

Logothetis Stavros-Andreas

PHYSICIST, MSc, PHD CANDIDATE

Zakinthou 43 – Patras – Greece – 26441

☎ (+30) 69 78 060 722 | ✉ stavroslogothetis@gmail.com | 📱 stavros18 | 🏠 Stavros A. Logothetis | 📧 Stavros Logothetis

Education

University of Patras

Patra, Greece

BSc IN PHYSICS (7.63/10)

Oct. 2013- Jul. 2017

- Physics with major in : Energy and Environment
- Thesis: “Calibration of an Electronic Hygrometer”

University of Patras

Patra, Greece

MSc IN APPLIED METEOROLOGY AND ENVIRONMENTAL PHYSICS (9.89/10)

Oct. 2017- Feb. 2019

- Thesis: “Estimation of aerosol effect on the energy balance of the Earth-Atmosphere system”

University of Patras

Patra, Greece

PHD IN ATMOSPHERIC SCIENCES

Mar. 2019- present

- Affiliation: Laboratory of Atmospheric Physics, Physics Department
- Field: The investigation of the impact of aerosols and clouds to the incoming solar radiation.

Experience

Department of Physics, University of Patras

Patra, Greece

TEACHING ASSISTANT

Feb. 2018 - Exp. Jun. 2018

- Physics Laboratory II: Mechanics and Fluid Mechanics (B.Sc Programme of the Department of Physics, University of Patras / 2nd semester).

Department of Physics, University of Patras

Patra, Greece

TEACHING ASSISTANT

Oct. 2019 - Exp. Jan. 2020

- Physics Laboratory III: Thermodynamics – Waves - Optics (B.Sc Programme of the Department of Physics, University of Patras / 3rd semester).

Department of Physics, University of Patras

Patra, Greece

TEACHING

Feb. 2019 - Exp. Feb. 2020

- Measurements and Data Handling in Atmospheric Sciences (M.Sc Programme of the Laboratory of Atmospheric Physics, Department of Physics, University of Patras / 1nd semester).
- Introduction of basic skills to analyze and visualize atmospheric data sets with python.

Laboratory of Atmospheric Physics, Department of Physics, University of Patras

Patra, Greece

DATA SCIENTIST/RESEARCHER

Mar. 2019 - present

- Researcher and innovation programme “PANhellenic infrastructure for Atmospheric Composition and climatE, chAnge, PANACEA”.
- Research on Aerosol-Clouds-Radiation interaction.

ITskills

ECDL Certification

PROFICIENT IN ALL MS OFFICE

- Word, Excel, Power Point etc.

Proficient in Data Analysis with Python, MATLAB and R

PYTHON LIBRARIES: NUMPY, PANDAS, MATPLOTLIB, SEABORN, SCIPY, SCIKIT-LEARN AND XARRAY.

- Highly efficient Data Scientist/Data Analyst with 3+ years of experience in Data Analysis, Machine Learning, Data mining with large data sets of Structured and Unstructured data, Data Validation, Predictive modeling, Data Visualization, Web Scraping in Python.

Proficient in LibRatran v-2.0.1 software package

A RADIATIVE TRANSFER MODEL (RTM).

- Applications of aerosols-cloud interaction and their impacts on solar radiation.

Languages

Greek - Native | English – Michigan University Certificate (C2)

Additional Education & Training

Introduction to Python

MATHESIS INTRODUCTORY ONLINE COURSES

Nov. 2017 - Dec. 2017

- Introduction of basic python libraries and data analysis.

Data Analysis Tools for high Resolutions Air Quality Satellite Datasets

NASA'S APPLIED REMOTE SENSING TRAINING PROGRAM (ARSET)

Jan. 2018

- Data analysis application in Python.

Monitoring Tropical Storms for Emergency Preparedness

NASA'S APPLIED REMOTE SENSING TRAINING PROGRAM (ARSET)

May. 2018

- Identify remote sensing data and tools relevant to tropical storms.
- Monitor conditions before, during, and after a storm using remote sensing data.
- Understand how remote sensing data can be used in decision-making activities.

2nd HAAR Summer School

THEORY AND PRACTICE OF AEROSOL CHEMISTRY AND ENGINEERING FOR CLIMATE, AIR QUALITY, EMISSIONS AND

May. 2018

HEALTH EFFECTS, HANDS-ON EXPERIENCE ON:

- In-situ instruments for measuring the concentration, size and chemical composition of atmospheric particles.
- Systems for probing the vertical distribution of the atmospheric aerosol.
- New integrative approaches using models and observations for impact assessment.

Learning path for Greece | Cyprus | Malta on the use of the C3S Climate Data Store

COPERNICUS USER LEARNING SERVICES

Nov. 2019 - Dec. 2019

- Case study on: the impact of Heat stress to Human health in Greece.

An Inside Look at how NASA Measures Air Pollution

NASA'S APPLIED REMOTE SENSING TRAINING PROGRAM (ARSET)

May. 2020

- List the pollutants that can be observed by NASA satellites.
- Find and download imagery for NO2 and aerosols/particles.
- Describe the capabilities and limitations of NASA NO2 and aerosol measurements.

