Prof. Dr. Eleanor Frajka-Williams

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Biography

I am a physical oceanographer who uses ocean observations to investigate ocean dynamics and circulation in a changing climate. I have a particular interest in problems spanning scales (from turbulence to the large-scale overturning circulation) or spheres (e.g., biogeosphere), and in methods that leverage traditional observations with new platforms and satellite data.

Professional Experience

Professor, Universität Hamburg, DE	2022–present
German Research Fleet Coordination Centre, Universität Hamburg, DE	2024–present
Science Leader, National Oceanography Centre, UK	2022
Principal Research Scientist, National Oceanography Centre, UK	2018–22
Associate Professor, University of Southampton, UK	2016–2018
Visiting Scientist, NASA Jet Propulsion Laboratory, USA	2016
Lecturer, University of Southampton, UK	2012–16
Senior Research Fellow, National Oceanography Centre, UK	2009–12

Education

Ph.D. in Physical Oceanography, University of Washington (with Peter Rhines)	2009
M.Sc. in Applied Mathematics, University of Washington	2009
M.Sc. in Oceanography, University of Washington (with Eric Kunze)	2005
A.B. in Applied Mathematics, Harvard University (with Ana Barros)	2002

Awards & Honors

Ocean Observing Team Award, The Oceanography Society	2021
Nicholas P. Fofonoff award, American Meteorological Society	2021
EGU Outstanding Early Career Scientist award	2017
Steinbach Scholar at Woods Hole Oceanographic Institution (WHOI)	2016
Vice Chancellor's teaching award (UoS FNES, £1000 prize)	2015
Fellow of the Higher Education Academy (FHEA)	2015
Excellence in Teaching Award, category: Best Feedback (UoS FNES)	2014
Outstanding student paper award, AGU/ASLO Ocean Sciences	2008
WHOI Geophysical Fluid Dynamics Fellowship	2004
UW Program on Climate Change Fellowship	2002
Summer Undergraduate Research Fellow at Scripps Inst. of Oceanogr.	2000
Certificate of Distinction for teaching (Harvard)	2000
Research Science Institute at the Massachusetts Institute of Technology	1997

Funding

AEI-DFG, DS MIXSED (PI), €932k	2025–28
DFG Large equipment, Swarm of Gliders (PI), €2.2M	2024–25
EU Horizon Europe, EPOC (PI), €8M	2022–27
UKRI-funded (ERC) fellowship PycnoGen (co-I), €3.5M	2022–27
NERC Highlight topic, DEFIANT (co-I), £5M	2021–25
NERC UK BGC Argo array (co-I), £1.5M	2021–23
NERC Next generation multi-disciplinary array, BGC-RAPID (co-I), £570k	2021–22
NERC Net Zero Oceanographic Capability, NZOC (co-I), £250k	2020
NERC Large Grant, DeCAdeS (co-I), NE/T012714/1, £3.4M	2020–25

Lloyd's Register autonomy demonstrator, ALADDIN (co-I), £165k	2020
ERC Starting Grant Fellowship, TERIFIC (PI), 803140, €1,999k	2018–23
NERC Standard grant, BLT Recipes (co-I), NE/S001433/1, £889k	2018–23
NERC Standard grant, DynOPO (co-I), NE/K013181/1, £968k	2015–19
NERC Standard grant, MerMEED (PI), NE/N001745/1, £1,048k	2016–19
NERC Technology grant, FreshWATERS (co-I), NE/P003176/1, £171k	2016–17
NERC Sensors on AUVs, GliSENEx (co-I), NE/J020184/1, £150k	2013–17
Leverhulme Trust Research Fellowship (PI), £14k	2016
Southampton Marine & Maritime Institute stimulus fund (co-I), £15k	2016
Huckabay Teaching Fellowship, UW	2008
National Science Foundation Graduate Research Fellowship, 3 years	2004–07
National Defense Science & Engineering Graduate, Fellowship, 2 years	2002–04

Field Experience (responsibility in brackets)

