KARINE SELLEGRI



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Research Interests and theme

Experimental characterization of the properties of atmospheric aerosols in the natural background atmosphere, focusing on (1) sources of aerosols in the atmosphere, in particular when they are formed by nucleation from a gas phase, (2) their distribution in the atmospheric column and in particular their transport at high altitude and 3) their interaction with water vapor, either as a cloud condensation nucleus or as an ice nucleus, in connection with their indirect impact. During the last 10 years: ocean-atmosphere interactions and demonstration of the role of marine microorganisms in particle emissions and their impact on cloud formation.

Academic appointments

Director of Research, CNRS, LaMP ; Aubière, Fr — 2014-Présent Invited prof. , NIWA ; Wellington, NZ — 2017-2018 Junior Researcher, CNRS, LaMP ; Aubière, Fr. — 2005-2014 Post-doc, NUIG ; Galway, Ireland — 2004 Post-doc, Max Planck Institute ; Heidelberg Germany — 2003

Education

Université Blaise Pascal, Aubière, France — HDR (Habilité à Diriger les Recherches) — 2013 Université Blaise Pascal, Aubière, France — PhD in Atmospheric Sciences — 2002 Université Joseph Fourier, Grenoble, France — MSc in Atmospheric Sciences — 1998 ESIGEC, Chambery, France — Engineer in Environmental processes — 1997

Principal actual scientific and administrative responsibilities Member of the scientific committees of SOLAS themes 4 and 5, 2020-present

Member of the CoNRS-19 section (National Scientific Research Committee), 2021-present

Project management

- PI of 7 national and international projects (45k€-2M€), among which, in relation with SOPHYAC:
 - SOPHYAC-Light, LEFE-CHAT/CYBER, 135 k€
 - Sea2Cloud, « Are marine microorganisms influencing clouds? », ERC, 2 M€, 2018-2023

- Sea2Cloud-CNES, CNES-TOSCA, 60 k€, 2020-2022
- Sea2Cloud-ANR , T-ERC ANR, 90 k€, 2017-2018
- MACA, « Marine Aerosol and Clouds in the Arctic », IPEV, 50 k€ 2017-2018
- Co-PI and participant to 11 projects at the national and international level, among which, SAM, « Sources of Marine Aerosols », ANR, PI for mesosoms experiments, 2012-2014

Academic supervision

Supervision of 14 PhD students, director of 9 post-doc, hosting 2 foreign researches

Research Cruises

Participation to 4 Research cruises (1 as co-PI):

- Sea2Cloud, South West Pacific (East of New-Zealand), R/V Tangaroa, March 2020
- TONGA, Tonga islands, R/V Atalante, November-December 2019
- PEACETIME, Mediteranean Sea, R/V Pourquoi Pas?, May 2017
- FETCH, Mediterranean Sea, R/V Atalante, May 1998