

CURRICULUM VITAE



PERSONAL INFORMATION

Name	LAJ, Paolo
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E-mail	Paolo.Laj@univ-grenoble-alpes.fr / Paolo.laj@helsinki.fi
Nationality	French
Date of birth / Status	13 / 03 / 1966, Married 2 children (born 2000 and 2002)

APPOINTMENTS

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|----------------------------------|---|
| from September 2009 | <ul style="list-style-type: none">• Institut des Géosciences pour l'Environnement- IGE (former Laboratoire de Glaciologie et Géophysique de l'Environnement-LGGE) – Joint Research Unit CNRS – University Grenoble-Alpes – Institut de Recherche pour le développement – Institut National Polytechnique Grenoble. Senior Physicist¹ (eq. Full professor Hors-Classe class since 2016 / Full professor out-range since 2016).• Since January 2015: part-time prof. Division of Atmospheric Sciences, Department of Earth System Science (INAR), University of Helsinki, Finland• Since September 2018, invited scientist at Institute for Atmosphere and Climate, CNR Bologna, Italy |
| September 2003-Sept. 2009 | Laboratoire de Météorologie Physique Clermont-Ferrand (LaMP) – CNRS-University B. Pascal, Clermont-Ferrand, France
Senior Physicist (eq Full Professor 2 nd class since Oct. 2004) / Research Team Leader |
| October 1998-August 2003 | Laboratoire de Météorologie Physique Clermont-Ferrand (LaMP) – CNRS-University B. Pascal, Clermont-Ferrand, France
Assistant Professor / Research Team Leader |
| May 1994-September 1998 | Istituto ISAC, Consiglio Nazionale delle Ricerche – Bologna- Italy
Research scientist /Marie Curie Fellow |
| March 1992-September 2002 | PNRA – National Italian Program for Antarctic Research – University of Modena- Italy |

EDUCATION

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| • Dates | 2003 |
| • Name and type of organisation | U. Blaise Pascal, Clermont-Ferrand, France |
| • Title of qualification awarded | Habilitation Atmospheric Sciences |
| • Dates | 1992 |
| • Name and type of organisation | Grenoble University J. Fourier, Grenoble, France |
| • Title of qualification awarded | Doctorate Physical Sciences |
| • Dates | 1991 |
| • Name and type of organisation | University of Rhode Island, Narragansett, USA |
| • Principal subjects/ | Oceanography / Atmospheric Sciences |
| • Title of qualification awarded | Master of Science |

¹ Physicien is a specific position within the French Earth Observation Services, belonging to *Conseil National des Astronomes et des Physiciens* (CNAP). Physiciens are selected under a national competitive process and affected to one of the 28 « Observatoire des Sciences de l'Univers ». Physiciens are involved in specific Earth Observation activities that should amount to at least 33% of their working time. Their teaching duties correspond to 1/3 of a normal University Professor.

- Dates **1987**
- Name and type of organisation University of Savoie/ University of Paris
- Principal subjects/ Atmospheric Science
- Title of qualification awarded Master of Science (DEA)

- Dates **1986**
- Name and type of organisation University of Savoie, Chambéry France
- Principal subjects/ Environmental Engineering
- Title of qualification awarded Graduate

RESEARCH AND MANAGING RESPONSIBILITIES

NATIONAL RESEARCH MANAGEMENT

- **Director of ACTRIS-FR** since 2016: Research Infrastructure for atmospheric research- France. ACTRIS-FR is in the National roadmap since 2016 (4-year term). Coordination of ACTRIS-FR activities involving budget attribution and staff organization. ACTRIS-FR amounts to 45 full-time personnel and 1.7 M€/year running costs and 1 M€/year investment. 20% working time
- **Director of Envirhonalp** (2015-2018): coordination of Environmental research in Auvergne-Rhône-Alpes region. Envirhonalp is a consortium funded by Région Auvergne-Rhône-Alpes, universities and research performing organizations in region to ensure proper coordination of Environmental research. Envirhonalp has 5 antennas in Grenoble, Lyon, Chambéry, St-Etienne and Clermont-Ferrand (4-year term). 15% of working time
- **Director of Laboratoire de Glaciologie and Géophysique de l'Environnement** 2010-2015 (150 people, 75 permanent staff, budget 3,5 M€/yr excluding salaries) – 5-year term. Responsibilities of Institute director are similar to CNRS institutes. One main outcome of 2010-2015 term was merging of LGGE with Hydrology Institute in Grenoble to create IGE in 2016.
- **Research Group leader** at LaMP-UBP from 2002 to 2009 (15 engineers, Students and Researchers). Developed Aerosol research at Clermont-Ferrand to complete historical Cloud research activities. Scientific coordinator Puy de Dôme atmospheric station GAW, ICOS, EUSAAR, EARLINET (1999-2009)
- **Coordinator** of several national projects for aerosol research (funding from CNRS, EPA (ADEME) and National Research Agency-ANR) from 2000 to 2017.
- **Member** of French National committees for Atmospheric Research of CNRS (2004-2012) and Environment and Health from the French Research Agency (ANR -2007-2009)
- **Member** of the national committee for universities (CNU) 2004-2010. Selection and career advancement of university personnel
- **Member** of the national committee for Urban Air Quality Research (PRIMEQUAL) 2007-2012 funded by National EPA (ADEME)
- **President** of the Observatoire de la Réunion Council since 2017

