

Rafael Gonçalves-Araujo

Year of birth: 1986

ORCID

0000-0001-8344-8326

Degrees

BSc Oceanography, Institute of Oceanography, Federal University of Rio Grande, Brazil (2009).

MSc Biological Oceanography, Institute of Oceanography, Federal University of Rio Grande, Brazil (2012).

PhD Natural Sciences, Faculty of Biology and Chemistry, University of Bremen, Germany (2016).

Positions

PhD student, Alfred Wegener Institute of Polar and Marine Research, Germany (2013-2016).

Postdoctoral Fellow, Oceanographic Institute, University of São Paulo, Brazil (2017-2018).

Postdoctoral Researcher, Department of Biosciences, Aarhus University, Denmark (2018-2019).

Marie Curie Postdoctoral Fellow, Section for Oceans and Arctic, DTU Aqua, Denmark (2019-2021).

Postdoctoral Researcher, Section for Oceans and Arctic, DTU Aqua, Denmark (2021-2022).

Tenure Track Researcher, Section for Oceans and Arctic, DTU Aqua, Denmark (2022-2025).

Associate Professor, Section for Oceans and Arctic, DTU Aqua, Denmark (since Mar 2025).

Research area

I am a multidisciplinary oceanographer lying at the interfaces of biology, chemistry, physics and data science, and my overall goal is to advance the understanding of the impacts of climate changes in marine ecosystems and further societal implications. I investigate the biogeochemical processes related to the carbon cycle in polar and temperate marine ecosystems by employing multiscale, complementary approaches spanning traditional water sampling to state-of-the-art in situ sensor based monitoring and satellite remote sensing.

Distinctions and awards

Best Oral Presentation – Brazilian National Oceanography Week (2010).

Best Oral Presentation – II Workshop Association of Polar Early Career Scientists-Brazil (APECS-Brazil) (2012).

Summa Cum Laude for PhD Thesis, University of Bremen (2016).

Memberships of scientific committees, 2021-present

Association for the Sciences of Limnology and Oceanography (ASLO).

The Oceanography Society (TOS).

Publications

Type of publication:	Number
Web of Science publications:	24
Citations:	495
<i>h</i> -index:	10
Other peer review publications:	3
Books:	0
Book chapters:	1
Reports:	2

International conferences, 2021-present

Type of participation:	Number
Contributions as first author:	5
Invited:	1
Organizing role:	2

Evaluation tasks

Review Editor for *Frontiers in Marine Science* – Ocean Observation Section.

Review Editor for *Frontiers in Environmental Science* – Biogeochemical Dynamics Section.

Proposal Reviewer for *ArcticNET - Network of Centres of Excellence of Canada*.

Ad hoc reviewer for *Journal of Geophysical Research*, *Marine Chemistry*, *Geophysical Research Letters*, *Limnology & Oceanography*, *Remote Sensing of Environment*, *Journal of Remote Sensing*, *Biogeosciences*, *Atmospheric Research*, *Frontiers in Marine Science*, *Scientific Reports*, *Deep Sea Research I*, *PLoS ONE*, *Ocean Science*, *Oceanologia*, *Regional Studies in Marine Science*, *Journal of Oceanography*, *Polarforschung*, *Canadian Journal of Remote Sensing*, *Frontiers of Earth Science*, *Brazilian Journal of Oceanography*.

Educational tasks at academical level, 2021-present

Course responsible (25340 Digital Ocean), MSc in Ocean Engineering (DTU Aqua)

Course co-responsible (25102 Oceanography), BSc summer course (DTU Aqua)

Guest lecturer (contributor), DTU Aqua (Applied Ocean Observation Technologies, Biological Oceanography).

Guest lecturer (responsible), Helmholtz Graduate School for Polar and Marine Research–POLMAR, Germany.

Session chair in international scientific conferences, 2021-present

- Session "Towards a three-dimensional monitoring of Greenlandic marine ecosystems" – European Polar Science Week 2024.

Invited lectures and seminars, 2021-present

- *Shedding light on the Arctic: Aquatic optics and ocean color applications for hydrography and biogeochemistry*, Finnish Environmental Institute (SYKE), Finland

- *Aquatic Optics and Ocean Color Remote Sensing*, University of Southern Denmark (SDU), Denmark

- *Aquatic Optics: a complementary tool to better understand the oceans*, ICM-CSIC, Spain

- *Dissolved Organic Matter (DOM): a potential tracer for Arctic water masses*, APECS-DK, Webinar, Denmark

Supervision, ongoing or finished in 2021 or later

	Principal/main supervisor	Co-supervisor
Other (MSc etc.)	3	1
PhD:	1	1
Postdoc:	N/A	1

Grants (competitive), ongoing or finished in 2021 or later

EU Marie Curie Individual Postdoctoral Fellowship, 212 000 € (PI).

EU ARICE Ship time Grant (NoTAC Project), 45 000 € and 7 berths for two Polar Expeditions (PI).

ESA Fresh4Bio project, 500 k€ (Scientific co-leader).

DANCEA Greenland Coastal Colour Project, 1 M DKK (Work package leader).

DFF WaterColour Project, 6.2 M DKK (PI).

Selected publications

Lønborg C, et al. (2025). Dissolved organic carbon in coastal waters: Global patterns, stocks and environmental physical controls. *Global Biogeochemical Cycles* 39 (5), e2024GB008407.

Gonçalves-Araujo R, et al (2023). A Pan-Arctic Algorithm to Estimate Dissolved Organic Carbon Concentrations From Colored Dissolved Organic Matter Spectral Absorption. *Geophysical Research Letters*, 50 (21), e2023GL105028.

González-Silvera C, et al. (2023). Basin-scale variability in phytoplankton size-abundance spectra across the Atlantic Ocean. *Progress in Oceanography* 217, 103104

Stedmon C, et al. (2021). Insights into water mass origins in the central Arctic Ocean from in-situ dissolved organic matter fluorescence. *Journal of Geophysical Research: Oceans* 126 (7), e2021JC017407

Gonçalves-Araujo R, et al. (2020). A decade of annual Arctic DOC export with Polar Surface Water in the East Greenland Current. *Geophysical Research Letters*, 47 (20), e2020GL089686. 10.1029/2020GL089686.

Participation in oceanographic expeditions, 2021-present

FS2021 – Fram Strait, R/V Kronprins Haakon (3 weeks) – Team leader

AO2022 – Central Arctic, R/V Kronprins Haakon (3 weeks) – Team leader

GCC2023 – Nuup Kangerlua (1 week) – Team leader