Joan Mateu Horrach Pou

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Education

MSc. Physical Oceanography — University of Bergen

2021

Advisors: Prof. Kjetil Våge and PhD. Ailin D. Brakstad.

Thesis topic: Deep weakly-stratified layers in the Greenland Sea.

Academic project in Fjord Oceanography: Vertical Mixing and deep water renewal in Masfjorden (Western Norway)

BSc. Marine Sciences — University of Cadiz

2018

Advisors: Prof. Jesus Gómez Enri and PhD Juan Jesús Gómiz Pascual.

Thesis topic: Spatiotemporal variability of the Gulf Stream using altimetry products.

Research experience

Head Engineer in Data Management — Geopysical Institute (Bergen)

March 2023 — Present

Data transformation, metadata validation and quality control of various oceanographic sensors.

Data Manager — Norwegian Meteorological Institute

June 2022 — September 2022

Data transformation, metadata validation and storage at the Arctic Data Centre.

Research assistant — Bjerkness Centre for Climate Research

November 2020 — February 2022

Decadal prediction skill analysis for winter SST in the Nordic Seas and Arctic Ocean using CMIP6 models.

Student Assistant — University of Cadiz

March 2015 — February 2018

Bibliography research for the Physical Oceanography pensum. Introduction to Synthetic Aperture Radar (SAR) signal processing and analysis.

Field work (59 days)

HAB's Cruise — Chukchi and Beaufort Sea

August 2022 (28 days)

CTD watchstanding and water sampling. PI: Robert S. Pickart

Fjord Oceanography cruise — Masfjorden

April 2020 (7 days)

Campaign design and preparation for microstructure and CTD measurements and mooring deployment. PI: Elin Darelius

CALYPSO 2019 Cruise — Alboran Sea (Spain)

April 2019 (17 days)

Part of the uCTD team and collaborating with microstructure measurements, ADCP data processing, and drifter experiment release. PI: Amala Mahadevan and Eric d'Asaro.

Fjord Oceanography cruise — Bjørnafjorden

February 2018 (7 days)

CTD measurements, calibration, validation, and mooring deployment. PI: Elin Darelius

Publications

Detection and evolution of weakly-stratified layers in the Greenland Sea. (in prep)

Mahadevan et al., (2020). CALYPSO 2019 Cruise Report: field campaign in the Mediterranean.

Oral/Poster communications	
Deep weakly-stratified layers in the Greenland Sea.	— Poster
ASOF Las Palmas (Spain), 2023	
Dense water formation in the Nordic Seas	— Oral Communication
Opening of the Marine Sciences Student Symposium (SACMA) at the University	ersity of Cadiz (Spain), 2023
Physical drivers of the phytoplankton blooms around Iceland.	— Oral Communication
THOR Akureyri, 2023	
Heat Flux and SST prediction skill in the Nordic Seas in CMIP6.	— Oral Communication
Multi-annual to Decadal Climate Predictability in the North Atlantic-Arctic	
Deep weakly-stratified layers in the Greenland Sea.	— Oral communication
THOR Geilo, 2022	
Sub-mesoscale coherent vortices in the Greenland Sea	— Oral Communication
CIRCO-Universidad de Cadiz, 2021	
Heat Flux and SST prediction skill in the Nordic Seas using NorCPM.	— Oral Communication
Bjerkness Climate Prediction Unit seminars, 2020	
Spatiotemporal variability of the Gulf Stream using altimetry products.	— Oral Communication
International Symposium of Marine Sciences (Vigo, Spain), 2018	
Seasonal to decadal variability in the Gulf Stream.	— Poster
Marine Sciences Student Symposium (SACMA) at the University of Cadiz (S	Spain), 2018
Internships	
Research internship — GEOMAR	May 2019 — October 2019
OSNAP data processing focusing on the Deep Western Boundary Current mo	ooring array at 53°N.
Summer Internship — IMEDEA-UIB-CSIC	May 2018 — September 2018
Altimetry data processing and evaluation.	
Research Internship — Geophysical Institute	February 2018 — May 2018
Amundsen Sea data processing.	
<u>Teaching experience and supervision</u> Sonia Dominguez, Bs Thesis — Universidad de las Palmas de Gran Canaria	(ULPGC, 2023)
Subject: Mixed-layer depth and sea ice concentration variability in the Green	

Awards

Fast-track initiative funding — Bjerkness Centre for Climate Research, 2021

The project *Sub-mesoscale coherent vortices in the Greenland Sea* was awarded 3 months of funding in order to publish an academic paper in a peer-reviewed journal.

International Conferences and retreats	
Arctic and Sub-arctic Ocean Fluxes (ASOF) workshop	Las Palmas (Spain), 2023
THOR: Transatlantic High-latitude Oceanography Retreat	Akureyri (Iceland), 2023
THOR: Transatlantic High-latitude Oceanography Retreat	Geilo (Norway), 2022
Multi-annual to Decadal Climate Predictability in the North Atlantic-Arctic	Copenhagen (Denmark), 2022
Extracurricular courses and Summer Schools	
Time Series Analysis: Theory and Practice by J. Lilly	online, 2022
Climate Dynamics Summer School	Utrecht (Netherlands), 2018
European Space Agency Summer School	ESA-Frascati (Italy), 2016