Greece: Characteristics of simulated convective activity and model evaluation. 15th WRF Users' Workshop, June 23-27, Boulder, Colorado, U.S.A.

181. Tegoulis, I., I. Pytharoulis, S. Kotsopoulos, D. Bampzelis, S. Kartsios, and **Th. Karacostas**, 2014: The influence of WRF parameterisation schemes on high resolution simulations over Central Greece. 15th WRF Users' Workshop, June 23-27, Boulder, Colorado, U.S.A.
182. Bampzelis, D., I. Pytharoulis, I. Tegoulis, P. Zanis and **T. Karacostas**, 2014: Rainfall characteristics and drought conditions interconnected to the potentiality and applicability of the "DAPHNE" rain enhancement project in Thessaly. 10th International Congress of the Hellenic Geographical Society, Thessaloniki, GREECE, 94-100.
183. Kartsios S., **Th. Karacostas**, I. Pytharoulis and A.P. Dimitrakopoulos, 2014: Simulating atmosphere-fire interactions using a coupled weather – wildland fire model. Proceedings of the 10th International Congress of the Hellenic Geographical Society, 22-24 October, Thessaloniki, Greece, 77-86.
184. Pytharoulis I., I. Tegoulis, S. Kotsopoulos, D. Bampzelis, E. Katragkou and **T. Karacostas**, 2014: A high-resolution numerical weather prediction system for Greece: model setup and performance analysis. Proceedings of the 10th International Congress of the Hellenic Geographical Society, 22-24 October, Thessaloniki, Greece, 135-145
185. **Karacostas, T.**, D. Bampzelis, M. Douka, G. Lazoglou and D. Mitropoulos, 2014: Synoptic situations and their relation with precipitation over the region of Thessaly. 10th International Congress of the Hellenic Geographical Society, Thessaloniki, GREECE.
186. Kotsopoulos, S., I. Tegoulis, I. Pytharoulis, S. Kartsios, D. Bampzelis and **T. Karacostas**, 2014: Impact of irrigations on simulated convective activity over central Greece: A high resolution study. AGU Fall Meeting, San Francisco, USA, December 15-19.
187. Tegoulis, I., I. Pytharoulis, S. Kotsopoulos, S. Kartsios, D. Bampzelis and **T. Karacostas**, 2014: Numerical Weather Predictions Evaluation Using Spatial Verification Methods. AGU Fall Meeting, San Francisco, USA, December 15-19.
188. Katragkou E., P. Zanis, M. Cardoso, J. Fernandez, M. Garcia-Diez, A. Gobiet, K. Goergen, D. Jacob, **T. Karacostas**, S. Mayer, I. Pytharoulis, P. Soares, S. Sobolowski, I. Tegoulis. A. Tsikerdekis, R. Vautard, 2014: Evaluation of a WRF-hindcast ensemble within the EURO-CORDEX project, European Geosciences Union (EGU) General Assembly 2014, 28/4 – 2/5/2014, Vienna, Austria.
189. Tsokas, G. N., C. B. Papazachos, C. Vouvalidis, T. Soldatos, G. Syrides, and **T. Karacostas**, 2014: The new syllabus and educational tools developed in the framework of EPEAEK project of the Geology Department, Aristotle University of Thessaloniki.
190. **Karacostas T.**, D. Bampzelis, S. Karipidou, I. Pytharoulis, I. Tegoulis, S. Kartsios, S. Kotsopoulos and N. Pakalidou, 2015: Comparative analysis of near-present and future synoptic conditions and their contribution to precipitation in central Greece. EGU General Assembly 2015, 12-17 April, Vienna, Austria.
191. Kartsios S., S. Kotsopoulos, **T. Karacostas**, I. Tegoulis, I. Pytharoulis and D. Bampzelis, 2015: Statistical evaluation of the simulated convective activity over central Greece. EGU General Assembly 2015, 12-17 April, Vienna, Austria.
