# Claudio M. Pierard

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### **EDUCATION**

# Ph.D. Candidate in Physical Oceanography Utrecht University Master 2 Environmental Fluid Mechanics Université Grenoble Alpes Master 1 Applied Mechanics Université Grenoble Alpes B.Sc. Physics 2020 - present 2019 - 2020 2019 - 2020 2018 - 2019 2018 - 2019

### **EXPERIENCE**

### Institute for Marine and Atmospheric Research Utrecht

October 2020 - present

PhD researcher

Project: Nanoplastics: origin, structure and fate (https://nanoplastics.org.)

Supervisors: Prof. Erik van Sebille.

### Laboratoire d'Océanographie Physique et Spatiale

National Autonomous University of Mexico (UNAM)

February 2020 - September 2020

Master 2 research internship.

Project: Abyssal turbulence in the vicinity of Lucky Strike. Supervisors: Prof. Guillaume Roullet and Dr. Jonathan Gula.

### Institut des Géosciences de l'Environnement

November 2018 - May 2019

Master 1 research internship.

Project: Measurement of turbulence in katabatic winds over a steep alpine slope.

Supervisor: Dr. Jean-Emmanuel Sicart.

### Center for Atmospheric Sciences, UNAM

July 2017 - August 2018

Undergraduate Research Assistant, Ocean-Atmosphere Interaction group.

Project: Development of an operational forecast system for extreme events using numerical models to predict meteorological conditions, waves and storm tides.

Supervisor: Dr. Jorge Zavala Hidalgo.

### Center for Atmospheric Sciences, UNAM

April 2017 - November 2017

Undergraduate Research Assistant, Laboratory of Geophysical Fluids.

Project: Numerical simulations of convection in a stratified fluid using the open source framework Dedalus.

Supervisor: Dr. Angel Ruiz-Angulo.

# **AWARDS**

### Make Our Planet Great Again Laureate

2018 - 2020

Master's Excellence Grant for Climate Science and Research.

### Blue-Cloud Hackathon Winner Team

February 2022

€25,000 for developing the Sea-Clearly tool for tracking plastic pollution reaching aquaculture farms. seaclearly.io

# **PUBLICATIONS**

• C.M.Pierard, D.Bassotto, F.Meirer, E.van Seville. Attribution of River-Sourced Floating Plastic in the South Atlantic Ocean Using Bayesian Inference. 2022, Frontiers in Marine Science. doi.org/10.3389/fmars.2022.925437

# **CONFERENCES**

### Annual Reunion of the Mexican Geophysical Union

November 2017

Study of the Planetary Boundary Layer over Mexico City during the inversion layers period.

Nederlands Aardwetenschappelijk Congres (NAC) - NWO

September 2022

Attribution of River-Sourced Floating Plastic in the South Atlantic Ocean Using Bayesian Inference.

MICRO 2022 - Plastic Pollution from Macro to Nano

November 2022

Backtracking nanoplastics found in the abyssal South Atlantic using Lagrangian simulations with fragmentation.

### **WORKSHOPS**

### Bad Honnef Physics School on Physics of the Ocean

July 2020\*

Deutsche Physikalische Gesellschaft – Cancelled due to COVID-19.

Marine Master's Summer School

July 2019

Royal Netherlands Institute for Sea Research (NIOZ).

Summer School in Atmospheric Sciences

June 2017

UNAM - Juriquilla, Mexico.

JuliaCon 2016

June 2016

MIT - Cambridge, MA.

# **CERTIFICATIONS**

- Causes of Climate Change University of Bergen. FutureLearn (2015).
- Nonlinear Dynamics: Mathematical and Computational Approaches Complexity Explorer (2016).
- 12.340x: Global Warming Science MITx, edX (2016).
- ChM003x: Sensing Planet Earth Chalmers University of Technology, edX (2016).
- Monitoring Climate from Space European Space Agency, FutureLearn (2016).
- IELTS (British Council). Score: 7/9 (2019).
- Full Cave Diver. Technical Diving International (2022).
- Sidemount Diver. Technical Diving International (2022).

## SKILLS

Languages Spanish (native).

French (fluent). English (fluent). Dutch (beginner).

Programming Languages

PYTHON, JULIA, GIT, LATEX.