FS Maria S. Merian (pressure sensors), EPOC deployment cruise, 3 weeks	Sep 2023
Qaqortoq, Greenland (gliders), Small boat, 2 weeks Dez	Dec 2021
RRS Discovery (instrument allocations), RAPID moorings cruise, 8 weeks	Dec 2020
RRS James Cook (instrument allocations), RAPID moorings cruise, 4 weeks	Mar 2020
Qaqortoq, Greenland (team lead), Small boat, 1 week Aug, 2 weeks	Dec 2019
R/V Walton Smith (training the PSO), MerMEED VMP/ADCP cruise, 2 weeks	Mar 2018
R/V Walton Smith (as PSO), MerMEED VMP/ADCP cruise, 2 weeks	Oct 2017
RRS James Clark Ross (Autosub), DynOPO process cruise, 7.5 weeks	Mar 2017
R/V Walton Smith (as PSO), MerMEED VMP/ADCP cruise, 1 week	Dec 2016
RRS James Clark Ross (CTD), DynOPO moorings & A23 section, 5 weeks	Mar 2015
RRS James Cook (underway/ADCP), RAPID moorings cruise, 6 weeks	Apr 2014
R/V Knorr (as UK PSO), RAPID moorings cruise, 3 weeks	Apr 2011
RRS Discovery (moorings), RAPID moorings cruise, 5 weeks	Dec 2010
R/V Wecoma (CTD/XCP), Internal waves over the Oregon slope, 2 weeks	Sep 2005
R/V Wecoma (microstructure/XCP), Hawaiian ridge waves & mixing, 3 weeks	Aug 2002
R/V Revelle (CTD/radiosonde), Juan de Fuca ridge movement, 2 weeks	Aug 2000

Teaching Experience (UHH = Hamburg, UoS = Southampton)

63-713 ADVANCE: Sea-going oceanography, UHH	2024
63-710 Oceanic Exercises, UHH	2024
63-716/7 Regional Oceanography, UHH	2023, 2024
Physics of the Ocean summer school, Bad Honnef, DE	2023
63-705/6 Observational Methods and Remote Sensing, UHH	2022–24
Proposal writing (5 sessions) for ECRs, NOC	2019
NEXUSS Statistics & Data Analysis, NOC	2018
ISNAO summer school, Bonne Bay, Canada	2017
SOES3010/6005: Large Scale Ocean Processes, UoS	2014–17
SOES2025: Methods in Oceanography, UoS	2014–17
SOES3018: Falmouth fieldwork course, UoS	2017
SOES6070: Advanced fieldwork course, UoS	2012–14
SOES3035: Research training, UoS	2013
SOES3016: Oceanography from Space, UoS	2012, 2013
OCN506: Communicating Science with Figures, UW	2008

Mentorship and Supervision

Postdocs/Research Scientists: Joel Bracamontes Ramirez (2024–present), Simon Wett (2024–present), Elodie Duyck (2023–present), Louis Clement (2020–22), Darren Rayner (2020–22), Alejandra Sanchez-Franks (2019–21), Ben Moat (2019–22), Ilona Goszczko (2019–21), Carl Spingys (co-, 2017–20), D. Gwyn Evans (2016–19), Cristian Florindo-Lopez (2016)

PhD Students: Lara Heyl, Emelie Breunig, Maria-Jesus Rapanague (panel), Morag Forthingham (panel), Chris Auckland (co-), Markus Ritschel (co-, PhD'24), Manish Devana (committee, PhD'23), Delphine Lobelle (co-, PhD'19), Neela Morarji (co-, PhD'18), Freya Garry (PhD'17), Lena Schulze (PhD'16), Victoria Hemsley (co-, PhD'16), Louis Clement (PhD'14)

BSc and MSc dissertations: >30 dissertations supervised since 2010. Of note: Jemima Rama† (MSci, 2016), Jo Ribeiro† (MSci, 2015), Lisa Holton* (BSc, 2013), Maren Richter (Kiel Univ., 2014) and Atul Kumar Yadev (IIT Bhubaneswar, 2013). **dissertation award, †top student award*

Professional Activities

Committees:

AMS Oceanographic Research Awards Committee	2023–present
UHH MIN Faculty: Large equipment	2023–present
CLIVAR AMOC Task Team, co-chair	2021–present
CLIVAR Atlantic Regional Panel (ARP) co-chair	2021–present
CLIVAR Atlantic Regional Panel (ARP) member	2019–20
Royal Society Newton International Fellowships, Physical Sciences	2018–22
NERC Peer Review College member	2016–22
NEXUSS Centre for Doctoral Training (co-Director)	2017–18
Women in Ocean and Earth Sciences at Southampton	2014–16
UoS Employability representative	2012–16
UW Student-faculty representative	2008

Organisation of Conferences / Workshops / Seminars:

AMOC Workshop: Observation needs in a changing climate	2023
NZOC Workshop: 21st century marine scientist	2021
EGU General Assembly, Vienna: Ocean Circulation	2019
IUGG general assembly, Prague: MOC & Deep Currents	2015
AGU Fall Meeting, San Francisco: AMOC, climate variability and change	2014
Ocean Sciences, Honolulu: Frontiers in Oceanographic Data & Methods	2014
US AMOC/UK RAPID international meeting, Baltimore	2013
IAPSO meeting, Gothenburg: Thermohaline circulation and deep currents	2013
EGU General Assembly, Vienna: Ocean Circulation	2013
EGU General Assembly, Vienna: Ocean Circulation	2012
Ocean Sciences, Salt Lake City: Vertical Flow in the Ocean	2012
NOC: Physical Oceanography and Climate Seminar	2010–11
UW: Student Physical Oceanography educational Retreat, Friday Harbor	2003, 2009
UW: Graduate Climate Change Conference, Pack Forest	2008

