

# Curriculum Vitae

**Maria K. Lianou**

December 2013

## Personal Details

Name :	Maria Lianou
Father's name:	Constantine
Marital status	Married with one child
Professional status:	Scientific Technical Staff of IERSD/ NOA
Email:	<a href="mailto:mlianou@meteo.noa.gr">mlianou@meteo.noa.gr</a>
Address; :	I. Metaxa & Vas. Pavlou, P. Penteli
Telephone number.:	+ 30 210 8109131 (9122)

## Professional Experience

- February 2001-present: Scientific Technical Staff of IERSD/ National Observatory of Athens.
- 1998 – January 2001: Associate Researcher under fixed term contract of IERSD/ National Observatory of Athens, Greece.

## Education

(1994): B.Sc in Physics, from the University of Ioannina.

(1998): MSc in Environmental Physics from the National and Kapodistrian University of Athens.

(2010): Ph.D on Atmospheric Aerosols from the Environmental Engineering School, Technical University of Crete.

## Foreign Languages

- English (Fluently): Proficiency from the University of Michigan.
- Spanish (Very good): Diploma de Espanol como lengua extranjera, Nivel Intermedio.

## Other Qualification

- Unix: Certification for attendance of seminar on Unix Administration Server from the Open Tec ABEE.
- GIS: Spatial Analyst, ArcView
- Microsoft Office 2007, SPSS, Origin.

## ΠΑΝΕΠΙΣΤΗΜΙΑΚΕΣ ΔΙΑΤΡΙΒΕΣ

- **‘Study of the personal exposure to atmospheric aerosols, of their physico-chemical characteristics and their indoor sources’**. PhD thesis, Department of Environmental Engineering, Technical School of Crete, June 2010.
- **‘Study of the meteorological conditions that impact on ozone concentrations in the area of Athens during summer’**. Master degree thesis, Department of Meteorology and Environmental Physics, National and Kapodistrian University of Athens, September 1998.
- **‘Intra-annual variability of relative geostrophic vorticity over Europe, N. Atlantic and N. Africa’**. Thesis under graduation. Meteorology and Climatology Laboratory, Astrogeophysics Section, Department of Physics, University of Ioannina, June 1994.

## Research interests

- Atmospheric aerosols,
- Atmospheric pollution and Air quality (indoor-outdoor),
- Environmental impact.
- Geographical Information System (GIS) Techniques.
- Atmospheric physics.
- Meteorology.

## Participation in Scientific Projects

1. **ISOLE**: "Island Satellite Observation for Local Exploitation", (CEO programme for Ocean and Coasts, 1998-2000).
2. **PRIMAVERA**: "Parks Resources Information Management Via Environmental Remotely sensed data Analysis". (CEO Programme for Environment and Climate, 1998 – 2000)
3. **HYDROSCOPE**: Production of a hydro-meteorological database and planning of a WAN (Wide Area Network), STRIDE project.
4. **FORMIDABLE**: Friendly Operational Risk Management through Interoperable Decision Aid Based on Local Events (2000-2002).
5. **RIVM**, European Topic Centre/ Air Quality.

6. **MANTLE**: "Mapping Night-time Light Emissions in the EU using satellite-observed visible-near infrared emissions as policy tool". Information Society Technologies Programme, (1/11/2000-2003).
7. **RUPIOH**: Relationship between Ultrafine and fine Particulate matter in Indoor and Outdoor air and respiratory Health (2002-2005).

