

# Jean-Christophe RAUT

## Curriculum Vitae

LATMOS - Sorbonne Université  
Tour 45-46, Bureau 312

4, Place Jussieu 75252 Paris

☎ +33 (0)144278445

✉ [jean-christophe.raut@latmos.ipsl.fr](mailto:jean-christophe.raut@latmos.ipsl.fr)

🌐 <http://raut.page.latmos.ipsl.fr/>

### Personal

Age 41 years old

Status **Assistant professor in atmospheric sciences**

Sorbonne Université

Institute **LATMOS**

Laboratoire ATmosphères, Milieux et Observations Spatiales

### Professional Experience

Since 2009 **Assistant professor**, Sorbonne Université, LATMOS, France.

Since 2018 **Associate professor**, UQAM, Université de Québec à Montréal, Canada.

2008–2009 **Postdoctoral fellow**, École Polytechnique, LMD, funded by French spatial agency.

### Scientific Education (France)

2020 **Habilitation**, Sorbonne Université, LATMOS, Aerosols in the Arctic region : sources, transport, interactions with radiation and clouds.

2005–2008 **PhD**, UPMC, LSCE, CEA de Saclay, Experimental synergy combining lidar measurements for aerosol optical characterization: applications to air quality and radiative forcing.

2003–2004 **Master's degree**, École Centrale de Nantes, Fluids Dynamics and Transfers.

2001–2004 **Engineer**, École Centrale de Nantes, Major in Energy and Environment.

## Scientific activities

### Research interests

- Atmospheric aerosol microphysics and optics
- Aerosol-cloud interactions in the Arctic
- Arctic boundary layer

### Methods

- Online mesoscale chemistry-transport modeling (Polar WRF-Chem)
- Active remote sensing (lidar)
- Field campaigns : MAGENTA (2006), PARISFOG (2006-2007), CALIPSO validation (2007), EM25 (2009), MEGAPOLI (2009), ACCESS (2012), PARCS (2016), IMPECABL (2022-2023)

### Selected projects

- PI Émergence SU **IMPECABL** (2021–2023, 48 k€), Émergence Paris-Saclay **Arctic atmospheric pollution** (2018, 6.1 k€), OVSQ **Pollution atmosphérique en Arctique** (2018, 4 k€), IDEX Paris-Saclay **ULM-PARCS** (2016, 70 k€)
- Co-PI, WP leader Chantier Arctique **PARCS** (2016–2018), ANR **CLIMSLIP** (2012–2014)
- Participant H2020 **CRiceS** (2021–2025), ANR **CASPA** (2021–2024), ONR & LEFE-IMAGO **THINICE/CYCLONICE** (2021–2024), LEFE-CHAT & IPEV **ALPACA** (2019–2022), CNES **EECLAT** (2018–2022), EQUIPEX **IAOOS** (2011–2022), ERA-Planet **iCUPE** (2017–2020), FP7 **ICE-ARC** (2015–2017), FP7 **ACCESS** (2012–2015), FP7 **ECLIPSE** (2012–2014)

### iResearch responsibilities

- Since 2022 **Member of the Atmosphere Working Group, IASC** (*International Arctic Science Committee*), <https://iasc.info/our-work/working-groups/atmosphere/members>.
- Since 2020 **Member of the Editorial Board, Atmosphere, Remote Sensing.**
- Since 2013 **PI of a project dedicated to numerical simulations on French national supercomputers, Team of ~ 10 people**, Regional impact of atmospheric chemistry and aerosols on air quality and climate.
- Since 2014 **Steering committee member, Regional climate and environments, IPSL**, In charge of activities related to the Arctic region.

