

Marisa Roch

Ocean and Climate Physicist • Climate System Specialist

Contact

Dr. rer. nat. Marisa Roch
Dörpstraat 10
24229 Dänischenhagen
Germany
+49 160 91315545
marisaroch@icloud.com

Day and place of birth

21.12.1994 in Hamburg,
Germany

Skills

Language Skills

- German (native tongue)
- English (fluently)
- French (from school)
- Danish (Understanding)

Software Skills

- Matlab
- Latex
- Microsoft Office
- Affinity Designer

Soft Skills

- Motivated & Organized
- Goal-oriented
- Team-oriented
- Creative
- Conscience
- Time management
- Communication

Professional Experiences

- 03/2020 - today** Research associate and doctorate at GEOMAR Helmholtz-Centre for Ocean Research Kiel, Germany
- Data analysis, interpretation and visualization
 - Writing scientific publications
 - Measurements and investigation at sea
 - Presenting scientific work
 - Writing my doctoral thesis

- 11/2019 - 12/2019** Research associate at GEOMAR Helmholtz-Centre for Ocean Research Kiel, Germany
- Data analysis, interpretation and visualization
 - Writing a scientific proposal

- 2015 - 2018** Student assistant at GEOMAR Helmholtz-Centre for Ocean Research Kiel, Germany (temporal contracts)
- Data analysis, interpretation and visualization

- 2016 - 2018** Coach at Kieler Yacht-Club e.V.
- Youth boat classes

- 01 - 19/08/2016** Internship at WetterWelt GmbH in Kiel
- Weather forecasting

- 26/09 - 07/10/2011** School internship at Point of Sailing Marketing GmbH in Kiel
- Sailing event preparation and sponsoring acquisition

- 22 - 26/02/2010** School internship at WetterWelt GmbH in Kiel
- Weather forecasting

Education

- 04/2020 - 12/2023** Doctoral student at the Christian-Albrechts-Universität zu Kiel
Doctoral thesis: "On the Changing Upper-Ocean Stratification - Trends and Variability of the Upper-Ocean Structure during the Argo Observation period"
magna cum laude (very good)

Personal Interests

- Sailing since 2001 and ambitious sailing at international regattas since 2005
- Windsurfing
- Wingfoiling
- Sports and Health
- Cooking
- Drawing

- 10/2017 - 09/2019** M. Sc. Climate Physics - Meteorology and Physical Oceanography at the Christian-Albrechts-Universität zu Kiel
Masterarbeit: "Observed trends and variability of heat content in the upper tropical Atlantic Ocean"
Graduated with 1.1
- 04/2017 - 09/2017** M. Sc. Geophysics at the Christian-Albrechts-Universität zu Kiel
- 10/2013 - 03/2017** B. Sc. Physics of the Earth system at the Christian-Albrechts-Universität zu Kiel
Bachelorarbeit: "Tropical Pacific Freshwater Variability an ENSO"
- 2005 - 2013** Abitur at the Gymnasium Goethe-Schule in Flensburg

Experience at Sea

- 05/2023 - 06/2023** Research cruise on RV Maria S. Merian from Recife, Brazil to Ponta Delgada, Azores /Portugal
- Collecting and analyzing data
 - Team lead for the Microcats
 - Measurements with CTD, uCTD and microstructure
- 04/2022 - 05/2022** Research cruise on RV Meteor from Cape Town, South Africa to Mindelo, Cape Verde
- Collecting and analyzing data
 - Measurements with CTD and microstructure
- 06/2021 - 08/2021** Research cruise on RV Sonne into the tropical Atlantic, start and end harbor: Emden, Germany
- Collecting and analyzing data
 - Team lead for the Microcats
 - Measurements with CTD
- 02/2018 - 03/2018** Research cruise on RV Meteor from Mindelo, Cape Verde to Recife, Brazil
- Measurements with CTD

List of Scientific Publications

Roch, M., Brandt, P., and Schmidtko, S. (2023). Recent large-scale mixed layer and vertical stratification maxima changes. *Front. Mar. Sci.* 10; 1277316. doi: 10.3389/fmars.2023.1277316

Roch, M., Brandt, P., Schmidtko, S., Vaz Velho, F. and Ostrowski, M. (2021). Southeastern Tropical Atlantic Changing From Subtropical to Tropical Conditions. *Front. Mar. Sci.* 8; 748383. doi: 10.3389/fmars.2021.748383

Brandt, P., Bordbar, M.H., Coelho, P., Imbol Koungue, R. A., Körner, M., Lamont, T., Lübbecke, J.F., Mohrholz, V., Prigent, A., Roch, M., Schmidt, M., Van der Plas, A. & Veitch, J. (2024). Physical Drivers of Southwest African Coastal Upwelling and Its Response to Climate Variability and Change. In: von Maltitz, G.P., et al. Sustainability of Southern African Ecosystems under Global Change. *Ecological Studies*, vol 248. Springer, Cham. doi: 10.1007/978-3-031-10948-5_9

Brandt, P., Alory, G., Awo, F. M., Dengler, M., Djakouré, S., Imbol Koungue, R. A., Jouanno, J., Körner, M., Roch, M., and Rouault, M. (2023). Physical processes and biological productivity in the upwelling regions of the tropical Atlantic. *Ocean Sci.*, 19; 581–601. doi: 10.5194/os-19-581-2023

Experiences as a Referee

- 2020 - 2023** Several scientific conferences and presentations
- 2022** Storytelling presentation at Ocean Summit in Kiel, Germany
- 2016 - 2018** Weather seminars at Kieler Yacht-Club e.V.

Recent Successes in Sailing

- 2023** 2. Place at Kieler Woche
9. Place at the World Championship
- 2022** 3. Place at Kieler Woche
6. Place at the World Championship
- 2019** German Vice Champion
8. Place at the World Championship