192. Kotsopoulos S., I. Tegoulis, I. Pytharoulis, S. Kartsios, D. Bampzelis and **T. Karacostas**, 2015: The impact of the uncertainty in the initial soil moisture condition of irrigated areas on the spatiotemporal characteristics of convective activity in central Greece. EGU General Assembly 2015, 12-17 April, Vienna, Austria.
193. Tegoulis I., I. Pytharoulis, **T. Karacostas**, S. Kartsios, S. Kotsopoulos and D. Bampzelis, 2015: Performance of the operational high-resolution numerical weather predictions of the Daphne project. EGU General Assembly 2015, 12-17 April, Vienna, Austria.
194. Pytharoulis I., I. Tegoulis, **T. Karacostas**, S. Kotsopoulos, S. Kartsios and D. Bampzelis, 2015: Evaluation of operational numerical weather predictions in relation to the prevailing synoptic conditions. EGU General Assembly 2015, 12-17 April, Vienna, Austria.
195. **Karacostas Th.**, I. Pytharoulis, I. Tegoulis, D. Bampzelis and S. Kartsios, 2015: The "DAPHNE" conceptual model for the design of a precipitation enhancement project in Thessaly, Greece. 5th International conference on Meteorology and Climatology of the Mediterranean, 2-4 March, Istanbul, Turkey

196. Tegoulis I., **Th. Karacostas**, I. Pytharoulis, S. Kotsopoulos, S. Kartsios and D. Bampzelis, 2015: Using object based methods to verify weather predictions. 5th International conference on Meteorology and Climatology of the Mediterranean, 2-4 March, Istanbul, Turkey
197. **Karacostas, T.**, I. Pytharoulis, I. Tegoulis, D. Bampzelis, S. Kartsios, S. Kotsopoulos, P. Zanis, E. Katragkou, P. Mouskos and K. Tympanidis, 2015: The Development of the DAPHNE Conceptual Model for the Potentiality of Designing a Precipitation Enhancement Project in Thessaly, Greece. In Proc.: 95th AMS Annual Meeting, January 4-8, Phoenix, Arizona, U.S.A. ,
https://ams.confex.com/ams/95Annual/webprogram/Manuscript/Paper261416/Karacostas_et_al_2015.pdf
198. Bampzelis, D., V. Spiridonov, S. Kartsios, I. Pytharoulis, I. Tegoulis and **T. Karacostas**, 2015: Numerical simulation of airborne cloud seeding for the DAPHNE precipitation enhancement project in central Greece. In Proc.: 95th AMS Annual Meeting, January 4-8, Phoenix, Arizona, U.S.A.
199. Kartsios, S., **T. Karacostas**, I. Pytharoulis, I. Tegoulis, S. Kotsopoulos and D. Bampzelis, 2015: Eugenia Kalnay Symposium: Impact of high resolution elevation and land use data on simulated convective activity over Central Greece. In Proc.: 95th AMS Annual Meeting, January 4-8, Phoenix, Arizona, U.S.A.
200. Pytharoulis I., **T. Karacostas**, I. Tegoulis, S. Kotsopoulos and D. Bampzelis, 2015: Predictability of intense weather events over northern Greece. 95th AMS Annual Meeting, 4-8 January, Phoenix, Arizona, U.S.A.
201. Tegoulis I., I. Pytharoulis, **T. Karacostas**, S. Kotsopoulos, S. Kartsios and D. Bampzelis, 2015: Evaluation of the operational numerical weather predictions of the Daphne project. 16th Annual WRF Users' Workshop, 15-19 June, Boulder, Colorado, U.S.A.
202. Katragkou E., S. Kartsios, M. Vavritsa, G. Alexandri, **T. Karacostas**, 2015: Impact of subgrid-scale cloud feedbacks to radiation in a climatic simulation over Europe. In Proc.: European Geosciences Union (EGU) General Assembly 2015, 12– 17/4/2015, Vienna, Austria.