Training School and Workshop on Dust Aerosol Detection and Monitoring

EUMETSAT | WMO SDS-WAS REGIONAL CENTER

Nov. 2021

- Dust ground based observations.
- Modelling and forecasting Sand and Dust Storms - Model evaluation.
- Workshop performing analysis with multiple datasets on real case of dust event monitoring and forecast.

Conference presentations

- 1. Aerosol Optical Properties and Direct Radiative Forcing Based on Measurements From the Aerosol Robotic Network (AERONET) in Europe and Mediterranean Area.** **Logothetis S.-A**, Salamalikis V, Kazantzidis A. *Living Planet Symposium*. MiCo – Milano Congressi Milan, Italy. May 13-17, 2019.
- 2. Aerosol classification in Europe, Middle East, North Africa and Arabian Peninsula based on AERONET Version 3.** **Logothetis S.-A**, Salamalikis V, Kazantzidis A. *First Scientific Conference PANACEA*. Heraklion, Crete, Greece. September 23-24, 2019.
- 3. Aerosol Classification and Bias-Adjustment of Global Horizontal Irradiance for Middle East-North Africa Region.** Kazantzidis A, Salamalikis V, **Logothetis S.-A**, Vamvakas I. *SolarPACES*. Daegu, South Korea. October 1-4, 2019.
- 4. The influence of different aerosol properties and types on direct aerosol radiative forcing and efficiency in Europe and Mediterranean area.** **Logothetis S.-A**, Salamalikis V, Kazantzidis A. *Second Scientific Conference PANACEA*. Web Conferencing. September 29 – October 1, 2020.
- 5. Global trends of Aerosol and Dust Optical Depth based on MIDAS fine resolution dataset during 2003-2017.** **Logothetis S.-A**, Salamalikis V, Gkikas A, Kazadzis S, Kazantzidis A. *Second Scientific Conference PANACEA*. Web Conferencing. September 29 – October 1, 2020.
- 6. Solar radiation forecasts based on all-sky cameras.** **Logothetis S.-A**, Salamalikis V, Wilbert S, Remund J, Zarzalejo L, Xie Y, Nouri B, Ntavelis E, Nou J, Visser L, Sengupta M, Pó M, Chauvin R, Grieu S, Sark W.-V, and Kazantzidis A. *12 National Conference in Renewable Energy Sources*. Thessaloniki, Greece. April 7 – 9, 2021.
- 7. Forecasting of solar irradiance and ramp events with all-sky imagers.** **Logothetis S.-A**, Salamalikis V, Wilbert S, Remund J, Zarzalejo L, Xie Y, Nouri B, Ntavelis E, Nou J, Visser L, Sengupta M, Pó M, Chauvin R, Grieu S, Sark W.-V, and Kazantzidis A. *EMS Annual Meeting 2021*. Online. September 6 – 10, 2021.
- 8. Aerosol optical depth prediction using machine learning techniques.** **Logothetis S.-A**, Salamalikis V, Kazantzidis A. *EMS Annual Meeting 2021*. Online. September 6 – 10, 2021.
- 9. Global trends of Dust Optical Depth, over the period 2003-2017, based on MIDAS fine resolution dataset.** **Logothetis S.-A**, Salamalikis V, Gkikas A, Kazadzis S, Amiridis V, Kazantzidis A. *15 International conference on Meteorology, Climatology and Atmospheric physics - COMECAP*. Ioannina, Greece. September 26 – 29, 2021.
- 10. Aerosol optical depth retrieval from ground-based surface solar radiation measurements using machine learning techniques.** **Logothetis S.-A**, Salamalikis V, Kazantzidis A. *15 International conference on Meteorology, Climatology and Atmospheric physics - COMECAP*. Ioannina, Greece. September 26 – 29, 2021.

Publications in peer reviewed journals

1. Aerosol classification in Europe, Middle East, North Africa and Arabian Peninsula based on AERONET Version 3, Logothetis S.-A, Salamalikis V and Kazantzidis A. Atmos. Res., 239, doi:10.1016/j.atmosres.2020.104893, 2020.

2. The impact of different aerosol properties and types on direct aerosol radiative forcing and efficiency using AERONET Version 3, Logothetis S.-A, Salamalikis V and Kazantzidis A. Atmos. Res., 250, doi:10.1016/j.atmosres.2020.105343, 2021

3. 15-year variability of desert dust optical depth on global and regional scales, Logothetis S.-A, Salamalikis V, Gkikas A, Kazadzis S, Amiridis V, and Kazantzidis A. Atmos. Chem. Phys., doi:10.5194/acp-2021-418, 2021.

4. Benchmarking of solar irradiance nowcast performance derived from all-sky imagers, Logothetis S.-A, Salamalikis V, Wilbert S, Remund J, Zarzalejo L, Xie Y, Nouri B, Ntavelis E, Nou J, Hendrikx N, Visser L, Sengupta M, Pó M, Chauvin R, Grieu S, Sark W.-V, and Kazantzidis A.. Renew. Energy. (under review)

Reviewer for research articles

Atmospheric Chemistry and Physics | Atmospheric Environment | International Journal of Climatology