## Publications

1. Petrakis M., Psiloglou B., Lianou M., Keramitsoglou I., Cartalis C., 2005: Evaluation of forest fire risk and fire extinction difficulty at the mountainous park of Vikos-Aoos, Northern Greece: use of remote sensing and GIS techniques – Int. J. of Risk Assessment and Management, Vol. 5, No.1, pp. 50 – 65.
2. Chalkias C., Petrakis M., Psiloglou B., Lianou M., 2006: Modelling of light pollution in suburban areas using remotely sensed imagery and GIS, Journal of Environmental Management, 79 (1), pp. 57-63.
3. Lianou M., Chalbot M.-C., Kotronarou A., Kavouras I.G., Karakatsani A., Katsouyanni K., Puustinen A., Hoek G., 2007: Dependence of home outdoor particulate mass and number concentrations on residential and traffic features in urban areas, Journal of the Air and Waste Management Association, 57 (12), pp. 1507-1517.
4. Hoek G., Kos G., Harrison R., de Hartog J., Meliefste K., ten Brink H., Katsouyanni K., Hameri K., 2008: Indoor-outdoor relationships of particle number and mass in four European cities, Atmospheric Environment, Vol. 42 (1), pp. 156-169.
5. Lianou M., Chalbot M.-C., Kavouras I. G., Kotronarou A., Karakatsani A., Analytis A., Katsouyanni K., Puustinen A., Hameri K., Vallius M., Pekkanen J., Meddings C., Harrison R. M., Ayres J. G., Brick H., Kos G., Meliefste K., Hartog J., Hoek G., 2011: Temporal variations of atmospheric aerosol in four European urban areas, Environ. Science Pollutant Res., DOI 10. 1007/s11356-011-0471-y
6. Gini M., Lianou M., Chalbot M. C., Kotronarou A., Kavouras I. G., Helmis C. G., 2012: Quantification of Environmental Tobacco Smoke Contribution on Outdoor Particulate Aliphatic and Polycyclic Aromatic Hydrocarbons, Arch. Environ. Contam. Toxicol., DOI 10.1007/s00244-012-9844-6.
7. Chalbot M.-C., Vei I.-C., Lianou M., Kotronarou A., Karakatsani A., Katsouyanni K., Hoek G., Kavouras I.-G., 2012: Environmental tobacco smoke aerosol in non-smoking households of patients with chronic respiratory diseases, Atmospheric Environment, Vol. 62, pp. 82-88.
8. Lianou M., Chalbot M–C, Vei I–C., Kotronarou A., Kavouras I. G., Hoek G., Hameri K., Harrison R. M., 2013: The Impact of Wind Conditions on Particle Mass Concentrations in four European urban areas, Global Network for Environmental Science and Technology (GNEST), Special Issue.
9. Chalbot M–C, Lianou M., Vei I–C., Kotronarou A., Kavouras I. G., 2013: Spatial attribution of sulfate and dust aerosol sources in an urban area using receptor modelling coupled with Lagrangian trajectories, Atmospheric Pollution Research 4 pp. 346–353.

10. Lianou M., Chalbot M-C., Vei I-C., Kotronarou A., Kavouras I.G., Hoek G., Hameri K., Harrison R.M., 2013: The impact of wind on particle mass concentrations in four European urban areas, *Global NEST Journal*, Vol 15, No 2, pp 188-194.

