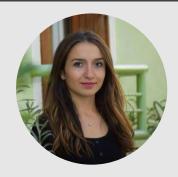
Dr. Assia **Arouf**

Postdoctoral Researcher Scientist | Columbia University | NASA-GISS



About me

I am currently a postdoctoral researcher at Columbia University (NY), studying low-level cloud feedback using CALIPSO and CloudSat observations and evaluating their representation in climate models. In 2019, I started my PhD in Laboratoire de Météorologie Dynamique (LMD) and Sorbonne University (Paris) focused on developing a new observational-derived product of surface longwave cloud radiative effect using space lidar observation (CALIPSO) and radiative transfer simulations. Before my PhD, I did my master in Fundamentals of Remote Sensing at Université Paris Cité in France.

Contact –

- Born the 09/03/1995
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- **(**917)-463-8681
- +33 7 53 29 26 58
- 2880 Broadway, New York, NY 10025
- Website/Assia-Arouf
- in Linkedin/Assia-Arouf
- R⁶ ResearchGate/Assia-Arouf
- ORCID/Assia-Arouf

– Languages –

- English Fluent
- French Native Language
- Berber Native Language
- 🕟 Arabic (Algerian)- Fluent
- Spanish Learning

Education

2019-2023



PhD Degree

Sorbonne Université

Laboratoire de Météorologie Dynamique (LMD)

Cloud Radiative Effects on Surface Temperature from Space Lidar Observations: Remote sensing, radiative transfer, Earth radiation budget, data process-

2017-2019





Institut de Physique du Globe de Paris (IPGP)

Fundamentals of Remote Sensing (link): Electromagnetic radiation, atmosphere and climate system, radiative transfer, satellite observations, spatial techniques.

2013-2017



Bachelor Degree Blida University

Institut d'Aéronautique et des Etudes Spatiales (IAES)

Bachelor Degree and first year of Master; Physics, Mathematics, Electromagnetic, Navigation.

(Work Experiences

10/2023today





Postdoctoral Researcher Scientist Columbia Climate School

CCSR, NASA-GISS

Determine the impact of an improved representation of low-cloud feedbacks on ECS in the NASA Goddard Institute for Space Studies Earth System Model (NASA-GISS ESM), obtained via observational constraints on moist atmospheric physical processes.

06/2023-08/2023

Postdoctoral Researcher Centre national de la recherche scientifiqu

LMD-IPSL, Ecole Polytechnique

Comparison of the longwave cloud radiative effect derived from CALIPSO observations with the longwave cloud radiative effect simulated by CMIP6 climate models over the last 17 years in the polar regions.

09/2019-04/2023

PhD Research Laboratoire de Météorologie Dynamique

? Paris, France

Paris, France

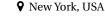


IPSL, Ecole Polytechnique

Development of surface longwave cloud radiative effect from theoretical parameterizations derived from radiative transfer simulations that involve different humidity and temperature profiles from reanalysis, and five cloud properties derived from space lidar observations. Validation of the surface longwave cloud radiative effect by comparing it to existing satellite-derived products globally on instantaneous collocated data at footprint scale and on global averages as well as to ground-based observations at specific locations.

Awards

 Seconde place for a poster presentation at the 102nd American Meteorological Society Annual Meeting, January 2022.



Paris, France

Q Paris, France

P Blida, Algeria

- Skills and Strengths

Passion for Learning New Things

Curiosity

Ability to Plan and Organize

Autonomy | Adaptability

Flexibility | Problem Solving

Leadership

Good Communication

Good Listener

Other Interests

• Sewing

Team Working

- Embroidery
- Cooking
- Chess 2
- Travels &
- Movies
- Badminton 🧖

Check my website

Check my website via the QR below.



Publications

Journal Article Surface cloud warming increases as late Fall Arctic sea ice cover decreases,

2024 Arouf, A., Chepfer, H., Kay, J. E., L'Ecuyer, T. S., Lac, J., Geophysical Research

Letters, 51, e2023GL105805, @ 10.1029/2023GL105805

PhD thesis Surface longwave cloud radiative effect derived from space lidar observa-

tions: application in the Arctic., Arouf, A., , Atmospheric and Oceanic Physics,

Sorbonne Université, www.theses.fr/2023SORUS173

Journal Article The Surface Longwave Cloud Radiative Effect derived from Space Lidar Ob-

servations, **Arouf**, **A.**, Chepfer, H., Vaillant de Guélis, T., Chiriaco, M., Shupe, M. D., Guzman, R., Feofilov, A., Raberanto, P., L'Ecuyer, T. S., Kato, S., and Gal-

lagher, M. R., Atmos. Meas. Tech., 15, 3893–3923, @ 10.5194/amt-15-3893-2022

Journal Article Low opaque clouds formed over Fall Arctic open water enhance Greenland's

west coast surface cloud warming, Lac, J., Chepfer, H., Arouf, A., Shupe, M. D.,

Submitted to JGR,

🖵 Conferences, Workshops and Symposiums

Oral Presentations

2023

2022

2024

EGU; April 2023; Vienna

Quantifying surface cloud warming increase as Fall Arctic sea ice cover decreases, (20) 10.5194/egusphere-egu23-2377

EECLAT: Expecting Earth-Care, Learning from A-train; Jan. 2023; Banyuls, France

Quantifying surface cloud warming increase as Fall Arctic sea ice cover decreases

EECLAT; Jan. 2022; Remote

Cloud warming effect: A-Train Observations Vs CMIP6 Models

EECLAT; Jan. 2021; Remote

Effect of clouds on surface temperature from space lidar observations

EECLAT; Jan. 2020; Avignon, France

Clouds influence on surface heating in the infrared range on a global scale

Invited Seminars NASA-GISS; Jan. 2024; New York, USA

Surface longwave cloud radiative effect derived from space lidar observations: An application to the Arctic. Youtube video.

Max-Planck-Institut für Meteorologie; Jul. 2021; Remote

The Surface Longwave Cloud Radiative Effect from Space Lidar Observations

Poster Presentations NASA-GSFC Poster Party; Jan. 2024; Greenbelt, USA

Constraining low-level cloud feedback in NASA-GISS model-E using satellite observations

CFMIP: Cloud Feedback Model Intercomparison Project; Jul. 2023; Paris, France Surface cloud warming increases as late Fall Arctic sea ice cover decreases

IRS: International Radiation Symposium; Jul. 2022; Thessalonique, Greece The Surface Longwave Cloud Radiative Effect derived from Space Lidar Observations

LPS: Living Planet Symposium; May 2022; Bonn, Germany

The Surface Longwave Cloud Radiative Effect derived from Space Lidar Observations

AMS: American Meteorological Society; Jan 2022; Remote

Analysis of Decadal Variations of Global Surface Longwave Cloud Radiative Effect derived from Space Lidar Observations

Poster Presentations WCRP: World Climate Research Programme; Sept. 2021; Remote Analysis of Time Series of Global Surface Longwave Cloud Radiative Effect from Space Lidar Observations

nom space Litar Observations

EGU: Eropen Geoscience Union; May 2021; Remote

The Surface Longwave Cloud Radiative Effect from Space Lidar Observa-

tions, @ 10.5194/egusphere-egu21-2064

</> Professional Skills

• Python: Advanced • Unix: Basic

• **Space observation processing**: Advanced • **C/C++**: Basic

• Radiative transfer simulations: Advanced • Fortran: Basic

• Matlab: Intermediate • GitHub: Basic

* Potential Recommendation Writers