INTERNATIONAL RESEARCH MANAGEMENT

- **Member** of coordination team of ACTRIS-ESFRI (together with G; Pappalardo, S. Sorvari, M. Kulmala). Engaging in the establishment of a European Research Infrastructure consortium. 20% working time
- **Scientific Co-Coordinator** of EU-FP7-ACTRIS (together with G. Pappalardo, CNR-IMAA), EU-H2020 ACTRIS-2 (together with G. Pappalardo, CNR-IMAA), EU H2020 ENVRIplus (together with W. Kutsch, ICOS) projects. Total amount of projects 35M€. 20% working time
- **Scientific coordinator** of EU-FP6 EUSAAR program (Aerosol Monitoring) 2006-2011. Development of the in-situ aerosol observation network in Europe. Total Amount 7.5 M€.
- **Scientific WP leader** within EU-FP5 ACCENT (2004-2009), EU-FP6 EUCAARI (2007-2010), EU-H2020 ACTRIS-PPP (2017-2019), EU-H2020 EUROCHAMP (2017-2021), EU-H2020 PAPILA (2017-2021), H2020 ENVRI-FAIR (2018-2021). Total amount raised for research team >3M€) 5% current working time
- **Participant** in EU FP4 (CHEMDROP, GDF), EU-FP5 (CIME), EU-FP6 (PEGASOS) H2020 (ERA-PLANET 2016-2020) projects. Total amount raised >0,8 M€. 10% working time.
- **Member (and Chair since 2015)** of WMO-GAW commission on Aerosols (SAG) since 2007
- **Member (nominated by WMO)** of the Scientific Advisory Panel of the Global Environmental Outlook-6 (GEO-6) of UNEP. GEO-6 report to be handed at the UNEA General assembly in 2019
- **Member of AOPC** (Atmospheric Observation Panel for Climate) -nominated by WMO/GAW since 2018
- **Member of evaluating committees for EU programs**, NSF, APRAISE (UK), MURST (IT), SDC (CH) programs, participation to ANVUR evaluation committee (IT)
- **Member** of ACTRIS-NO and ACTRIS-CZ scientific committees since 2017
- **Associated member** of ISAC-CNR Bologna since 2016

- **Member** of Marie-Curie ITN and ERC evaluation panels (2010-2017)
- **Member** of the working group for the revision of air quality directive (DG Environment and DG Research)
- **Principal Investigator** NCO-P (Nepal) – joint with CNR-ISAC since 2006 and CHC (Bolivia) since 2011 Global/Regional GAW stations and OPE (ICOS DEMO site) 2005-2013

TEACHING, STUDENT SUPERVISION AND PUBLICATION RECORD

TEACHING

As “Physicien des Observatoires”, teaching requirements amount to 66h/year (33% of full Professor – 192h/yr)

Since 2003, average teaching amount **100h/year**.

- **Topics:** aerosol technology, aerosol and climate, air quality regulation, atmospheric chemistry and climate
- **Level:** M1/M2 and PhD, Secondary school teachers,
- **Universities:** University Grenoble-Alpes, University Clermont-Ferrand, University Mayor de San Andres –Bolivia, University of Helsinki.

Mentor at University of Helsinki: support to students and Post-doc career building.

STUDENT SUPERVISION

Since 1999, supervision of 13 PhD students. In average, publication of 2,86 papers/PhD with student as first author.

