Aimie Moulin

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Skills

Computing Skills

- Fortran
- MPI
- Shell
- Matlab
- Simulink
- Open Foam (C++)
- Scilab
- NetCDF + NCO
- Paraview
- LaTeX
- Pack office
- UNIX & Windows

Ocean and waves model

- CROCO
- WaveWatch3
- OASIS-MCT
- COAWST: (SWAN+ROMS)

Languages

French	Mother tongue
English	B2
Spanish	C2
Italian	A2

Other

Driving licence B

Work Experience

2020-present, CMCC — **Junior Scientist**.
Centro Euro-Mediterraneo sui Cambiamenti Climatici
- Development of the CMCC Mediterranean model with a focus on the wave-current coupling and wave-induced mixing

2016-2020, CICESE — **Post-doctoral position in hydrodynamic modeling**.
Centro de Investigación Científica y de Educación Superior Ensenada
- Numerical assessment of the impact of the wave-current interaction on the hydrodynamics of the Gulf of Mexico

2012-2015, LEGI — **Ph.d in geophysical fluid dynamics**.
Laboratoire des Écoulements Géophysiques et Industriels
- Air-sea interaction at the synoptic and the meso-scale

2013-2015, UJF/INPG — **Teaching at University and Ingeneer school**.
- Mathematics applied to geosciences
- Scilab introduction and numerical analysis
- Numerical project on natural system with Simulink

2014, once a week — **Teaching of science at elementary school**.
water phase changes, types of movement

20121, LEGI (6 months) — **Internship in geophysical fluids dynamic**.
Laboratoire des Écoulements Géophysiques et Industriels
- Air-sea interaction at the synoptic and the meso-scale

2011, LTHE (3 months) — **Internship in hydrology**.
Laboratoire d'Etude des Transferts en Hydrologie et Environnement
- Numerical modeling of runoff infiltration and solute transport in the Django Reinhardt infiltration basin

2009-2012 — **Private Tuition in Mathematics and Physics**.
employer: Acadomia, Complétude

Education

2014 — **European Research Course on Atmosphere**.

2010-2012, UJF — **Master's degree in water, climate, and environment**.
Université Joseph Fourier

2007-2010, UJF — **Licence's degree in geophysics and mechanics**.
Université Joseph Fourier

2007 — **Animation Capacity Diploma**.

Publications and meeting

Article **An assessment of the GlobCurrent database under strong gap–wind conditions**, *M. Larrañaga, B. Esquivel–Trava, P. Osuna, F.J. Ocampo–Torres, N. Rascle, H. García–Nava, A. Moulin*, submited.

Article **Momentum transfer between an atmospheric and an oceanic layer at the synoptic and the mesoscale: an idealized numerical study**, *A.Moulin, A.Wirth, Boundary-Layer Meteorology, 2016, Vol. 160, Issue 3, pp 551-568.*

Article **A drag induced barotropic instability in air-sea interaction**, *A.Moulin, A.Wirth, 2014, Journal of Physical Oceanography, Vol. 44, No. 2, p733-741.*

Talk, 2019 **UGM 2019**, *Waves effect on near-surface mixing and surface drift, in the Gulf of Mexico.*

Talk, 2018 **UGM 2018**, *Improvement of the Stokes drift profil with the Brevik approximation in the coupled system CROCO-WW3.*

Talk, 2017 **UGM 2017**, *The wave-current interaction in the Gulf of Mexico: An assessment of the coupled system COAWST.*

Talk, 2015 **EGU 2015**, *Interaction and energy transfer between an atmospheric and an oceanic layer at the synoptic and the meso-scale.*

Talk, 2014 **New challenges in turbulence research III**, *A drag induced barotropic instability in air-sea interaction.*

Talk, 2013 **Atelier Astrofluide III**, *A drag induced barotropic instability in air-sea interaction.*

Poster, 2020 **Surface currents in the coupled ocean-atmosphere system workshop, Scripps University** , *Ekman surface drift under the influence of waves and turbulence.*

Poster, 2017 **1st Workshop on Waves, Storm Surges and Coastal Hazards**, *The wave-current interaction in the Gulf of Mexico: an assessment of the coupled system COAWST.*

Poster, 2015 **EGU 2015**, *On the predominance of the atmospheric wake for the ocean circulation around islands. A numerical coupled Atmosphere-Ocean study.*

Poster, 2013 **EGU 2013**, *A drag induced barotropic instability in air-sea interaction.*