

# Hugo Peyrière

## Research Interests

Ocean and Atmosphere Dynamics ; Theory ; Field Observations ; Idealized Modelling.

## Education

2021 – 2022	<b>MSc in Mechanics (Ocean and Atmosphere) - Institut Polytechnique de Paris</b>
2020 – 2021	<b>MSc in General Structural Engineering - Imperial College London</b>
2017 – 2021	<b>Cycle Ingenieur Polytechnicien (MSc equivalent) - Ecole Polytechnique</b>
2018 – 2019	<b>BA in History - Universite Paris-Nanterre</b>
2015 – 2017	<b>Classe Preparatoire aux Grandes Ecoles (Physics, Mathematics &amp; Chemistry) - Lycee Sainte Genevieve</b>

## Research Experience

2022	<b>Visiting Graduate Student (6 months) - Air–Sea Interaction Laboratory at the Scripps Institution of Oceanography (SIO), San Diego, US</b> Analyzed new surface ocean current, vorticity, divergence and strain observations made through coordinated Wave Glider mounted ADCP measurements. Advisors: <b>Luc Lenain</b> , Nicholas Pizzo, Laurent Grare.
2020 – 2021	<b>Research Assistant (10 months) - STICERD Laboratory at the London School of Economics and Political Science (LSE), London, UK</b> Worked on the environmental and carbon impact of consumption according to income, and inflation inequality across income groups. Advisors: <b>Xavier Jaravel</b> , Lucie Gadenne, Marion Dumas.
2019	<b>Research Assistant (7 months) - Global Green Growth Institute, Seoul, KR</b> Developed a green growth index to assess country sustainable development performance, and the associated public policy numerical simulation tool. Advisor: <b>Lilibeth Acosta–Michlik</b> .

## Publications

2022	Hugo Peyriere, Luc Lenain, Laurent Grare, Nicholas Pizzo, Nicholas M Statom, and J Thomas Farrar. Observation of new surface ocean currents from autonomous surface vehicles. <i>Journal of Atmospheric and Oceanic Technology</i> , In Preparation
2020	Lilibeth A. Acosta, Prapti Maharjan, Hugo Peyriere, and Rusyan Jill Mamiit. Natural capital protection indicators: Measuring performance in achieving the sustainable development goals for green growth transition. <i>Environmental and Sustainability Indicators</i> , 8:100069, 2020

## Presentations

2022	<b>NASA S-MODE Science Team Meeting</b> ( <i>invited talk</i> ) Upper ocean current measurements using Wave Gliders during the S-MODE Pilot.
2019	<b>Paris Peace Forum</b> ( <i>poster</i> ) Enabling climate diplomacy through the use of Paris Agreement Article 6.2 : linking the emissions-trading schemes of two or more countries.
2019	<b>Tokyo International Conference on African Development (TICAD7)</b> ( <i>talk</i> ) A green growth index and simulation tool to evaluate country performances and guide policy.

## Field Experience

OCTOBER 2022	<b>NASA S-MODE (Sub-Mesoscale Ocean Dynamics Experiment), Pacific Ocean</b> Deployed and recovered Wave Gliders in coastal day-long deployments (crane and marine work, diving). Remotely piloted Wave Gliders and designed arrays and trajectories.
JULY 2022	<b>ONR MURI FATIMA (Fog And Turbulence Interactions in the Marine Atmosphere), Atlantic Ocean</b> Deployed and recovered Wave Gliders in two week deployment at sea (crane and marine work, repairs). Remotely piloted Wave Gliders.
NOV. 2017 – APRIL 2018	<b>Deputy Navigation Officer - Destroyer-class French Navy Vessel D621, Mediterranean, Red Sea, Indian Ocean &amp; Persian Gulf</b>

## Fellowships and Awards

2020 – 2021	<b>Fellowship: MSc Cluster Scholarship (50% Tuition Fee) &amp; Departmental Scholarship (50% Tuition Fee) - Imperial College London</b>
2017 – 2020	<b>Award: Outstanding student distinguished through his dedication to the student body - Ecole Polytechnique</b>

## Work Experience

2020	<b>Intern (6 months) - Lazard Sovereign Advisory Division, Paris, FR</b> Economic and infrastructure advisory to developing nations' governments and finance ministries. Designed economic and debt sustainability models, prepared presentations, and wrote notes for the 2020 sovereign debt restructurings of Ecuador and Zambia.
2017 – 2018	<b>Commissioned Officer (9 months) - French Navy, East Africa &amp; Middle East</b> Part of Ecole Polytechnique military service. Followed a 2-month French navy officer course. Embarked for a 6-month deployment at sea on a 200 people/150 metre ship. As Deputy Logistics and Supply Officer, managed ten sailors, completed high-level internal audits and administrative missions, managed logistics and supplies, took charge of the ship's PR and interacted with foreign dignitaries. As Deputy Navigation Officer, took daily shifts at the ship bridge.

## Service, Leadership and Community Engagement

2021 – 2022	<b>Street Library - ATD Quart Monde</b> Weekly street library and help with homework with children aged 5–14 in an underprivileged area of the Paris metropolitan area.
2018 – 2019	<b>Vice-President - Action Sociale de la Kes</b> Student charity at Ecole Polytechnique organizing a range of social actions: language and mathematics classes to refugees, street library, tutoring, homeless soup kitchen. Coordinated 30 volunteers and a 20 000 € budget from donations and fundraising.

## Computational skills

PROGRAMMING LANGUAGES	Python, Fortran, R, Stata, Java, Matlab, SQL, VBA.
TOOLS AND SOFTWARE	Jupyter notebooks, LaTeX, Abaqus, Adaptic, Gmsh, Photoshop.

## Languages and Nationalities

FRENCH	Native language.
ENGLISH	Native language.
SPANISH	Full proficiency.
NATIONALITIES	French, Honduran and British.

## Other Activities and Interests

READING	Literature, Anthropology, Intersectional Politics, Social Ecology.
SPORTS	Open Water Swimming, Boxing, Mountain Biking, Hiking.
MUSIC	Classical Guitar, Electronic Music.
2021	<b>Energy Commission - Europe Ecologie Les Verts (French Green Party)</b> Worked on technical aspects of the Energy program for the 2021 french regional elections.
2019	<b>Volunteer Analyst - Le Grand Continent</b> Researched articles for the energy and environment column of a journal on european geopolitics.

## References

**Dr. Luc Lenain:**

[llenain@ucsd.edu](mailto:llenain@ucsd.edu)

Scripps Institution of Oceanography  
9500 Gilman Drive #0230  
La Jolla, CA 92093, USA  
+1 858-822-4425

**Dr. J. Thomas Farrar:**

[jfarrar@whoi.edu](mailto:jfarrar@whoi.edu)

Woods Hole Oceanographic Institution  
266 Woods Hole Road, MS 29  
Woods Hole, MA 02543, USA  
+1 508-289-2691

**Dr. Alexandre Stegner:**

[alexandre.stegner@lmd.ens.fr](mailto:alexandre.stegner@lmd.ens.fr)

Ecole Polytechnique, CNRS Laboratoire Météorologie Dynamique  
Rte de Saclay,  
91120 Palaiseau, France