

Rémy LAPERE, PhD

RESEARCHER IN ATMOSPHERIC SCIENCES

remy.lapere@lmd.ipsl.fr
https://www.researchgate.net/profile/Remy_Lapere
http://www.linkedin.com/in/remy-lapere/
https://www.lmd.polytechnique.fr/~rlapere/

SCIENTIFIC INTERESTS

- Climate feedback of air pollution, long-range transport of aerosols, attribution of extreme pollution events
- Assessment and forecast of solar and wind energy resources

SKILLS

- Atmospheric modeling
- Data analysis
- Programming
- French (native), English (C2), Spanish (B2), Japanese (A1)

TEACHING & OUTREACH

Teaching assistant at École Polytechnique

- Renewable energy data analysis projects
- Physics 101 lab sessions
- Tutoring in maths and atmospheric sciences

Conference facilitator at the 2020 Climate Change and Energy Transition on the Mediterranean conference

Organizer and presenter at *Fête de la Science* (2018-2021): experiment-based introduction to Earth's climate and renewable energies

PHD TRAININGS

Numerical modeling of the Ocean and the Atmosphere (MODNUMA) // European Research Course on Atmospheres (ERCA) // EUGLOH Arctic Environments // ESiWACE High Performance Computing

TIMELINE

Post-doctoral researcher
Laboratoire de Météorologie Dynamique
École Polytechnique, France

2021

PhD in Atmospheric Chemistry
Laboratoire de Météorologie Dynamique
École Polytechnique, France
Observation and modeling of pollution events in Chile

2018

Master of Science & Technology
École Polytechnique, France
Energy Environment: Science Technology and Management (STEEM)

2017

Consultant in Finance
Sia Partners, France

2015

Master's degree
Université Paris I, France
Mathematical Methods in Economy and Finance

2014

Financial engineer in life insurance
Axa life Invest, France

2013

Grande École d'Ingénieur
ENSTA Paris, France
Applied mathematics

MISCELLANEOUS

- Sports: basketball, running, cycling, aviation (learning pilot)
- Music: guitar, piano, saxophone
- Photography: nature, horse riding, astrophotography

PEER-REVIEWED PUBLICATIONS

In prep.

Lapere, R., Huneeus, N., Couvidat, F., & Muñoz, R. (in preparation). Seasonality in meteorological export and deposition fluxes of Black Carbon on glaciers of the central Chilean Andes

In review

Silva, P., Geirinhas, J., **Lapere, R.**, Laura, W., Cassain, D., Alegria, A., & Campbell, J. (in review). Heatwaves and fire in Pantanal: historical and future perspectives from CORDEX-CORE, *J Env Manage*

2021

Huneeus, N., **Lapere, R**., Mazzeo, A., Ordoñez, C., Donoso, N., Muñoz, R., & Rutllant, J. (2021). Deep winter intrusions of urban Black Carbon into a canyon near Santiago, Chile: a pathway towards Andean glaciers evidenced from field measurements *Environ Pollut*, 291, 118124, doi: 10.1016/j.envpol.2021.118124

Lapere, R., Menut, L., Mailler, S., & Huneeus, N. (2021). Seasonal variation in atmospheric pollutants transport in central Chile: dynamics and consequences *Atmos Chem Phys*, 21(8), 6431–6454, doi: 10.5194/acp-21-6431-2021

Lapere, R., Mailler, S., & Menut, L. (2021). The 2017 Mega-Fires in Central Chile: Impacts on Regional Atmospheric Composition and Meteorology Assessed from Satellite Data and Chemistry-Transport Modeling *Atmosphere*, 12, 344, doi: 10.3390/atmos12030344

Lapere, R., Mailler, S., Menut, L., & Huneeus, N. (2021). Pathways for wintertime deposition of anthropogenic light-absorbing particles on the Central Andes cryosphere *Environ Pollut*, 272, 115901, doi: 10.1016/j.envpol.2020.115901

2020

Lapere, R., Menut, L., Mailler, S., & Huneeus, N. (2020). Soccer games and record-breaking PM2.5 pollution events in Santiago, Chile *Atmos Chem Phys*, 20(8), 4681–4694, doi: 10.5194/acp-20-4681-2020

Bessagnet, B., Menut, L., **Lapere, R.**, Couvidat, F., Jaffrezo, J.-L., Mailler, S., Favez, O., Pennel, R., & Siour, G. (2020). High Resolution Chemistry Transport Modeling with the On-Line CHIMERE-WRF Model over the French Alps-Analysis of a Feedback of Surface Particulate Matter Concentrations on Mountainous Meteorology *Atmosphere*, 11(6), 565, doi: 10.3390/atmos11060565

CONFERENCES & SEMINARS

2021

Lapere, R., et al. Is black carbon deposition on glaciers of the central Chilean Andes underestimated? *Congreso Colombiano y conferencia internacional Calidad del Aire y Salud Pública – CASAP VIII.*

Lapere, R., et al. Mountain-valley circulation in central Chile: consequences for Black Carbon deposition over glaciers and Ozone injection into the free troposphere *International Global Atmospheric Chemistry - IGAC 2021*

Lapere, R., et al. Mountain-valley circulation in central Chile: consequences for Black Carbon deposition over glaciers in wintertime and summertime *Online EGU General Assembly 2021*

2020

Lapere, R., et al. Combining air quality network data and chemistrytransport modeling for the attribution of extreme pollution events: a case study of Santiago, Chile *Online EGU General Assembly 2020*

2019

Lapere, R. PM2.5 extreme events in Santiago, Chile: observation and modeling *Seminar at the Center for Climate and Resilience Research (CR2), Santiago, Chile*

REPORTS

2021

Lapere, R. (2021) Observation and modeling of pollution events in Chile, PhD thesis

2020

Drobinski, P., Azzopardi, B., Ben Janet Allal, H., Bouchet, V., Civel, E., Creti, A., Duic, N., Fylaktos, N., Mutale, J., Pariente-David, S., Ravetz, J., Taliotis, C., & Vautard, R. (2020). Energy transition in the Mediterranean. In Climate and Environmental Change in the Mediterranean Basin – Current Situation and Risks for the Future. First Mediterranean Assessment Report. [Cramer W, Guiot J, Marini K (eds.)] Union for the Mediterranean, Plan Bleu, UNEP/MAP, Marseille, France, 58pp

2018

Lapere, R. (2018) Modeling the Impacts of Future Emission Scenarios on Air Pollution in Santiago, Chile, Master's thesis