

# Panayiotis Kalkavouras

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Date of Birth: 7 April 1986, Greek nationality



## I. EDUCATION

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- Oct 2016 -present**      **Doctor of Philosophy (PhD) in Atmospheric Chemistry and Physics**  
University of Crete [UOC], Faculty of Science, Department of Chemistry, Environmental Chemical Processes Laboratory  
*«New Particle Formation (NPF) in the Eastern Mediterranean and its role in the formation of Cloud Condensation Nuclei (CCN) and Cloud Droplet Number (CDN)»*  
Supervisor: Prof. Nikolaos Mihalopoulos
- Apr 2015**                **Master of Science (MSc) in Applied Physics – Environmental Physics**  
National and Kapodistrian University of Athens [UOA], Faculty of Science  
*«Simultaneous gas and aerosol in-situ ground level measurements in the Eastern Mediterranean during summertime Etesians»*  
Supervisor: Assoc. Prof. Maria Tombrou-Tzella
- Mar 2012**                **Bachelor of Science (BSc) in Physics**  
National and Kapodistrian University of Athens [UOA], Faculty of Science

## II. AWARDS - SCHOLARSHIPS

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- Aug 2019 - 2022**      Doctoral fellowship granted by Stavros Niarchos Foundation (SNF) for the establishment a geoscience and climate observatory on Antikythera (PANGEA).
- Aug 2018 -2019**      Doctoral fellowship supporting young researchers. Operational Programme: Human Resources Development, Education and Lifelong Learning.

## III. WORKING - FIELD EXPERIENCE

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- Oct 2016 - present**      Research fellow. National Observatory of Athens (NOA). Institute for Environmental Research and Sustainable Development (IERSD).  
*Being an active field worker, primarily at the Thissio Aerosol and Air Monitoring Station and other field campaigns, has provided me with significant experience in operating several atmospheric monitoring instruments, for instance: Scanning Mobility Particle Sizer (SMPS), Cloud Condensation Nuclei Counter (CCNc), Aerodyne Aerosol Chemical Speciation Monitor (ACSM), Magee Scientific Aethalometer (AE-33), Nephelometer (TSI, Ecotech), Automatic sampling systems for collecting particulate matter PM<sub>10</sub> or PM<sub>2.5</sub> (Comde Derenda, High Volume Sampler, Digital Sampler), PX-375 Horiba for continuous particulate monitor with X-ray Fluorescence, Various Gas (O<sub>3</sub>, SO<sub>2</sub>, CO, NO, NO<sub>2</sub>, NO<sub>x</sub>) monitors*
- Aug 2018 -2019**      Research fellow. University of Crete [UOC]. Department of Chemistry. Environmental Chemical Processes Laboratory (ECPL).
- May 2013 – Jun 2015**      Research fellow. University of Athens [UOA]. Department of Physics. Section of Environmental Physics and Meteorology. Group of Numerical Applications in the Atmosphere.

### III. RESEARCH DOSSIER

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#### 1. Research Projects

1. PANGEA project, which will establish a state-of-the-art geoscience and climate observatory on the remote island of Antikythera. Contractor: National Observatory of Athens. Scientific Coordinator: Dr. Amiridis, V.
2. PANACEA. PANhellenic infrastructure for Atmospheric Composition and climatE change (01/09/2020 – currently). Funding: NSRF 2014 – 2020 (MIS 5021516). Contractor: National Observatory of Athens. Scientific Coordinator: Dr. Gerasopoulos, E.
3. PiraeusAQ – Specialised air quality measurements in the Port of Piraeus, Greece. Source identification. Funded by Attica Region (2017-2020). Contractor: National Observatory of Athens. Scientific Coordinator: Dr. Gerasopoulos, E.

#### 2. Congress Presentations

1. «*Short-term variability of fine aerosol elemental composition in central Athens during the PANACEA summer campaign: Characteristics and sources*». Grivas, G., Liakakou, E., **Kalkavouras, P.**, Stavroulas, I., Vagianou, K., Tsagkaraki, M., Paraskevopoulou, D., Bougiatioti, A., Gerasopoulos, E., & Mihalopoulos, N., 15<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP 2021 (Ioannina – Greece 2021)
2. «*Regional New Particle Formation as Modulators of Cloud Condensation Nuclei and Cloud Droplet Number in the Eastern Mediterranean*», **Kalkavouras, P.**, Bougiatioti, A., Kalivitis, N., Stavroulas, I., Tombrou, M., Nenes, A., & Mihalopoulos, 37<sup>th</sup> annual conference of American Association for Aerosol Research, AA (Oregon-Canada 2019)
3. «*Contribution of new particle formation to cloud condensation nuclei and cloud droplet number in the eastern Mediterranean*». Kalivitis, N., Kouvarakis, G., Stavroulas, I., **Kalkavouras, P.**, Bougiatioti, A., Tombrou, M., Kanakidou, M., Nenes, A., & Mihalopoulos N., 1<sup>st</sup> Scientific Conference PANACEA 2019 (Heraklion – Greece 2019)
4. «*High Resolution online Aerosol Measurements during the 1st PANACEA Summer Campaign in Athens, Greece*». Liakakou, E., Bougiatioti, A., Grivas, G., Stavroulas, I., **Kalkavouras, P.**, Paraskevopoulou, D., Lianou, M., Gerasopoulos, E., & Mihalopoulos, N., 1<sup>st</sup> Scientific Conference PANACEA 2019 (Heraklion – Greece 2019)
5. «*Effect of anthropogenic sources on total particles and Cloud Condensation Nuclei levels in the Eastern Mediterranean*». **Kalkavouras, P.**, Bougiatioti, A., Zampas, P., & Mihalopoulos, N., 16<sup>th</sup> International Conference on Environmental Science & Technology, CEST 2019 (Rhodes – Greece 2019)
6. «*Aerosol particle number, size distribution and their role as cloud condensation nuclei (CCN) in the Eastern Mediterranean*». **Kalkavouras, P.**, Zampas, P., Bougiatioti, A., & Mihalopoulos, N., 7<sup>th</sup> International Conference on Environmental Management, Engineering, Planning and Economics & SECOTOX 2019 (Mykonos – Greece 2019)
7. «*Aerosol sub-micrometer size distribution in the urban environment of Athens*». **Kalkavouras, P.**, Bougiatioti, A., Stavroulas, I., Pilinis, C., Nenes, A., Gerasopoulos, E., & Mihalopoulos, N. 14<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP 2018 (Alexandroupolis – Greece 2018)