203. Tsikerdekis A., P. Zanis, A.L. Steiner, F. Solmon, V. Amiridis, E. Marinou, E. Katragkou, **T. Karacostas**, 2015: Dust size parameterization in RegCM4: Impact on aerosol burden and radiative forcing, AGU Fall Meeting, 14– 18/12/2015, San Francisco, U.S.A.
204. Pytharoulis I., I. Tegoulis, S. Kotsopoulos, D. Bampzelis, **T. Karacostas** and E. Katragkou, 2015: Verification of the operational high-resolution WRF forecasts produced by WAVEFORUS project. 16th Annual WRF Users' Workshop, 15-19 June, Boulder, Colorado, U.S.A.
205. Katragkou E., M. Vavritsa, S. Kartsios, G. Alexandri, I. Pytharoulis, **T. Karacostas**, 2016: Sensitivity study of convective cloud feedbacks on radiation and impacts on precipitation. International Conference on Regional Climate-CORDEX 2016 (ICRC-CORDEX 2016), 17-20 May 2016, Stockholm, Sweden.
206. **Karacostas, T. S.**, I. Pytharoulis, I. Tegoulis, D. Bampzelis, S. Kartsios, S. Kotsopoulos, P. Zanis, E. Katragkou and K. Tympanidis, 2017: The DAPHNE Conceptual Model for Designing a Precipitation Enhancement Project in Thessaly, Greece. 287-294. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
207. Krestenitis, Y., I. Pytharoulis, **T. S. Karacostas**, Y. Androulidakis, C. Makris, K. Kombiadou, I. Tegoulis, V. Baltikas, S. Kotsopoulos and S. Kartsios, 2017: Severe Weather Events and Sea Level Variability over the Mediterranean Sea: The WaveForUs Operational Platform. 63-68. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
208. Pytharoulis, I., I. T. Matsangouras, I. Tegoulis, S. Kotsopoulos, **T. S. Karacostas** and P.T. Nastos, 2017: Numerical Study of the Medicane of November 2014. 115-122. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
209. Kartsios, S., **T. S. Karacostas**, I. Pytharoulis and A.P. Dimitrakopoulos, 2017: The Role of Heat Extinction Depth Concept to Fire Behavior: An Application to WRF-SFIRE Model. 137-142. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric

- Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
210. Tegoulis, I., S. Kartsios, I. Pytharoulis, S. Kotsopoulos and **T. S. Karacostas**, 2017: The Influence of WRF Parameterisation Schemes on High Resolution Simulations over Greece. 3-8. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 211. Grimpylakos, G., K. Albanakis and **T. S. Karacostas**, 2017: Watershed Size, an Alternative or a Misguided Parameter for River's Waterpower? Implementation in Macedonia, Greece. 295-302. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 212. Bampzelis D., and **T. S. Karacostas**, 2017: Diurnal Distribution of Storm Characteristics in Central Macedonia during the Warm Season of the Year Using a C-Band Weather Radar. 317-322. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 213. Tympanidis, K., **T. S. Karacostas** and D. Bampzelis, 2017: Rain Enhancement Feasibility Potential of Orographic Clouds over Northern Greece. 323-328. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 214. Douka, M., **T. S. Karacostas**, E. Katragkou and C. Anagnostopoulou, 2017: Annual and Seasonal Extreme Precipitation Probability Distributions at Thessaloniki Based Upon Hourly Values. 521-528. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 215. Tsikerdekis, A., P. Zanis, A.L. Steiner, F. Solmon, V. Amiridis, E. Marinou, E. Katragkou and **T. S. Karacostas**, 2017: Simulated Dust Over the Sahara and Mediterranean with a Regional Climate Model (RegCM4). 615-620. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 216. Dagkli V., and **T. S. Karacostas**, 2017: Event-Based Climatology and Synoptic Conditions Associated with Fog at the "Macedonia" Airport. 635-642. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 217. Vavritsa, M., E. Katragkou, S. Kartsios, I. Pytharoulis and **T. S. Karacostas**, 2017: Sensitivity Study of Cloud-Radiation Feedbacks in a Regional Climate Model Simulation over Europe. 677-682. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 218. Pavlidis, V., E. Katragkou, P. Zanis and **T. S. Karacostas**, 2017: Evaluation of Summer Temperature and Precipitation of EURO-CORDEX Regional Climate Simulations. 707-712. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095-0.