#### **Publications in Conferences under review**

1. Metaxas D., Bartzokas A., Lianou M., 1994: The variability of the relative geostrophic vorticity in Europe, the Atlantic and N. Africa during the year. Proceedings of the International Symposium/Workshop on Climatic Variability and Impact to Agriculture (N. R. Dalezios ed.), Univ. of Thessaly, Volos, 21 April 1994, pp. 12-22.
2. Petrakis M., Psiloglou B. and Lianos M., 1999: DOAS air quality measurements in Athens, Air Quality in Europe: Challenges for the 2000s, Venice, Italy, 19-21 May.
3. Petrakis M., Psiloglou B. and Lianos M., 1999: The coverage of Athens area with air quality information, Air Quality in Europe: Challenges for the 2000s, Venice, Italy, 19-21 May.
4. Petrakis M., Psiloglou B., Keramitsoglou I., Cartalis C., Lianou M., 2000: Management of the Vikos-Aoos Greek Mountainous Park", Poster presentation in the Advanced Techniques for the Assessment of Natural Hazards in Mountainous Areas, Igls/Innsbruck, Austria, 5-7 June, 2000.
5. Petrakis M., Psiloglou B., Lianou M., 2000: Air quality control with DOAS system, 5<sup>th</sup> Hellenic scientific conference on Meteorology – Climatology and Atmospheric Physics, Thessaloniki, Greece, 28-29 Sept.
6. Petrakis M., Psiloglou B., Lianou M., Garoufalakis I., Anousakis N. and Sampani A., 2000: Monitoring of atmospheric pollutants, during the summer period with DOAS system, Conference of 'Renewable energy sources technologies & Environment. Intended solutions for Greece', Athens, 11-12 December.
7. Petrakis M., Cartalis C., Psiloglou B., Keramitsoglou I., Lianou M., 2001: Use of Geographic Information Systems (GIS) and Remote Sensing for the management of National Parks. Application on the National park Vikos-Aoos, 3<sup>rd</sup> Inter-scientific conference of NTUA, 'The integrated development at the mountain areas. Theory and practice.', Metsovo, Greece.
8. Petrakis M., Chalkias C., Psiloglou B., Lianou M., 2001: Modelling Human Pressure and its Consequences for the Environment and Public Health, NATO Advanced Research Workshop, "GIS for Emergency Preparedness and Health Risk Reduction".
9. Chalkias C., Petrakis M., Psiloglou B., Lianou M., Adaktilou N., 2001: GIS in the Local Exploitation of a Greek Island, 21<sup>st</sup> Annual ESRI International User Conference, 9-13 July, San Diego, California.
10. Petrakis M., Cartalis C., Psiloglou B., Keramitsoglou I., Lianou M., Chalkias C., 2001: GIS techniques in a Park Management system, 21<sup>st</sup> Annual ESRI International User Conference, 9-13 July, San Diego, California.
11. Petrakis M., Lianou M., Psiloglou B., Chalkias C. and Cartalis C., 2002: Light Pollution as a policy tool, International Conference on Light Pollution, 5-7 March 2002, Chile.

12. Petrakis M., Lianou M., Psiloglou B., Chalkias C., Akylas E., Cartalis C., 2002: Mapping Satellite Derived Night Light Emissions as a Policy Tool, 3<sup>rd</sup> International Symposium on Remote Sensing of Urban Areas, 11-13 June 2002, Istanbul, Turkey.
13. Petrakis M., Chalkias C., Lianou M., Psiloglou B., Cartalis C., 2002: Geographical Information Systems and Remote Sensing in Environmental Management of Small Islands, 3<sup>rd</sup> International Symposium on Remote Sensing of Urban Areas, 11-13 June 2002, Istanbul, Turkey.
14. Petrakis M., Lianou M., Psiloglou B., Chalkias C., Akylas E., Cartalis C., 2002: Satellite Monitoring of Light Pollution as a Policy Tool, 6<sup>th</sup> International Conference on Protection and Restoration of the Environment, 1-5 July 2002, Skiathos, Greece.
15. Petrakis M., Lianou M., Psiloglou B., Asimakopoulos D. and Helmis C., 2003: The use of satellite in night light pollution monitoring as a socio-economic management tool, 2<sup>nd</sup> International Conference on Ecological Protection of the Planet Earth, Bio-Environment and Bio-Culture, Business Forum – Investments in Environment – the Winning Strategy, International Exhibition of Inventions and New Technologies, 5-8 June, National Palace of Culture, Sofia, Bulgaria.
16. Petrakis M., Akylas E., Giannakopoulos C., Psiloglou B., Lianou M., and Kassomenos P., 2003: Transmission coefficient of meteorological information over the Greek Archipelago, EGS-AGU-EUG (European Geophysical Society) Joint Assembly, Nice, France, April 2003.
17. Chalkias C., Petrakis M., Psiloglou B., Lianou M., 2003: Mapping visual pollution from artificial lights as a tranquillity disturbance factor: a GIS - RS approach, Geographical Information Systems and Remote Sensing: Environmental Applications, Volos, Greece, 7-9 November 2003.
18. Lianou M., Kavouras I., Kotronarou A., 2004: PM<sub>10</sub> and PM<sub>2.5</sub> in Athens and correlation with sources and meteorological conditions, 7<sup>o</sup> Hellenic (International) Conference on Meteorology – Climatology – Atmospheric Physics, Cyprus, 28-30 September 2004.
19. Chalkias C., Lianou M., Petrakis M., Psiloglou B., 2004: Night-Light Pollution assessment on semi-urban areas. An approachment with the use of GIS and Remote Sensing, 7<sup>o</sup> Hellenic (International) Conference on Meteorology – Climatology – Atmospheric Physics, Cyprus, 28-30 September 2004.
20. Petrakis M., Psiloglou B., Lianou M., Chalkias C., Kopania T., Briggs D., 2005: Development of Social - Environmental Indicators from night light emission data, IASME / WSEAS International Conference on Energy, Environment, Ecosystems and Sustainable Development, 12-14 July 2005, Athens, Greece.
21. Petrakis M., Psiloglou B., Chalkias C., Lianou M., Kopania, Petraki E., 2005: Use of Satellite Data for the Assessment of Carrying Capacity for the Greek Islands (Case Study Mykonos), IASME/ WSEAS International Conference on Energy, Environment, Ecosystems And Sustainable Development, 12-14 July 2005, Athens, Greece.
22. Lianou M., Kavouras I., Kotronarou A., Lazaridis M., 2006: Ambient particle measurements at a fixed monitoring site and outside redencies in the Athens area, Protection and restoration of the environment VIII, 3- 7 July 2006, Chania, Greece.

