

● LANGUAGE SKILLS

Mother tongue(s): FRENCH

Other language(s):

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|---------------|---------|-------------------|--------------------|---------|
| | Listening | Reading | Spoken production | Spoken interaction | |
| ENGLISH | C1 | C1 | C1 | C1 | C1 |
| SPANISH | C1 | C1 | C1 | C1 | C1 |
| GERMAN | B1 | B1 | B1 | B1 | B1 |
| CATALAN | B2 | B2 | B2 | B2 | B2 |

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● WORK EXPERIENCE

10/01/2017 – CURRENT – Liège, Belgium
POST-DOCTORAL RESEARCHER – UNIVERSITY OF LIÈGE

Development of spatial interpolation tools applied to oceanographic data.
Oceanographic data analysis using in situ and satellite measurements.
Study of small-scale processes in coastal upwelling system.

17/03/2014 – 09/01/2017 – Palma, Spain
HEAD OF THE DATA CENTER FACILITY – BALEARIC ISLANDS COASTAL OCEAN OBSERVING AND FORECASTING SYSTEM (SOCIB)

- Management of the projects and staff.
- Relations with external users (national and European), data providers and other facilities.
- Development of applications for the access and visualisation of oceanographic data.
- Forecasting of extreme sea level events (*rissaga*) using time series.
- Acquisition and processing of satellite, remote-sensing data (wind, salinity sea surface temperature, chlorophyll concentra on).
- Analysis and interpretation of multi-platform observations (HF radar, satellite, fixed stations, mobile platforms).

01/03/2013 – 16/03/2014 – Esporles, Spain
POST-DOCTORAL RESEARCHER – MEDITERRANEAN INSTITUTE FOR ADVANCED STUDIES (IMEDEA) - UIB/CSIC

- Preparation of high-resolution altimetry products in the Mediterranean Sea (**MyOcean 2** project).
- Analysis of in situ and remote-sensed data in the Balearic Sea.
- Processing (interpolation, filtering) and interpretation of multi-sensor measurements (High-frequency radar, underwater glider, altimeter).
- Operational production of regional altimetry maps (satellite imagery).

10/01/2010 – 28/02/2013 – Liège, Belgium
POST-DOCTORAL RESEARCHER – UNIVERSITY OF LIÈGE

- Supervisor of the laboratory "*Microscopes*" for undergraduate students.
- Analysis of total-suspended ma er images on the North Sea.

- Spatio-temporal interpolation of satellite wind data.
- Improvement and testing of **DIVA** interpolation software tool.

01/10/2006 – 09/2010 – Liège, Belgium

PHD CANDIDATE – FUND FOR RESEARCH TRAINING IN INDUSTRY AND AGRICULTURE (NATIONAL FUND FOR SCIENTIFIC RESEARCH, BELGIUM)

- Study of the upwelling filament off Cape Ghir (Northwest Africa).
- Hydrographic climatology for the North-East Atlantic Ocean.
- Implementation of the **ROMS** model at high-resolution around Cape Ghir and design of process-oriented experiments.
- Participation to the **CAIBEX** cruise onboard *Sarmiento de Gamboa* (summer 2009) off Cape Ghir and processing of the cruise data.

● **DIGITAL SKILLS**

Fluid mechanics | Aerodynamics | Finite-Element Method | Atmospheric Physics | High-performance computing | Time-Series Analysis

Programming

Functional programming | Object-oriented programming | Unit testing | Control version system | Continuous integration

Programming languages

Julia | Python | LaTeX | MATLAB | Fortran | Bash | JavaScript | Tcl/Tk

Data analysis

Data visualisation | Spatial interpolation | Signal processing | Data quality control | Data mining | Statistics

Oceanography

Satellite Image Processing | Numerical simulation | Gliders | High-frequency radar

● **PUBLICATIONS**

Variational interpolation of high-frequency radar surface currents using DIVAd

<https://link.springer.com/article/10.1007/s10236-020-01432-x> – 2020

Editorial to the Liège Colloquium Special Issue: Long-term studies in oceanography – a celebration of 50 years of science at the Liège Colloquium (1969 – 2018)

<https://link.springer.com/article/10.1007/s10236-020-01421-0> – 2020

DINCAE 1.0: a convolutional neural network with error estimates to reconstruct sea surface temperature satellite observations

<https://gmd.copernicus.org/articles/13/1609/2020/> – 2020

Effects of Oceanic Mesoscale and Submesoscale Frontal Processes on the Vertical Transport of Phytoplankton

<https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2019JC015034> – 2019

The AlborEX dataset: sampling of sub-mesoscale features in the Alboran Sea

<https://www.earth-syst-sci-data.net/11/129/2019/> – 2019

The 48th Liege Colloquium: Submesoscale processes: mechanisms, implications, and new frontiers

<https://link.springer.com/article/10.1007/s10236-018-1173-5> – 2018

Mediterranean Sea climatic indices: monitoring long-term variability and climate changes

<https://essd.copernicus.org/articles/10/1829/2018/> – 2018

Mediterranean Sea Hydrographic Atlas: towards optimal data analysis by including time-dependent statistical parameters

<https://www.earth-syst-sci-data.net/10/1281/2018/> – 2018

Data Interpolating Variational Analysis for the Generation of Atmospheric Pollution Maps at Various Scales

https://link.springer.com/chapter/10.1007%2F978-3-319-57645-9_37 – 2017

Numerical study of Balearic meteotsunami generation and propagation under synthetic gravity wave forcing

<http://www.sciencedirect.com/science/article/pii/S1463500317300136> – 2017

A multiplatform experiment to unravel meso- and submesoscale processes in an intense front (AlborEx)

<http://journal.frontiersin.org/article/10.3389/fmars.2017.00039/full> – 2017

OceanBrowser: on-line visualization of gridded ocean data and in situ observations

<http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf> – 2016