



Eirini Boleti, PhD
Curriculum Vitae

PERSONAL DETAILS

Address Kallergi 16, 73100, Chania, Greece
Phone +30 697 050 7259
E-mail eirini.boleti@gmail.com
Birth date 21 June 1982

WORK EXPERIENCE

Postdoctoral researcher

August 2022-now

Technical University of Crete - Atmospheric Environment & Climate Change Group

Studying the effect of wildfires on atmospheric composition
Characterization of high-latitude fires (AXA project)
Analysis of satellite data describing wild fires
Earth system modeling

Research associate

July 2021-December 2021

Mobilair Lab for Natural Risks — Climate Impact Research Group

Prediction of car loss damages from hail with statistical modelling
Analysis of radar hail data
Define parameters for prediction of insurance hail losses
Implementation and communication of hail research (Mobilair)

Natural Catastrophe analyst

October 2020-March 2021

SCOR

Agriculture Pricing & Modeling

Risk Modeling for estimation of natural catastrophes risk on agriculture
Catastrophe models (AIR)
Calculation of expected losses and premiums either for potential new clients or renewing existing contracts
Restating of historical portfolio information
Handling and analysing client data (losses, claims etc) as well as meteorological data

March 2020-September 2020

Natural Catastrophe Models R&D

Impact of climate change on key Natural Catastrophe perils: literature review and report
Design of scenarios for climate change effect on hazards
Adjustment of models for climate change effect

Consultant

November 2018-October 2019

TNO, the Netherlands Organisation for applied scientific research
Department of Climate, Air & Sustainability, Utrecht, the Netherlands

Modeling studies for air quality assessments, forecasts, deposition and source apportionment
Data analysis and visualization of model output and model validation
Acquisition of new projects
Compile and deliver project reports
Represent the team in international conferences, forums and plenary meetings
Provide stakeholders with research output as a guideline to derive strategies for improving air quality

Research Associate

May 2015-October 2018

Empa, Air Pollution/Environmental Technology Laboratory, Dübendorf, Switzerland

Application of machine learning techniques for air quality
Analysis of long-term air pollutants data sets
Development of statistical methods for long-term and seasonal patterns recognition
Application of clustering techniques to identify similar measuring stations in Europe
Investigating the effect of policy making decisions on air quality

Physics tutor

Sept. 2010 - June 2013

Private, Switzerland

Teaching physics and mathematics to Gymnasium students
Teaching mathematics to university students

Physics teacher

Sept. 2006 - June 2010

Private school "Methodos", Greece

Teaching physics, mathematics and chemistry to High school students
Preparatory courses for the University entrance exams for senior High school students
Responsible for the preparation of teaching material
Spokesperson on behalf of the school, responsible for communicating with the parents

EDUCATION

PhD in Statistical Analysis of Air Pollutants Concentrations

May 2015 - November 2019

Empa, Air Pollution/Environmental Technology Laboratory
EPFL, Air Particle Research Laboratory

Long-term trends and seasonality of air pollutants concentrations
Time scale decomposition of ozone concentrations time series
Spatial and temporal analysis of large data sets
Clustering techniques for identification of stations with similar behavior

MSc. Atmospheric and Climate Science

Sept. 2013 - March 2015

ETH Zürich, Institute of Atmosphere and Climate

Quantitative understanding of climate processes and their interactions
In depth understanding of the climate system, aspects of the atmosphere and weather phenomena
Training in numerical modeling of weather and climate

MSc. Computational Physics

Sept. 2006 - Febr. 2009

Aristoteles University of Thessaloniki (Greece), Department of Physics

Training in various programming languages
Computer simulations of physical phenomena

Degree (Diploma) in Physics

Sept. 2000 - Sept. 2006

Aristoteles University of Thessaloniki (Greece), Department of Physics

Specialization field: "Atmosphere and Environment Physics"

TECHNICAL SKILLS

Data analysis: R(advanced), PYTHON(intermediate)

Risk Modeling (Catastrophe models, Loss models)

Statistical modeling

High-performance computing environments

Climate models, Chemistry-transport models

OS: LINUX and WINDOWS

Typesetting: L^AT_EX, WORD

Office suits: Open/Libre Office, Microsoft Office

PROJECTS

- "Prediction of car loss damages from hail", Universität Bern - Oeschger Center & Mobiliar Lab for Natural Risks
- "Climate Change scenario impact study; A P&C study focusing on physical risks due to climate change"
- *Brightskies*, collaboration with Airbus Defense & Space for assimilation of satellite data in air quality model
- Source apportionment for quantifying contribution of sectors and countries on local concentrations of air pollutants (TOPAS, <https://topas.tno.nl/>)
- Nitrogen deposition in Germany (PINETI), study for the German government on deposition of nitrogen components over the last 10 years.

LANGUAGES

English (Professional level,C1)

German (Professional level,C1)

Greek (mother tongue)

REFERENCES

Prof. Dr. Olivia Romppainen-Martius (Professor at Climate Impact Research group in University of Bern, olivia.romppainen@giub.unibe.ch)

Junaid Seria (Head of R&D at SCOR, JSERIA@scor.com)

Prof. Dr. Martijn Schaap, (Professor at Freie Universität Berlin and Senior scientist at TNO, martijn.schaap@tno.nl)