Outreach/Other Activities: Hamburg Research Academy: Paving your Postdoc Career (2024), Scientific Career & Parenthood, panel member (2024), Royal Institution Christmas Lectures, guest on episode 2 (2020), RRS Sir David Attenborough launch, talk & marine robotics stand (3 days, 2019), Soapbox Science & Art presenter, Bournemouth Arts Festival (2018), Talked to 300 school kids from Springhill Primary (2018), Kid's version of ``heat wave'' paper (2016), Discover Oceanography on ``Oceanography from Space'' to U3A (2015), STEMnet ambassador, Hampshire (2014), Ocean and Earth Day demos for Science & Engineering week, NOC (2012, 2013, 2019)

Reviews for Journals: Annals of Glaciology, Deep Sea Research, Frontiers in Marine Science, Geophysical Research Letters, Journal of Atmospheric and Oceanic Technology, Journal of Climate, Journal of Geophysical Research - Oceans, Journal of Physical Oceanography, Marine Technology Society Journal, Nature, Nature Communications, Nature Geoscience, Ocean Science, Progress in Oceanography, Remote Sensing of the Environment, Reviews of Geophysics

Reviews for proposals: UK Natural Environment Research Council (NERC), US National Science Foundation (NSF), Royal Society International Fellowships, Norwegian Research Coun-

cil, National Defense Science & Engineering Graduate (NDSEG) fellowship, NASA Earth & Space Science Fellowships (NESSF), German research vessels (GPF), EuroFleets vessels

Training and Certification

Autonomous Vehicles: Sailbuoy pilot training, Offshore Sensing AS, 5 days (6/2019), Seaglider pilot training, Kongsberg, 5 days (9/2017)

Safety & First aid: Deutsches Rotes Kreuz First Aid, 8 hours (11/2022), IOSH Managing Safety in a Research Environment, 15 hrs (10/2018), First Aid at Work, 15 hrs (11/2019), ITC Certificate in Outdoor First Aid, SCQF Level 5, 16 hrs (2/2015)

Seagoing: Certificate in Proficiency in Designated Security Duties, 10 hrs (9/2020); STCW Personal Survival techniques certificate (updated 1/2017, 2010); ENG1 seafarer medical fitness certificate (1/2020, 3/2014); British Antarctic Survey medical (9/2014)

Diving: PADI Open Water (1996), Advanced diver No. 0009962148 (2000)

Teaching: ``PhD Supervision, MIN Faculty, UHH'', 9 hours (2024); ``Flipped Learning'', 4 hrs (2015); ``Revitalising your Virtual Learning Environment'', 2 hrs (2015); Postgraduate certificate in academic practice (PCAP) training, 24 hrs (2013); ``Engaging Students in Research & Inquiry'', 3 hrs (2013); ``Effective Teaching and Learning in the Large Classroom Setting'' by NAGT, 4 hrs (2012); ``Supervising a PhD student,'' 3 hrs (2010)

Other: ``Excelling at Academic Interviews,'' 7 hrs (2015); ``Springboard: Women's development programme,'' 32 hrs (2015); ``ThinkWrite: Quality Papers'', 7 hrs (2013); ``Building & Leading High Performing Teams'', 7 hrs (2013); ``Managing your Academic Career: for Women'', 7 hrs (2013); ``Climate Communications: Tools & Tips'' at AGU fall mtg, 7 hrs (2012)

Publications

[65] Auckland*, Abrahamsen, Meredith, Garabato, Spingys, **Frajka-Williams**, et al. "Wind forcing controls on Antarctic Bottom Water export from the Weddell Sea via bottom boundary layer processes". *J. Geophys. Res. Oceans* (2024). doi: https://doi.org/10.1029/2024JC021089.

[64] Clément, Merckelbach, and **Frajka-Williams**. "Turbulent vertical velocities in Labrador Sea convection". *Geophys. Res. Lett.* (2024). doi: https://doi.org/10.1029/2024GL110318.

[63] Duyck, Foukal, and **Frajka-Williams**. "Circulation of Baffin Bay and Hudson Bay waters on the Labrador Shelf and into the subpolar North Atlantic". *Ocean Sci. Disc.* (2024). doi: 10.5194/egusphere-2024-2541.

