

# Claudio M. Pierard

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## EDUCATION

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<b>Ph.D. Candidate in Physical Oceanography</b> Utrecht University	2020 - present
<b>Master 2 Environmental Fluid Mechanics</b> Université Grenoble Alpes	2019 - 2020
<b>Master 1 Applied Mechanics</b> Université Grenoble Alpes	2018 - 2019
<b>B.Sc. Physics</b> National Autonomous University of Mexico (UNAM)	2011 - 2017

## EXPERIENCE

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<b>Institute for Marine and Atmospheric Research Utrecht</b> <i>PhD researcher</i> Project: Nanoplastics: origin, structure and fate ( <a href="https://nanoplastics.org">https://nanoplastics.org</a> ) Supervisors: Prof. Erik van Sebille.	October 2020 - present
<b>Laboratoire d'Océanographie Physique et Spatiale</b> <i>Master 2 research internship.</i> Project: Abyssal turbulence in the vicinity of Lucky Strike. Supervisors: Prof. Guillaume Roullet and Dr. Jonathan Gula.	February 2020 - September 2020
<b>Institut des Géosciences de l'Environnement</b> <i>Master 1 research internship.</i> Project: Measurement of turbulence in katabatic winds over a steep alpine slope. Supervisor: Dr. Jean-Emmanuel Sicart.	November 2018 - May 2019
<b>Center for Atmospheric Sciences, UNAM</b> <i>Undergraduate Research Assistant, Ocean-Atmosphere Interaction group.</i> 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.	July 2017 - August 2018
<b>Center for Atmospheric Sciences, UNAM</b> <i>Undergraduate Research Assistant, Laboratory of Geophysical Fluids.</i> Project: Numerical simulations of convection in a stratified fluid using the open source framework Dedalus. Supervisor: Dr. Angel Ruiz-Angulo.	April 2017 - November 2017

## AWARDS

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<b>Make Our Planet Great Again Laureate</b> Master's Excellence Grant for Climate Science and Research.	2018 - 2020
<b>Blue-Cloud Hackathon Winner Team</b> €25,000 for developing the Sea-Clearly tool for tracking plastic pollution reaching aquaculture farms. seaclearly.io	February 2022

## PUBLICATIONS

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- 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](https://doi.org/10.3389/fmars.2022.925437)

## CONFERENCES

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- 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

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- 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.*

## TEACHING

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- Teaching Assistant of Numerical Methods for Physicists and Astronomers (NS-256B).**  
Faculty of Physics, Utrecht University. (2020-21, 2021-22, 2022-23.)

## CERTIFICATIONS

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- **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

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<i>Languages</i>	Spanish (native). French (fluent). English (fluent). Dutch (beginner).
<i>Programming Languages</i>	PYTHON, JULIA, GIT, L <sup>A</sup> T <sub>E</sub> X.