Bethany McDonagh

Education

University of Bologna
Bologna, Italy
2020-2024

PhD Future Earth, Climate Change, and Societal Challenge
Provisional thesis title: *Study of vertical motion and mixing in the Mediterranean Sea using a baroclinic tidal model*, supervised by Dr. Emanuela Clementi and Prof. Nadia Pinardi.

University of Reading
Reading, UK
2019-2020

MSc Atmosphere Ocean and Climate, distinction with average 77%
Dissertation title: *The future of the global monsoon in the CMIP6 model experiments*, supervised by Prof. Andrew Turner and Dr. Amulya Chevuturi.

University of Warwick
Coventry, UK
2013-2016

BSc Physics
Dissertation title: *Automated Identification of Structures in the Solar Corona*, supervised by Dr. Erwin Verwichte

Skills

Technical

Python, Linux, Fortran, Bash, netCDF, CDO, LaTeX, PHP, JavaScript

Languages

English: native
Italian: CEFR B2 level

Work Experience

PhD candidate
Centro Euro-Mediterraneo sui Cambiamenti Climatici
Bologna, Italy
11/2020-present

My PhD project at the University of Bologna is funded by CMCC, so my daily work is part of their research and takes place in their offices. Study of vertical motion and mixing in the Mediterranean Sea using a baroclinic tidal model in the Mediterranean Sea group of the Ocean Modeling and Data Assimilation division, supervised by Dr Emanuela Clementi (CMCC) and Professor Nadia Pinardi (University of Bologna).

Visiting Researcher
Max Planck Institute for Meteorology
Hamburg, Germany
01/2023-04/2023

Visiting period as part of my PhD programme at the University of Bologna. Study of internal tides in the Mediterranean Sea with Professor Jin-Song von Storch in the Ocean Energetics group.

Tutor (freelance)
02/2021-07/2022

Tutoring A-Level (high school) physics and mathematics to a student through online sessions.

Brainlabs is a large digital-first media agency based in London, UK. I worked in their technology department from 2016-2019, after joining their graduate scheme in 2016.

Group Account Director **Brainlabs** 07/2019-09/2019	Leading on software design and quality control of technology products. Leading a larger team and guiding the direction of the department. Leading on strategy for a wide variety of clients.
Tech Account Director **Brainlabs** 01/2018-06/2019	Designing technology products and contributing to large code bases using object oriented design structures. Managing a team with a wide range of skills to service a varied group of clients. Pitching the business to potential new clients, in the UK and internationally.
Tech Account Manager **Brainlabs** 09/2016-12/2017	Providing technology solutions for PPC to our clients, using JavaScript, Python and PHP, with the goal to improve efficiency, boost performance and add value to their business. Auditing and analysing data for clients, providing them with insights and recommendations.

Conference Presentations

International Workshop on Modelling the Ocean 2023	McDonagh, B., von Storch, J.-S., Clementi, E., and Pinardi, N.: Internal tides in the Mediterranean Sea, IWMO 2023, Hamburg, Germany, 27-30 June 2023.
European Geosciences Union 2023	McDonagh, B., Clementi, E., and Pinardi, N.: The characteristics and effects of tides on the general circulation of the Mediterranean Sea, EGU General Assembly 2023, Vienna, Austria, 24–28 April 2023, 2023.
MonGOOS General Assembly 2022	McDonagh, B., Clementi, E., and Pinardi, N.: Study of the effect of tides on vertical motion and mixing in the Mediterranean Sea using numerical experiments, MonGOOS General Assembly 2022, Florence, Italy, 22–23 November 2022.
European Geosciences Union 2022	McDonagh, B., Clementi, E., Pinardi, N., Goglio, A. C., and Cessi, P.: The effects of tides on vertical motion in the Mediterranean Sea, EGU General Assembly 2022, Vienna, Austria, 23–27 May 2022, EGU22-7628, https://doi.org/10.5194/egusphere-egu22-7628, 2022.

Volunteering

Schistosomiasis Control Initiative 10/2018	Used CSS to create a new website for the charity according to a brief, alongside other volunteers. The project allowed this effective charity to more easily receive donations, and receive advertising funding from Google where previously they were not eligible.

Last updated: June 2023.