[62] Chafik, Holliday, Bacon, Baker, Desbruyères, **Frajka-Williams**, et al. "Observed mechanisms activating the recent subpolar North Atlantic Warming since 2016". *Philos. T. R. Soc. A* (2023). doi: 10.1098/rsta.2022.0183.

[61] Clément, **Frajka-Williams**, von Oppeln-Bronikowski, Goszczko, and de Young. "Cessation of Labrador Sea convection triggered by distinct fresh and warm (sub)mesoscale flows". *J. Phys. Oceanogr.* (2023). doi: 10.1175/jpo-d-22-0178.1.

[60] **Frajka-Williams**, Foukal, and Danabasoglu. "Should AMOC observations continue: how and why?" *Philos. T. R. Soc. A* (2023). doi: 10.1098/rsta.2022.0195.

[59] McCarthy, Burmeister, Cunningham, Düsterhus, **Frajka-Williams**, Graham, et al. "Climate change impacts on ocean circulation relevant to the UK and Ireland". *MCCIP Sci. Rev.* (2023). doi: 10.14465/2023.reu05.cir.

[58] Berx, Volkov, Baehr, Baringer, Brandt, Burmeister, et al. "Climate-relevant ocean transport measurements in the Atlantic and Arctic Oceans". *Oceanogr.* (2022). doi: 10.5670/oceanog.2021.supplement.02-04.

[57] Evans*, **Frajka-Williams**, and Naveira Garabato. "Dissipation of mesoscale eddies at a western boundary via a direct cascade". *Sci. Rep.* (2022). doi: 10.1038/s41598-022-05002-7.

[56] Jackson, Biastoch, Buckley, Desbruyeres, **Frajka-Williams**, Moat, et al. "The evolution of the North Atlantic meridional overturning circulation since 1980". *Nat. Rev. Earth Environ.* (2022). doi: 10.1038/s43017-022-00263-2.

[55] Naveira Garabato, Yu, Callies, Barkan, Polzin, **Frajka-Williams**, et al. "Kinetic energy transfers between mesoscale and submesoscale motions in the open ocean's upper layers". *J. Phys. Oceanogr.* (2022). doi: 10.1175/JPO-D-21-0099.1.

[54] Danabasoglu, Castruccio, Small, Tomas, **Frajka-Williams**, and Lankhorst. "Revisiting AMOC Transport Estimates from Observations and Models". *Geophys. Res. Lett.* (2021). doi: 10.1029/2021GL093045.

[53] Sanchez-Franks*, **Frajka-Williams**, Moat, and Smeed. "A dynamically based method for estimating the Atlantic overturning circulation at 26°N from satellite altimetry". *Ocean Sci.* (2021). doi: 10.5194/os-17-1321-2021.

[52] Spingys, Naveira Garabato, Legg, Polzin, Abrahamsen, Buckingham, et al. "Mixing and Transformation in a Deep Western Boundary Current: A Case Study". *J. Phys. Oceanogr.* (2021). doi: 10.1175/JPO-D-20-0132.1.

[51] Evans*, **Frajka-Williams**, Naveira Garabato, Polzin, and Forryan. "Mesoscale eddy dissipation by a "zoo" of submesoscale processes at a western boundary". *J. Geophys. Res. Oceans* (2020). doi: 10.1029/2020JC016246.

[50] Fernandez-Castro, Evans, **Frajka-Williams**, Vic, and Naveira Garabato. "Breaking of internal waves and turbulent dissipation in an anticyclonic mode water eddy". *J. Phys. Oceanogr.* (2020). doi: 10.1175/JPO-D-19-0168.1.

[49] Lobelle*, Beaulieu, Livina, Sevellec, and **Frajka-Williams**. "Detectability of an AMOC decline in current and projected climate changes". *Geophys. Res. Lett.* (2020). doi: 10.1029/2020GL089974.

[48] Moat, Smeed, **Frajka-Williams**, Desbruyeres, Beaulieu, Johns, et al. "Pending recovery in the strength of the MOC at 26°N". *Ocean Sci.* (2020). doi: 10.5194/os-16-863-2020.

[47] Volkov, Meinen, Schmid, Moat, Lankhorst, Dong, et al. "Atlantic meridional overturning circulation and associated heat transport". *State of the Climate in 2019*. Ed. by Blunden and Arndt. 2020.

[46] **Frajka-Williams**, Ansorge, Baehr, Bryden, Chidichimo, Cunningham, et al. "OceanObs19: Atlantic meridional overturning circulation: Observed transports and variability". *Front. Mar. Sci.* (2019). doi: 10.3389/fmars.2019.00260.

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[44] Hirschi, **Frajka-Williams**, Blaker, Sinha, Coward, Hyder, et al. "Loop Current variability as a trigger of coherent Gulf Stream transport anomalies". *J. Phys. Oceanogr.* (2019). doi: 10.1175/JPO-D-18-0236.1.