 219. Katragkou, E., I. Gkotovou, S. Kartsios, V. Pavlidis, K. Tsigaridis, M. Trail, L. Nazarenko and **T. S. Karacostas**, 2017: AUTH Regional Climate Model Contributions to EURO-CORDEX. 741-746. In: Perspectives on Atmospheric Sciences, Vol. 1. Edited by: T. S. Karacostas, A. F. Bais and P. T. Nastos, Springer Atmospheric

- Sciences. Springer-Verlag Berlin Heidelberg, 1259pp. ISBN 978-3-319-35094-3, ISBN 978-3-319-35095-0 (eBook), DOI 10.1007/978-3-319-35095
220. **Καρακώστας, Θ.**, 2017: Κλιματικές μεταβολές: Σύγχρονες τάσεις. Κλιματική Αλλαγή: 1ο Πανελλήνιο Συνέδριο, 9-10 Ιουνίου, Καρδίτσα. (Προσκεκλημένη Ομιλία).
 221. Βουδούρης Κ., Χ. Αναγνωστοπούλου, Ε. Κολοκυθά, Π. Βενετσάνου, Ι. Πυθαρούλης και **Θ. Καρακώστας**, 2017: Επιπτώσεις των κλιματικών αλλαγών στα υπόγεια νερά και μέτρα προσαρμογής: Η περίπτωση της Θεσσαλίας. Κλιματική Αλλαγή: 1ο Πανελλήνιο Συνέδριο, 9-10 Ιουνίου, Καρδίτσα.
 222. Roupa, P., and **T. S. Karacostas**. 2018: A 10-year climatology of lightning for Macedonia, Greece. Proceedings, 4th International Scientific Conference, Geobalcanica 2018, Ohrid, FYROM, 69-78.
 223. Antoniou, J., and **T. S. Karacostas**. 2018: The development of a model-algorithm for predicting hailstorms in central Macedonia, Greece. 4th International Scientific Conference, Geobalcanica 2018, Ohrid, FYROM, 61-68.
 224. Roupa P., E. Avgoustoglou, **T. Karacostas**, H. Feidas and I. Pytharoulis. 2018: A 10-year climatology of lightning for Thessaly, Greece. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 225. Papaevangelou N., I. Pytharoulis and **T. Karacostas**. 2018: Analysis of an explosive cyclone in the Ionian Sea in February 2012. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 226. Pytharoulis I., S. Kartsios, I. Tegoulis, H. Feidas, I. Matsangouras, **T. Karacostas** and P. Nastos. 2018: The impact of the model configuration on the simulation of a Mediterranean tropical-like cyclone. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 227. Mouskos P., and **T. Karacostas**, 2018: A classification of upper-air synoptic circulation types associated with precipitation over the Eastern Mediterranean. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 228. Patsika, Chr., and **T. Karacostas**. 2018: An estimation of daily precipitation amounts over Thessaly. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 229. Pavlidis V., E., Katragkou, P., Zanis and **T. Karacostas**. 2018: The direct effect of aerosol on shortwave radiation at the surface in regional climate model simulations over Europe. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 230. Athanasiou F., S., Kartsios, **T. Karacostas**, I. Pytharoulis and A., Kampouri. 2018: Representation of the Atmospheric Boundary Layer's processes in a Numerical Weather Forecasting model during an extreme precipitation event 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 231. **Karacostas T.**, I., Pytharoulis, I., Tegoulis, S., Kartsios, D., Bampzelis and K., Tympanidis. 2018: Near-present and future precipitation characteristics in Thessaly area, being related to the upper-air synoptic circulation types. 14th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2018, Alexandroupolis, Greece.