## Teaching activities

### Current teaching activities ~ 200 hours/year

- M2-MOCIS Clouds, precipitations and aerosols (~ 22 h)
- M2-SPE Energy, environment (~ 10 h)
- M1-MOCIS Radiative transfer and remote sensing (~ 22 h)
- M1-SPE Numerical physics (~ 70 h)
- BSc-Physics Physics of continuous matter (~ 70 h)

### Responsibilities in teaching

- Since 2019 **Head of master's degree program**, *SPE*, Environmental Science and Policy, Sorbonne Université-SciencesPo.
- Since 2018 **Elected member of Master Concil**, *SDUEE*, Sciences de l'Univers, Environnement, Écologie, Sorbonne Université.
- 2012–2019 **Head of master's degree program M1**, *SPE*, Environmental Science and Policy, Sorbonne Université-SciencesPo.
- 2011-2015 **Member of expert committee**, *CNU 37*, Sorbonne Université.

### Advising

- Bachelor students Christelle Kadi (SU, 2010), Chloée de la Vega (SU, 2010), Mathilde Crabot (ENS-Ulm, 2011)
- Master students Lucien Blanc (ECP, 2010), Yvonnick Banchieri (ECP, 2010), Louis Marelle (SU, 2012), Thomas Vernaudon (SU, 2014), Lilian Loyer (SU, 2017), Cécile Carton (SU, 2018), Lilian Loyer (SU, 2018), Olivier Lemoine (UQAM, 2018-2019), Julia Maillard (École des Ponts, 2019), Anderson Da Silva (2022)
- PhD students Louis Marelle (SU, 2016), Sétigui Keita (UQAM, 2022), Lilian Loyer (SU, 2022), Julia Maillard (SU, 2022)
- Post-docs Jennie Thomas (Novembre 2010–Octobre 2013), Boris Quennehen (Janvier 2012–Juillet 2015), Yoann Long (Mars 2014–Décembre 2014), Paolo Tuccella (Octobre 2013–Février 2015), Nikos Daskalakis (Février 2015–Février 2017)

## Other activities

### Organization of conferences, workshops

- March 2022 **QUIESCENT2**, *Workshop*, ASSW, Tromsø.
- Oct. 2021 **LEFE Aerosol-cloud interactions**, *Workshop*, Lille Univ., 75 participants.
- April 2019 **QUIESCENT**, *Workshop*, British Antarctic Survey, 35 participants.
- May 2015 **PARCS**, *Chantier Arctique*, UPMC, 17 participants.
- Jan. 2015 **ECLIPSE**, *EU projet*, UPMC, 19 participants.
- June 2015 **ECLIPSE**, *EU projet*, UPMC, 26 participants.

### Referee

- Editor Atmosphere, Remote Sensing
- Reviewer Journal of Geophysical Research - Atmospheres, Atmospheric Chemistry and Physics, Bulletin of the American Meteorological Society, Atmospheric Environment, Geoscientific Model Development, Earth System Science Data, Journal of the Atmospheric Sciences, Atmospheric Research, Journal of Atmospheric and Oceanic Technology, Annales Geophysicae, Asia-Pacific Journal of Atmospheric Sciences, Advances in Science and Research
- Referee for projects Call for french (LEFE, PNTS, CNES, DIM Qi<sup>2</sup>) or international (NSERC, NERC, NWO)
- Book chapter Baghdadi, N., Zribi, M., Optical Remote Sensing of Land Surfaces, Techniques and methods, ISTE Press, London and Elsevier, Oxford, 2016. ISBN : 9781785481024

### Member of PhD/Habilitation jury

- Examiner Alexandre Baron (LSCE, 2020), Rémy Lapere (LMD, 2021)
- Reviewer Foteini Baladima (IGE, 2021), Peter Huszar (Habilitation, Charles University, Prague, Czech Republic, 2022)

### Member of thesis monitoring committees

- PhD committee Alexandre Baron (LSCE, 2017–2020), Rémy Lapere (LMD, 2018–2021), Assia Arouf (LMD, 2019–2022), Flavien Cornut (CNRM, 2020–2023), Ludovico Di Antonio (LISA, 2021–2024)