[43] Meinen, Johns, Moat, Smith, Johns, Rayner, et al. "Structure and variability of the Antilles Current at 26.5°N". *J. Geophys. Res. Oceans* (2019). doi: 10.1029/2018JC014836.

[42] Naveira Garabato, Dotto, Hooley, Bacon, Tsamados, Ridout, et al. "Phased response of the subpolar Southern Ocean to changes in circumpolar winds". *Geophys. Res. Lett.* (2019). doi: 10.1029/2019GL082850.

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[40] Testor, de Young, Rudnick, Glenn, Hayes, Lee, et al. "OceanObs19: OceanGliders: a component of the integrated GOOS". *Front. Mar. Sci.* (2019). doi: 10.3389/fmars.2019.00422.

[39] Worthington*, **Frajka-Williams**, and McCarthy. "Estimating the deep overturning transport variability at 26°N using bottom pressure recorders". *J. Geophys. Res. Oceans* (2019). doi: 10.1029/2018JC014221.

[38] Calafat, Wahl, Lindsten, Williams, and **Frajka-Williams**. "Coherent modulation of the sea-level annual cycle in the United States by Atlantic Rossby waves". *Nat. Comm.* (2018). doi: 10.1038/s41467-018-04898-y.

[37] Dotto, Naveira Garabato, Bacon, Tsamados, Holland, Hooley, et al. "Variability of the Ross Gyre, Southern Ocean: drivers and responses revealed by satellite altimetry". *Geophys. Res. Lett.* (2018). doi: 10.1029/2018GL078607.

[36] Evans*, Lucas, Hemsley*, **Frajka-Williams**, Naveira Garabato, Martin, et al. "Annual cycle of turbulent dissipation estimated from Seagliders". *Geophys. Res. Lett.* (2018). doi: 10.1029/2018GL079966.

[35] Schulze Chretian* and **Frajka-Williams**. "Wind-driven transport of fresh shelf water into the upper 30 m of the Labrador Sea". *Ocean Sci.* (2018). doi: 10.5194/os-14-1247-2018.

[34] Sinha, Smeed, McCarthy, Moat, Josey, Hirschi, et al. "The accuracy of estimates of the overturning circulation from basin wide mooring arrays". *Prog. Oceanogr.* (2018). doi: 10.1016/j.pocean.2017.12.001.

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[31] **Frajka-Williams**, Beaulieu, and Duchez. "Emerging negative Atlantic Multidecadal Oscillation in spite of warm subtropics". *Sci. Rep.* (2017). doi: 10.1038/s41598-017-11046-x.

[30] Clément*, **Frajka-Williams**, Sheen, Brearley, and Naveira Garabato. "Generation of internal waves by eddies impinging on the western boundary of the North Atlantic". *J. Phys. Oceanogr.* (2016). doi: 10.1175/JPO-D-14-0241.1.

[29] Duchez, **Frajka-Williams**, Josey, Evans, Grist, Marsh, et al. "Drivers of exceptionally cold North Atlantic Ocean temperatures and their link to the 2015 European heat wave". *Environ. Res. Lett.* (2016). doi: 10.1088/1748-9326/11/7/074004.

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[27] **Frajka-Williams**, Meinen, Johns, Smeed, Duchez, Lawrence*, et al. "Compensation between meridional flow components of the Atlantic MOC at 26°N". *Ocean Sci.* (2016). doi: 10.5194/os-12-481-2016.

[26] **Frajka-Williams**. "Estimating the Atlantic overturning at 26°N using satellite altimetry and cable measurements". *Geophys. Res. Lett.* (2015). doi: 10.1002/2015GL063220.

[25] Hemsley*, Smyth, Martin, **Frajka-Williams**, Damerell, Thompson, et al. "Estimating oceanic primary production using vertical irradiance and chlorophyll profiles from ocean gliders in the North Atlantic". *Environ. Sci. Technol.* (2015). doi: 10.1021/acs.est.5b00608.

[24] McCarthy, Smeed, Johns, **Frajka-Williams**, Moat, Rayner, et al. "Measuring the Atlantic meridional overturning circulation at 26°N". *Prog. Oceanogr.* (2015). doi: 10.1016/j.pocean.2014.10.006.

[23] Baringer, McCarthy, Willis, Lankhorst, Smeed, Send, et al. "Global Oceans: Meridional overturning circulation observations in the North Atlantic Ocean". *State of the Climate in 2013*. Ed. by Blunden and Arndt. B. Am. Meteorol. Soc., 2014.