8. «Impact of chemical composition on new particle formation at South Aegean Sea during summertime Etesians». **Kalkavouras, P.**, Bossioli, E., Biskos, G., Mihalopoulos, N., Nenes, A., & Tombrou, M. 13<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP 2016 (Thessaloniki – Greece 2016)
9. «Simultaneous gas and aerosols measurements at Santorini and Finokalia during Etesians». **Kalkavouras, P.**, Bezantakos, S., Bossioli, E., Stavroulas, I., Kouvarakis, G., Protonotariou, A. P., Dandou, A., Biskos, G., Mihalopoulos, N., & Tombrou, M. 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP 2014 (Heraklion – Greece 2014)

### 3. Publications in Scientific Journals

1. «Field Evaluation of Low-Cost PM Sensors (Purple Air PA-II) Under Variable Urban Air Quality Conditions, in Greece», Stavroulas, I., Grivas, G., Liakakou, E., Bougiatioti, A., **Kalkavouras, P.**, Fameli, K. M., Hatzianastassiou, N., Mihalopoulos, N., & Gerasopoulos, E., Atmosphere 2020, 11 (9), 926, <https://doi.org/10.3390/atmos11090926>, 2020.
2. «On the regional aspects of new particle formation in the Eastern Mediterranean: A comparative study between a background and an urban site based on long term observations», **Kalkavouras, P.**, Bougiatioti, A., Grivas, G., Stavroulas, I., Kalivitis, N., Liakakou, E., Gerasopoulos, E., Pilinis, C., & Mihalopoulos, N., Atmos. Res. Volume 239, 104911 DOI10.1016/j.atmosres.2020.104911, 2020.
3. «Sources of total particles and Cloud Condensation Nuclei levels in the Eastern Mediterranean: urban vs remote background environments», Bougiatioti, A., **Kalkavouras, P.**, Zampas, P., & Mihalopoulos, N., Int. J. Environ. Sci. & Nat. Res., DOI: 10.19080/IJESNR.2019.18.555985, 2019.
4. «Regional New Particle Formation as Modulators of Cloud Condensation Nuclei and Cloud Droplet Number in the Eastern Mediterranean», **Kalkavouras, P.**, Bougiatioti, A., Kalivitis, N., Stavroulas, I., Tombrou, M., Nenes, A., & Mihalopoulos, N., Atmos. Chem. Phys., 19, 6185-6203, [doi.org/10.5194/acp-19-6185-2019](https://doi.org/10.5194/acp-19-6185-2019), 2019.
5. «Formation and growth of atmospheric nanoparticles in the eastern Mediterranean: results from long-term measurements and process simulations», Kalivitis, N., Kerminen, V.-M., Kouvarakis, G., Stavroulas, I., Tzitzikalaki, E., **Kalkavouras, P.**, Daskalakis, N., Myriokefalitakis, S., Bougiatioti, A., Manninen, H., Roldin, P., Petäjä, T., Boy, M., Kulmala, M., Kanakidou, M., & Mihalopoulos, N., Atmos. Chem. Phys., 19, 2671-2686, [doi.org/10.5194/acp-19-2671-2019](https://doi.org/10.5194/acp-19-2671-2019), 2019.
6. «New Particle Formation in the South Aegean Sea during the Etesians: importance for CCN production and cloud droplet number», **Kalkavouras, P.**, Bossioli, E., Bezantakos, S., Bougiatioti, A., Kalivitis, N., Stavroulas, I., Kouvarakis, G., Protonotariou, A. P., Dandou, A., Biskos, G., Mihalopoulos, N., Nenes, A., & Tombrou, M., Atmos. Chem. Phys., 17, 175-192, [doi.org/10.5194/acp-17-175-2017](https://doi.org/10.5194/acp-17-175-2017), 2017.

### IV. Technical Tools

Operating systems	Macintosh (Mac), MS Windows, Linux
Programming languages	FORTRAN, Python
Software	MathWorks MATLAB, Wavemetrics Igor Pro, MS office

### V. Speaking Languages

Greek	Native
English	Fluent