 232. Roupa P., E. Avgoustoglou and **T. S. Karacostas**. 2021: Spatial and temporal relationships between total flash rates and radar reflectivity volumes under convection. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 427-432, Ioannina, Greece.*
 233. Tegoulis I., Pytharoulis I., Zanis P. and **T. S. Karacostas**. 2021: Evaluating High Resolution Numerical Weather Predictions Using Spatial Verification Methods. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 911-915, Ioannina, Greece.*
 234. Kartsios S., Pytharoulis I., **Karacostas Th.** and Katragkou E., 2021: Assessment of continental weather forecasts in the framework of AfriCultuReS project. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 798-809, Ioannina, Greece.*

235. Christodoulou M., Pytharoulis I. and **T. S. Karacostas**. 2021: The July 10, 2019 Catastrophic Supercell over Northern Greece. Part I: Observational Analyses. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 754-761, Ioannina, Greece.*
236. Pavlidis V., Katragkou E., Zanis P., **Karacostas T.** 2021: Impact of effective radii communication between microphysics and radiation schemes. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 718-722, Ioannina, Greece.*
237. Topouzi M., Farmakis N., **Karacostas Th.**, Antoniou I., and Douka M., 2021: Determination of the theoretical distribution functions of the extreme air temperature values in Thessaloniki, Greece. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 916-922, Ioannina, Greece.*
238. Pytharoulis I., **Karacostas T.**, Christodoulou M. and Matsangouras I., 2021: The July 10, 2019 Catastrophic Supercell over Northern Greece. Part II: Numerical modelling. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 885-890, Ioannina, Greece.*
239. Kampouri A., Amiridis V., Solomos S., Gialitaki A., Spyrou C., Marinou E., Papagiannopoulos N., Mona L., Georgoulas A.K., Akritidis D., Pytharoulis I., **Karacostas T.** and Zanis P., 2021: Investigation of volcanic emissions at Antikythera PANGAEA station. *The 15th International Conference on Meteorology, Climatology and Atmospheric Physics. In: COMECAP 2021 Conference Proceedings. Edited by: A. Bartzokas and P. Nastos (ISBN 978-960-233-267-2), 71-76, Ioannina, Greece.*

DISTINCTIONS – SIGNIFICANT RESEARCH ACHIEVEMENTS

- 1969 - 1973: **Scholarship** from the **Greek State Scholarship Foundation** for all the undergraduate years of my studies at the Department of Mathematics of the Aristotle University of Thessaloniki.
- 1975 - 1977: **Scholarship** from the **National Science Foundation (NSF) of U.S.A.**, through the Department of Atmospheric Sciences, School of Engineering of the University of Wyoming [DES (ATM) 75-02515].
- 1978 - 1981: **Scholarship** from the **Bureau of Reclamation, Department of the Interior of U.S.A.**, through the Department of Atmospheric Sciences, School of Engineering of the University of Wyoming [14-06-6801 and 7-07-93-VOOO1].
- 1979: **Invitation**, by the **World Meteorological Organization (WMO)**, for the design of the **Turbulent Diffusion** part of the **“Precipitation Enhancement Project (PEP)” of the United Nations**.
- 1980: **Invited speaker** from the **World Meteorological Organization (WMO)**, at the **Third World Meteorological Organization Scientific Conference on Weather Modification**, at Clermont-Ferrand, FRANCE.
- 1981: **Nominated**, by the **Scientific Committee of the University of Wyoming - USA**, for the **“1982 Award”**, as the **best Researcher Graduate Student**.
- 1982: **Invited lecturer** at the workshop of the **Advanced Study Institute on Mesoscale Meteorology: Observations, Theory, and Models**. Bonas, FRANCE.
- 1983: **Nominated**, by the **Greek National Meteorological Service**, for the **“1983 Award” of WMO**, as the **best Young Research Scientist**.

- 1983 - 1984: **Design** of the “**Greek National Hail Suppression Program**”. This program was scientifically accepted by the **WMO** and it is still operational, up to today.