[22] Carton, Cunningham, **Frajka-Williams**, Kwon, Marshall, and Msadek. "The Atlantic overturning circulation: More evidence of variability and links to climate". *B. Am. Meteorol. Soc.* (2014). doi: 10.1175/BAMS-D-13-00234.1.

[21] Clément*, **Frajka-Williams**, Szuts, and Cunningham. "Vertical structure of eddies and Rossby waves and their effect on the Atlantic MOC at 26.5°N". *J. Geophys. Res. Oceans* (2014). doi: 10.1002/2014JC010146.

[20] Duchez, Cunningham, Hirschi, Blaker, Bryden, Atkinson, et al. "A new index for the Atlantic meridional overturning circulation". *J. Clim.* (2014). doi: 10.1175/JCLI-D-13-00052.1.

[19] Duchez, **Frajka-Williams**, Castro*, Hirschi, and Coward. "Seasonal to interannual variability in density around the Canary Islands and their influence on the AMOC at 26°N". *J. Geophys. Res. Oceans* (2014). doi: 10.1002/2013JC009416.

[18] Elipot, **Frajka-Williams**, Hughes, and Willis. "The observed AMOC, its meridional coherence and ocean bottom pressure". *J. Phys. Oceanogr.* (2014). doi: 10.1175/JPO-D-13-026.1.

[17] **Frajka-Williams**. "Sustaining observations of the unsteady ocean circulation". *Philos. T. R. Soc. A* (2014). doi: 10.1098/rsta.2013.0335.

[16] **Frajka-Williams**, Rhines, and Eriksen. "Horizontal stratification during deep convection in the Labrador Sea". *J. Phys. Oceanogr.* (2014). doi: 10.1175/JPO-D-13-069.1.

[15] Smeed, McCarthy, Cunningham, **Frajka-Williams**, Rayner, Johns, et al. "Observed decline of the Atlantic meridional overturning circulation 2004 to 2012". *Ocean Sci.* (2014). doi: 10.5194/os-10-29-2014.

[14] Baringer, Johns, McCarthy, Willis, Garzoli, Lankhorst, et al. "Global Oceans: Meridional overturning circulation and heat transport observations in the Atlantic Ocean". *State of the Climate in 2012*. Ed. by Blunden and Arndt. B. Am. Meteorol. Soc., 2013.

[13] Cunningham, Roberts, **Frajka-Williams**, Johns, Hobbs, Palmer, et al. "Atlantic MOC slowdown cooled the subtropical ocean". *Geophys. Res. Lett.* (2013). doi: 10.1002/2013GL058464.

[12] **Frajka-Williams**, Johns, Meinen, Beal, and Cunningham. "Eddy impacts on the Florida Current". *Geophys. Res. Lett.* (2013). doi: 10.1002/grl.50115.

[11] Mielke, **Frajka-Williams**, and Baehr. "Observed and simulated variability of the AMOC at 26°N and 41°N". *Geophys. Res. Lett.* (2013). doi: 10.1002/grl.50233.

[10] Roberts, Waters, Peterson, Palmer, McCarthy, **Frajka-Williams**, et al. "Atmosphere drives recent interannual variability of the Atlantic meridional overturning circulation at 26.5°N". *Geophys. Res. Lett.* (2013). doi: 10.1002/grl.50930.

[9] Baringer, Cunningham, Meinen, Garzoli, Willis, Lankhorst, et al. "Global Oceans: Meridional overturning circulation observations in the subtropical North Atlantic". *State of the Climate in 2011*. Ed. by Blunden and Arndt. B. Am. Meteorol. Soc., 2012.

[8] McCarthy, **Frajka-Williams**, Johns, Baringer, Meinen, Bryden, et al. "Observed interannual variability of the Atlantic MOC at 26.5°N". *Geophys. Res. Lett.* (2012). doi: 10.1029/2012GL052933.

[7] Baringer, Cunningham, Meinen, Garzoli, Willis, Lankhorst, et al. "Meridional Overturning Circulation Observations in the Subtropical North Atlantic". *State of the Climate in 2010*. Ed. by Blunden and Arndt. B. Am. Meteorol. Soc., 2011. doi: 10.1175/1520-0477-92.6.S1.

[6] **Frajka-Williams**, Cunningham, Bryden, and King. "Variability of Antarctic Bottom Water at 24.5°N in the Atlantic". *J. Geophys. Res. Oceans* (2011). doi: 10.1029/2011JC007168.

[5] **Frajka-Williams**, Eriksen, Rhines, and Harcourt. "Determining vertical water velocities from Seaglider". *J. Atmos. Oceanic Tech.* (2011). doi: 10.1175/2011JTECHO830.1.

