Jan Jaap Meijer

Curriculum Vitae

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I am an enthusiastic and motivated observational oceanographer who is deeply connected to the ocean not only via my degrees in Atmospheric and Oceanic sciences, but also via my personal interests in surfing and sailing. During my degree I successfully combined my studies with internships and part time jobs, journeys and other commitments showing myself to be self-motivated, organised and able to work productively with others. I have a clear, open mind and use my communication and numeracy skills to solve societal and environmental problems for a sustainable future.

Education

2017 – 2022 **PhD in Quantitative Marine Science**, University of Tasmania, Hobart, Australia.
Thesis: Meander dynamics in the Antarctic Circumpolar Current.
Supervisors: A/Prof. Dr. H.E. Phillips, Prof. Dr. N.L. Bindoff, Dr. S.R. Rintoul and Dr. A. Foppert

2014 **Master of Science in Meteorology, Physical Oceanography and Climate**, Utrecht University, the Netherlands.
Thesis: Modelling the formation of coral cays on platform reefs
Supervisors: Prof. dr. H.E. de Swart, dr. M. van der Vegt and dr. ir. A. van Dongeren

2012 **Visiting student at the department of Physical Oceanography**, Royal Netherlands Institute for Sea Research (NIOZ), Texel, the Netherlands.

2012 **Visiting student at the department of Coastal Engineering**, Delft University of Technology, the Netherlands.

2011 **Bachelor of Engineering in Aeronautical Engineering**, Inholland University, Delft, the Netherlands.

Experience

Research experience

2021 – Present **Research Assistant**, Institute for Marine and Antarctic Studies (IMAS), Hobart, Australia, `https://www.imas.utas.edu.au`.
Developing a toolbox for the quality control and data analysis of EM-APEX floats (autonomous oceanographic instrument for measurements of temperature, salinity and velocity in the water column). This toolbox is made available on GitHub, `https://github.com/janjaapmeijer/emapex`

2019 **Guest investigator**, Woods Hole Oceanographic Institute (WHOI), Woods Hole, MA, USA, https://www.whoi.edu.
Research collaboration with Kurt Polzin (WHOI), Kathleen Donohue, Karen Tracey, Randolph Watts (University of Rhode Island) and supervisory team on "How does topography brake the Antarctic Circumpolar Current?"

2015 – 2016 **Research Associate**, Stockholm Environment Institute (SEI), Stockholm, Sweden, http://www.sei-international.org.
A case study in which a set of coastal risk tools developed in the RISC-KIT project are applied, to assess the risk to the Kristianstad Municipality coastline in Sweden on flooding and erosion during extreme storm events.

2013 – 2014 **Graduate intern at the department of Sediment transport and Morphology**, Deltares, Delft, the Netherlands, http://www.deltares.nl.
A research study addressing the formation of coral cays on platform reefs.

Sea-going experience

2018 **Principal student investigator**, RV Investigator, Polar Front meander downstream of the South East Indian Ridge, 16 October – 16 November 2018.
Assisting in the planning of CTD locations along 11 transects, operating CTD casts/ sampling Niskin bottles and analysing the incoming data. Deploying EM-APEX floats and Langrangian surface drifters.

2015 **Investigator**, RV Pelagia, Rainbow thermal field on the Mid-Atlantic Ridge near the Azores, 6 - 14 April 2015.
Assisting in recovering deep-sea moorings, controlling CTD casts during "yo-yo" and "tow-yow" surveys and a first attempt in analysing the recovered mooring datasets.

2008 – 2015 **Seaman at the deck department**, Rederij Halfland - *shipping company*, Rotterdam, the Netherlands, http://www.halfland.nl.
Assisting steersman and captain on two and three-masted sailing ships.

Teaching experience

2017 **Teacher in Physics**, Lyceo, Leiden, the Netherlands, http://www.lyceo.nl.
Giving instruction and additional attention to secondary school students.

2015 **Teacher in Physics and Mathematics**, Lyceo/ Inwijs, Leiden, the Netherlands, http://www.lyceo.nl / http://www.inwijs.nl.
Giving instruction and additional attention to secondary school students.

Engineering experience

2011 **Undergraduate intern at the department of Research and Development**, CTC GmbH *subsidiary of* Airbus Deutschland GmbH, Stade, Germany, http://www.ctc-gmbh.com.
Developing processes for "Out of Autoclave" rework on the Airbus A350-1000 Fuselage, made primarily of carbon fibre reinforced plastic.

2007 – 2008 **Intern at the department of Design/ Analysis and Project Management**, FACC AG, Ried im Innkreis, Austria, http://www.facc.at.
Helping in the design and analysis of composite components for the Boeing 787 Spoiler project.

Summer/ winter schools/ educational programs

2022 **Ocean Impact Ideation Program**, Ocean Impact Organisation, Australia.

2020 **Virtual winter school in Atmosphere and Ocean Dynamics**, ARC Centre of Excellence for Climate Extremes, Australia.

2018 **Winter school in Climate Extremes and High Impact Weather**, Australian National University, Canberra, Australia.