- 1984 - 1988: **Scientific Director** of the Greek National Hail Suppression Program.
- 1986: **"KF-theory"**, that is, “**Karacostas-Flocas – theory**”:
After the publication of the paper entitled: “*The Development of a "Bomb" over the Mediterranean Area*”, the explosive cyclogenesis with similar thermodynamic and dynamic characteristics are **referred in the literature as "KF"**, after the initials of the authors: **Karacostas** and **Flocas**.
- 1989 - 2000: Member of the **Scientific Committee** of the **European Union** on **Weather Modification**.
- 1989: Member of the **Scientific Committee** of the **European Union** on **Meteorological Radars**.
- 1989 - 1999: **Scientific and Advisory International Committee** (5-members) of the **Cloud Physics Rain Enhancement Project** in South Italy, “**Progetto Pioviggia**”.
- 1992 - 1993: **Design** of the “**Greek Rain Enhancement Project**”.
- 1993: **Invited Presentation** of the “**5-YEAR PLAN PROGETTO PIOGGIA**” to the **Italian Minister for Agriculture and Forestry, Senator A. Dina**, and to the **Italian public**, within the overall Italian “**PROGETTO AGUA**”, April, Rome.
- 1994: Member of **Evaluation Committee** of University faculty member at **University of Israel**.
- 1995: **Invited Speaker** of the **International Decade for Natural Disaster Reduction (IDNDR)** of **United Nations**, at the “**Seminar on the Role of Universities and Scientific Institutions in Disaster Reduction**”, Geneva, Swiss.
- 1995: Member of the **World Meteorological Organization (WMO) Meeting of Experts** to Review the **Present Status of Hail Suppression**, Golden Gate National Park, **South Africa**.
- 1996: **Invited Lecture** at **International Symposium on Weather Modification**, **University of Rome**, 23 May 1996.
- 1996: **Invited paper** at the **International Symposium on Weather Modification in the Mediterranean**, **University of Bari, Italy**.
- 1997: **External Advisor Reviewer** of the Alberta Hail Suppression project, **Canada**
- 1999: Member in the WMO meeting for the **planning of Precipitation Enhancement Projects** in the **Mediterranean, S.E. Europe and Middle East** countries (MEDSEEME-PEP), **Monselice, Italy**.
- 1999 - 2000: **Evaluation** of the “**Greek National Hail Suppression Program**”.
- 2003: Member of the **World Meteorological Organization (WMO) Meeting of Experts** to Review the **Present Status of Hail Suppression**, **Nalchik, Russia**.
- 2002 - **External Evaluator** of the Scientific Examining Committee of six (6) **Doctor Degree Dissertations** and ten (10) **Master of Science Degree Theses**, for the Faculty of Science of several Universities abroad, including mainly the **Cairo University, Egypt**.
- 2010: Member of **Evaluation Committee** of the University faculty member at the **University of Israel** (1994-95), and at the **University of the Kingdom of Saudi Arabia** (2010).
- 2010 - 2015: Elected **Vice President** of the **Research Committee** of the **Aristotle University of Thessaloniki, Greece**.
- 2016: **Key-note speaker** at the **2d International Scientific Conference**, **Geobalcanica 2016, Scopia, FYROM**.
- 2017 **Editor of the Book**: Perspectives on Atmospheric Sciences. SPRINGER International Publishing, Volumes I and II, pages 1259, DOI 10.1007/978-3-319-35095-0.
- 2017 - **Co-Editor-in-Chief**: **SPRINGER, Acta Geophysica, Section Atmospheric Sciences**
- 2017 - **Associate Editor**: **ELSEVIER, Atmospheric Research**
- 2017 - **Associate Editor**: **HINDAWI, Advances in Meteorology**

2018: **Scientific reviewer** to more than 20 different **scientific journals**
Key-note speaker at the **4th International Scientific Conference**, Geobalcanica 2018, **Scopia**, **FYROM**.