[4] Rayner, Hirschi, Kanzow, Johns, Wright, **Frajka-Williams**, et al. "Monitoring the Atlantic meridional overturning circulation". *Deep-Sea Res. Pt. II* (2011). doi: 10.1016/j.dsr2.2010.10.056.

[3] **Frajka-Williams** and Rhines. "Physical controls and interannual variability of the Labrador Sea spring phytoplankton bloom in distinct regions". *Deep-Sea Res. Pt. I* (2010). doi: 10.1016/j.dsr.2010.01.003.

[2] **Frajka-Williams**, Rhines, and Eriksen. "Physical controls and mesoscale variability in the Labrador Sea spring phytoplankton bloom observed by Seaglider". *Deep-Sea Res. Pt. I* (2009). doi: 10.1016/j.dsr.2009.07.008.

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BOOK CHAPTERS AND REPORTS (selected)

[10] **Frajka-Williams**, Brearley, Nash, and Whalen. "New technological frontiers in ocean mixing". *Ocean Mixing: Drivers, Mechanisms and Impacts*. Elsevier, 2022. doi: 10.1016/B978-0-12-821512-8.00021-9.

[9] Hendry, Annett, Bhatia, Damerell, Fielding, Firing, et al. "Equity at sea: Gender and inclusivity in UK sea-going science". *Ocean Challenge* (2020). url: https://nora.nerc.ac.uk/id/eprint/530066/.

[8] **Frajka-Williams**. "Topographic eddies". *Reference Module in Earth Systems and Environmental Sciences*. Elsevier, 2018. doi: 10.1016/B978-0-12-409548-9.10852-8.

[7] **Frajka-Williams**. *RV Walton Smith Cruise WS17305, 31 Oct - 10 Nov 2017, Miami to Miami, USA. MerMEED microstructure cruise report.* Tech. rep. National Oceanography Centre, Southampton, 2018. url: https://eprints.soton.ac.uk/417559/.

[6] **Frajka-Williams** and Templeton. *Boaty McBoatface M44 in Orkney Passage*. https://vimeo.com/eleanorfrajka/boaty-mcboatface-m44-dynopo. Animation. Viewed 45,000 times. Vimeo, 2017.

[5] **Frajka-Williams**. *RV Walton Smith Cruise WS16336, 01 - 07 Dec 2016, Miami to Miami, USA. MerMEED microstructure cruise report.* Tech. rep. National Oceanography Centre, Southampton, 2017. url: https://eprints.soton.ac.uk/410888/.

[4] Duchez, **Frajka-Williams**, Josey, Evans, Grist, Marsh, et al. "Cold ocean = hot summer?" *Environmental Science Journal for Teens* (2016). url: http://www.sciencejournalforkids.org/articles/cold-ocean-hot-summer.

[3] **Frajka-Williams**. "Women in Oceanography: A decade later". *Oceanogr.* (2014). url: https://tos.org/oceanography/issue/volume-27-issue-04-supplement.

[2] Johns and **Frajka-Williams**. *RV Knorr Cruise KN200-4, 13 Apr–3 May 2011. RAPID Mooring Cruise.* Tech. rep. National Oceanography Centre, Southampton, 2011. url: https://nora.nerc.ac.uk/id/eprint/308915/1/NOC_CR_07.pdf.

[1] Martini, **Frajka-Williams**, and Mouw. "Conference Report | The Pattullo Conference: Building community through mentoring". *Oceanogr.* (2009). doi: 10.5670/oceanog.2009.26.

Selected seminars & Talks (as presenter)

2024: ISMS meeting, Valencia, Spain (**keynote**)
Ocean Sciences meeting, New Orleans, LA (talk)
EUMETSAT Winter Talk, Darmstadt (seminar - online)

2023: AMOC workshop, Hamburg (talk)
Universität Bremen, DE (seminar)
GEOMAR, Kiel, DE (seminar)
Bottom pressure workshop, Rhode Island (talk - online)
ASOF meeting, Canary Islands (talk - online)

2022: AMOC meeting, Royal Society, London, UK (**invited talk**)
AANChOR AAORIA Workshop, Washington D.C. (talk)
UG2 Glider workshop, Seattle (poster)

2021: Leeds, UK (seminar)
NOC Science & Technology Advisory Committee, UK (talk)
FDSE summer school, Cambridge, UK (lecture)
Nordic Overflows workshop, virtual (talk)
CANAIMOC meeting, virtual (talk)
EGU General Assembly, virtual (pico)

2020: OceanSITES, virtual (**invited panelist**)
NOC Board, UK (talk)
IOCAG, Canary Islands, ES (seminar)
Oxford University, UK (seminar)
UK MetOffice, UK (talk)
Imperial College London, UK (seminar)

