



MICKAËL LALANDE

CONTACT

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Driving licence

SOCIAL NETWORKS

@LalandeMickael

@mickaellalande

@mickaellalande

mickaellalande.github.io

COMPUTER SKILLS

- Python (xarray, proplot, dask, pandas, scipy, xesmf, etc.)
- Jupyter Lab/Notebook
- Linux
- GitHub
- Latex (Overleaf)
- Fortran (basic level)
- Climate models:
LMDZ/ORCHIDEE (IPSL)
- Supercomputer: Jean-Zay, TGCC

LANGUAGES

- French (native speaker)
- English (fluent)

RESEARCH INTERESTS

Mountainous Area - High Mountain Asia - Global Climate Models - CMIP6 - Snow Cover Parameterization

PROFESSIONAL EXPERIENCE

PhD Student | Oct 2019 - Sep 2022 | IGE (C2H team)

Institut des Géosciences de l'Environnement (Grenoble, France)

Cryosphere and climate modeling in the High Mountain Asia

(supervised by Martin Ménégoz and Gerhard Krinner)

↳ CMIP6 - LMDZ/ORCHIDEE (IPSL GCM) - Snow Cover Parameterization

Master thesis | Feb 2019 - Jul 2019 | IGE (MEOM team)

Identification and filtering of oceanic chaos by Machine Learning

(supervised by Thierry Penduff and Redouane Lguensat)

↳ Oceanography - Chaos - Deep Learning - Spatial Altimetry

Research intern (MSc) | May 2018 - Jul 2018 | IGE

Impact of Arctic sea ice variability on the northern latitude

(supervised by Olga Zolina and María Santolaria-Otín)

↳ Hydrological cycle - Models - Reanalyses

Web Developer | 2016 - 2017 | Self-Entrepreneur

Conception : simonelalande.fr / morillon-massif-etc-montpellier.fr

↳ PHP - Symfony - Git - JQuery - HTML/CSS - Javascript

Research intern (BSc) | 9 weeks 2014 | LPSC (Grenoble, Fr)

Laboratoire de Physique Subatomique & Cosmologie

Improve photo-z performance in LSST (Jean-Stéphane RICOL)

↳ BDT - Large Synoptic Survey Telescope - Photometric Redshifts

Research intern (BSc) | 6 weeks 2013 | LGGE (Grenoble, Fr)

Laboratoire de Glaciologie et Géophysique de l'Environnement

Inversion of the friction conditions at the base of the polar caps

↳ Simulation - Paraview - Elmer/Ice (Fabien GILLET-CHAULET)

EDUCATION

Master in Atmosphere, Climate, and Continental Surfaces

Université Grenoble Alpes (Grenoble, France) | 2017 - 2019

Bachelor's degree in Physics

Université Joseph Fourier (Grenoble, France) | 2013 - 2014

Bachelor's degree in Earth and Environmental Sciences

Université Joseph Fourier (Grenoble, France) | 2012 - 2013

Preparatory classes for French "Grandes Ecoles" CPGE

Lycée Joffre PCSI/PSI (Montpellier, France) | 2009 - 2011

SCIENCE POPULARIZATION



Science et Climat

YouTube channel created in 2019
www.youtube.com/c/ScienceetClimat



Allodocs Podcast

#21: How can we make climate projections until 2100, when we can't predict the weather in 10 days?



FLASH | OSUG

Is the current global warming due to human activity?



HMA | OSUG

Exacerbated warming in the High Mountain Asia

HOBBIES

- Hiking
- Snowboard
- Guitar

TRAVELS

- Japan (1 year Working Holiday Visa in Kyoto | 2014 - 2015)
- New Zealand (3 months backpacking | 2012)

TEACHING

Climatic and Environmental Variability course

Université Grenoble Alpes | 2020 - 2021

- Tutored project (~ 6h)
https://github.com/mickaellalande/variabilite_climatique
- Python introduction (3h)
- Practical works (6h)

ERCA school

Université Grenoble Alpes | 2022

- Practical works (4h)
<https://github.com/mickaellalande/ERCA>

PUBLICATIONS

Lalande, M., Ménégoz, M., Krinner, G., Naegeli, K., & Wunderle, S. (2021). **Climate change in the High Mountain Asia in CMIP6**. *Earth System Dynamics*, 12(4), 1061–1098. <https://doi.org/10.5194/esd-12-1061-2021>

TALKS

Lalande, M., Ménégoz, M., and Krinner, G., Ottlé, C: **Aptation of a snow cover scheme for complex topography areas: regional calibration over High Mountain Asia and application in global models**, 3rd International Conference on Snow Hydrology, 1–4 Feb 2022, Grenoble, France.

Lalande, M., Ménégoz, M., and Krinner, G.: **Climate change in the High Mountain Asia simulated with CMIP6 models**, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-8365, <https://doi.org/10.5194/egusphere-egu21-8365>, 2021.

SUMMER SCHOOL

Mountain Research School

LabEx ITTEM & OSUG, massif des Écrins (French Alps) | 2021

Interdisciplinarity between Human and Social Sciences and Earth and Environmental Sciences within mountain territories.