23. Kavouras I, Kotronarou A., Lianou M., Chalbot M. C., Vei I., and Akylas E., 2006: Relationships between particle number and mass concentrations in an urban area, The Air & Waste Management Association's 99<sup>th</sup> Annual Conference & Exhibition (ACE), Session AB-1b (2): PM field studies, June 20-23, New Orleans, Louisiana, USA.
24. Lianou M., Kavouras H., Kotronarou A, Lazaridis M. and Lykoudis S., 2006: Factors that affect the PM<sub>10</sub> spatial distribution in Athens, 8<sup>th</sup> Conference on Meteorology, Climatology and Atmospheric Physics, 24- 26 May 2006, Agricultural University of Athens.
25. Lolis C. I., Metaxas D. A., Bartzokas A. and Lianou M. K., 2008: Intra-Annual variability of relative Geostrophic Vorticity in the middle and the lower troposphere over the Mediterranean region, 9<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, 28-31 May 2008, Thessaloniki, Greece.
26. Lianou M., Lazaridis M., Kavouras I. G., 2009: Activities affecting the indoor Particle Number Concentration in 35 residencies of Athens. 7<sup>th</sup> International Conference on Air Quality - Science and Application (Air Quality 2009), Istanbul, 24-27 March 2009.
27. Lianou M., Chalbot M.-C., Kavouras H., 2010: Study of the factors that affect the spatial distribution of atmospheric aerosols in urban centers, 10<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics, 25-28 May 2010, Patra, Greece.
28. Lianou M., Kavouras I., Kopania T. and Kotronarou A., 2012: The impact of wind conditions on PM mass concentrations in Athens, 11<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP), Athens, 29 May –1 June 2012.

## Technical Reports

**'Upgrade of the meteorological and hydrological information net at the Aegean area'**, Asimakopoulos D. N., Petrakis M., Psiloglou B., Lianou M. K., Theoharatos G., Ministry of Aegean, 1999.

## Other

- Member of the Atmospheric Chemistry Laboratory, IERSD/NOA as technical support and analyst. Responsible for the calibration of PM samplers.
- Member of the Laboratory of Meteorological Device Calibration (LMDC) for the calibration of meteorological instruments such as: thermometers (mostly electronic, while liquid-in-glass thermometers are checked for good operation only), thermographs, hygrometers and hygrographs, pyranometers, photometers and rain gauges. The following procedure is according to ISO standards, the current scientific best practice, ISO Guide on the expression of uncertainty in measurements, and the World Meteorological Organization (WMO)-No 8: "Guide to meteorological instruments and methods of observations".
- Member of the scientific team Atmospheric Physics and Chemical Group (APCG) of NOA.