2019: Marine Autonomy & Technology Showcase, Southampton, UK (talk)
GFDL, Princeton, New Jersey (seminar)
Newcastle University, Newcastle, UK (seminar)
RRS Sir David Attenborough launch, Birkenhead, UK (talk)
OceanObs19, Honolulu, Hawaii (poster)
AMOC Metrics, Honolulu, Hawaii (**invited talk**)
NERC Science Committee, Swindon, UK (talk)
NOC Association, London, UK (talk)
CLASS annual science meeting, Plymouth, UK (talk)
EGU General Assembly, Vienna, Austria (poster)
Royal Society West Indies meeting, Chicheley, UK (poster)
RAPID International Review, London, UK (talk)

2018: Marine Autonomy & Technology Showcase, Southampton, UK (talk)
University College London, London, UK (seminar)
Challenger Society for Marine Science, Newcastle, UK (talk)
US AMOC/UK RAPID International Meeting, Miami, FL (**invited talk**)
University of East Anglia, Norwich, UK (seminar)
Ocean Sciences meeting, Portland, OR (talk)
Cambridge University, Cambridge, UK (seminar)

2017: Marine Autonomy & Technology Showcase, Southampton, UK (talk)
RAPID/OSNAP/ACSIS meeting, Oxford, UK (poster)
Oceans and Climate public lecture, The Royal Society, London (**keynote**)
IAPSO meeting, Cape Town, South Africa (talk)
Liege Colloquium on Turbulence, Liege, Belgium (poster)
NOC Friday Seminar, Southampton, UK (seminar)

2016: EGO Glider meeting, Southampton, UK (poster)
NOAA/AOML, Miami, FL (seminar)
Woods Hole Oceanographic Institute, Woods Hole, MA (seminars)
NASA JPL, Pasadena, CA (seminar)
University of Washington, Seattle, WA (seminar)

2015: RAPID International Science Meeting, Bristol, UK (talk)
IUGG General Assembly, Prague, Czech Republic (talk & **panel member**)
CLIVAR Climate Process Team meeting, La Jolla, CA
University of Washington, Seattle, WA (seminar)

2014: AGU fall meeting, San Francisco, CA (talk)
Ocean Sciences, Honolulu, HI (talk)
National Oceanography Centre, Liverpool, UK (seminar)
Oxford University, Oxford, UK (seminar)

2013: IAPSO meeting, Gothenberg, Sweden (talk)
Challenger Society: Prospectus 2013, Royal Society, London (**invited talk**)
EGU General Assembly, Vienna, Austria (talk)
University of Washington, Seattle, WA (seminar)
University of East Anglia, Norwich, UK (seminar)

2012: AGU Fall Meeting, San Francisco, CA (poster)
Bangor University, Bangor, UK (seminar)
THOR meeting in Hamburg, DE (talk)
British Antarctic Survey, Cambridge, UK (seminar)
Time series conference in Brest, France (**invited talk**)
USAMOC meeting, Boulder, CO (poster)
EGU General Assembly, Vienna, Austria (talk)
AGU Ocean Sciences, Salt Lake City, UT (poster)

2011: WCRP meeting, Denver, CO (poster)
RAPID International Science Meeting, Bristol, UK (talk)
ZMAW/Klimacampus, Max-Planck-Institut fur Meteorologie, Hamburg (seminar)
IUGG General Assembly, Melbourne, Australia (talk)
IUGG General Assembly, Melbourne, Australia (poster)

2010: Challenger Society for Marine Science, Southampton, UK (poster)
AGU Ocean Sciences, Portland, OR (talk)
Imperial College London, London, UK (seminar)
University of Liverpool, Liverpool, UK (seminar)
POETS NOC, Southampton, UK (seminar)
NOC PO Seminar, Southampton, UK (seminar)

2009: ESSAS 2009 Annual Science meeting, Seattle, WA (**invited talk**)
PO and Climate, Southampton, UK (seminar)
University of Washington, Seattle, WA (seminar)
Woods Hole Oceanographic Institution, Woods Hole, MA (seminar)
Physical Oceanography Dissertation Sympsium. Honolulu, HI (talk)

2008: Ocean Sciences meeting, Orlando, FL (**Outstanding Student Talk award**)
MPOWIR Pattullo Conference, Charleston, SC (talk)
2006: Ocean Sciences meeting, Honolulu, HI (poster)
2005: EGU General Assembly, Vienna, Austria (poster)
2004: American Physical Society, Seattle, WA (talk)
SCOR IAPSO conference on Mixing, Victoria, Canada (poster)
AGU Ocean Sciences, Portland, OR (poster)
2003: Hawaiian Ocean Mixing Experiment workshop, Mt. Hood, OR (talk)
2002: EGU General Assembly, Nice, France (poster)