Name	Date of graduation	University	Topic
Karine Sellegri	Oct. 2003	J. Grenoble J. Fourier	Aerosol/Cloud interaction
Régis Dupuy	Mai 2004	J. Clermont-Fd	HTDMA development
Angela Marinoni	Dec. 2005	J. Milano Bicocca- Italy	Cloud Chemistry
Pierre Amato	Nov. 2006	J. Clermont-Fd	Biological processes in cloud
Paolo Villani	Dec. 2006	J. Clermont-Fd	VHTDMA development
Marius Parazols	Dec 2007	J. Clermont-Fd	Cloud chemistry
Hervé Venzac	Sept. 2008	J. Clermont-Fd	Aerosol Nucleation
Guillaume Bertrand	Dec. 2008	J. Clermont-Fd	Precipitation chemistry
Laureline Bourcier	Janv. 2009	J. Clermont-Fd	Radionuclides in precipitation
Vincent Michaud	Dec. 2009	J. Clermont-Fd	Aerosol hygroscopic properties
Julien Boulon	Sept. 2011	J. Clermont-Fd	Nucleation processes
Saehee Lim	May 2015	J. Grenoble J. Fourier	Black carbon on snow
Marco Zanatta	February 2016	J. Grenoble-Alpes	Black carbon aerosol processes

PUBLICATIONS

Author or co-author of 126 publications in the field of atmospheric aerosols processes and variability, clouds physics and chemistry, precipitation chemistry, glaciochemistry. (as of 01/08/2017: H-Index: 42, >6000 citations). Five most recent publications

- Wiedensohler, A., M. Andrade, K. Weinhold, T. Müller, W. Birmili, F. Velarde, I. Moreno, R. Forno, M.F. Sanchez, P. Laj, P. Ginot, D.N. Whiteman, R. Krejci, K. Sellegri, and T. Reichler, Black Carbon Emission and Transport Mechanisms to the Free Troposphere at the La Paz/El Alto (Bolivia) Metropolitan Area: A Case Study based on the Day of Census 2012, Atmos. Envir. in press
- Zanatta, M., P. Laj, M. Gysel, U. Baltensperger, St. Vratolis, K. Eleftheriadis, Y. Kondo, P. Dubuisson, V. Winiarek, S. Kazadzis, P. Tunved, and H.-W. Jacobi, Effects of mixing state on optical and radiative properties of black carbon in the European Arctic, Atmos. Chem. Phys. Atmos. Chem. Phys., 18, 14037-14057, 2018, <https://doi.org/10.5194/acp-18-14037-2018>
- Benedetti, A., Reid, J. S., Knippertz, P., Marsham, J. H., Di Giuseppe, F., Rémy, S., Basart, S., Boucher, O., Brooks, I. M., Menut, L., Mona, L., Laj, P., Pappalardo, G., Wiedensohler, A., Baklanov, A., Brooks, M., Colarco, P. R., Cuevas, E., da Silva, A., Escubano, J., Flemming, J., Huneeus, N., Jorba, O., Kazadzis, S., Kinne, S., Popp, T., Quinn, P. K., Sekiyama, T. T., Tanaka, T., and Terradellas, E.: Status and future of numerical atmospheric aerosol prediction with a focus on data requirements, Atmos. Chem. Phys., 18, 10615-10643, <https://doi.org/10.5194/acp-18-10615-2018>, 2018.
- Lim, S., Lee, M., S.-W. Kim, and P. Laj, Sulfate alters aerosol absorption properties in East Asian outflow,

Scientific Reports, 8, Article number: 5172 (2018) DOI - 10.1038/s41598-018-23021-1

- M. Dall'Osto, D. C. S. Beddows, A. Asmi, L. Poulain, L. Hao, E. Freney, J. D. Allan, M. Canagaratna, M. Crippa, F. Bianchi, G. de Leeuw, A. Eriksson, E. Swietlicki, H. C. Hansson, J. S. Henzing, C. Granier, K. Zemankova, P. Laj, T. Onasch, A. Prevot, J. P. Putaud, K. Sellegri, M. Vidal, A. Virtanen, R. Simo, D. Worsnop, C. O'Dowd, M. Kulmala & Roy M. Harrison- Novel insights on new particle formation derived from a pan-european observing system, Scientific Reports, 8, Article number: 1482 (2018) doi:10.1038/s41598-017-17343-9

Chief Editor of Atmospheric Measurement Technique since 2010

OTHERS

AWARDS

- Winner of the 2002 CNRS Bronze medal award
- Prud'homme Prize from French Meteorological Society (1992)
- Hägen-Smit Prize 2014 Most cited paper in Atmospheric Environment
- Member of International Eurasian Academy of Science since 2016

LANGUAGE PROFICIENCY

- French mother tongue
- Italian, English fluent
- Spanish almost fluent