2011 **Summer course in Multidisciplinary sea-going oceanography**, Royal Netherlands Institute for Sea Research (NIOZ), Texel, the Netherlands.

2011 **Summer school in Physics of the Climate System**, Utrecht University, Utrecht, the Netherlands.

Publications

2022 (in prep.) **Jan Jaap Meijer**, Helen E. Phillips, Nathaniel L. Bindoff, Stephen R. Rintoul, and Annie Foppert. Observed dynamics of a polar front standing meander. *Journal of Physical Oceanography or Journal of Geophysical Research: Oceans*, 2022 (in prep.).

2022 (in prep.) **Jan Jaap Meijer**, Helen E. Phillips, Nathaniel L. Bindoff, Stephen R. Rintoul, and Annie Foppert. Deep cyclogenesis beneath a standing meander in the subantarctic front. *Journal of Physical Oceanography or Journal of Geophysical Research: Oceans*, 2022 (in prep.).

2022 **Jan Jaap Meijer**, Helen E. Phillips, Nathaniel L. Bindoff, Stephen R. Rintoul, and Annie Foppert. Dynamics of a standing meander of the subantarctic front diagnosed from satellite altimetry and along-stream anomalies of temperature and salinity. *Journal of Physical Oceanography*, 2022.

2017 Karina Barquet, Sarah K. Dickin, **Jan Jaap Meijer**, and Ali Dastgheib. Testing RISC-KIT's integrated approach for assessing Disaster Risk Reduction measures on the coast of Kristianstad, Sweden. *Coastal Engineering*, August 2017.

Conference presentations

2022 **Deep cyclogenesis beneath a standing meander in the Subantarctic Front**, *AMOS Annual Conference*, Adelaide, Australia, November 28-December 1, 2022.

2022 **Meander dynamics in the Antarctic Circumpolar Current**, *FilaChange*, Hobart, Australia, August 29-September 2, 2022.

2022 **Dynamics of a standing meander of the Subantarctic Front diagnosed from satellite altimetry and along-stream anomalies of temperature and salinity**, *Ocean Sciences Meeting*, Honolulu, HI, USA (virtually), February 24-March 4, 2022.

2022 **Dynamics of a standing meander of the Subantarctic Front diagnosed from satellite altimetry and along-stream anomalies of temperature and salinity**, *International Conference on Southern Hemisphere Meteorology and Oceanography (ICSHMO)*, Christchurch, New Zealand (virtually), February 8-12, 2022.

2019 **Sustainability in ocean observations**, *OceanObs*, Honolulu, HI, USA, September 16-20, 2019.

2019 **Three-dimensional structure of a standing meander in the Antarctic Circumpolar Current**, *EGU General Assembly*, Vienna, Austria, April 7-12, 2019.

2018 **Are standing meanders braking the Antarctic Circumpolar Current?**, *Annual Graduate Research Conference organised by the* University of Tasmania, Hobart, Australia, September 07, 2018.

2017 **Integrated approaches to coastal risk - case study: Kristianstad Municipality, Sweden.**, *Final Conference organised by the RISC-KIT Consortium and hosted at* Deltares, Delft, the Netherlands, April 5-7, 2017.

2016 **From storm hazards at the coast, to impacts on the hinterland - RISC-KIT project**, *Climate Change Adaptation in the Coastal Zone conference organised by* Föreningen Vatten *(Swedish Association for Water) in cooperation with the* Lund University *and the* World Maritime University, Malmö, Sweden, April 5-6, 2016.

Grants

2022 **Write-up Scholarship**, CSIRO-UTAS PhD Program in Quantitative Marine Science, Australia, AUD$8,000.

2019 **Travel support for OceanObs'19**, Centre of Excellence for Climate Extremes, Australia, AUD$3,000.

2018 **Travel support for research visit to WHOI/ University of Rhode Island**, ARC Discovery Grant (DP170102162-Bindoff), Australia, AUD$4,000.

2018 **Travel support for research visit to WHOI**, Centre of Excellence for Climate Extremes, Australia, AUD$1,000.

2018 **Quantitative Marine Science postgraduate conference support**, CSIRO *and* University of Tasmania, Hobart, Australia, AUD$2,500.

2017 **Quantitative Marine Science Scholarship**, CSIRO *and* University of Tasmania, Hobart, Australia, top-up of AUD$5,000pa for three years with a possible six month extension.

2017 **Tasmania Graduate Research Scholarship**, University of Tasmania, Hobart, Australia, living allowance of AUD$26,682pa for three years with a possible six month extension.

Languages

Dutch	Native language	
English	Fluent	*speaking and writing*
German	Intermediate	*speaking and writing*
French	Basic knowledge	*speaking and writing*
Portuguese	Basic knowledge	*speaking*
Spanish	Basic knowledge	*speaking*

Skills/ Abilities

Communication

Reading	Proficient in reading technical manuals and scientific papers
Writing	Proficient in writing technical manuals and scientific papers
Presenting	Confident in public speaking and work floor discussions
Outreach	STEM_next at Taroona High School (2019), Roving Scientist on Beaker Street at the Tasmanian Museum and Art Gallery (2019), IN1810v05 Voyage blog post (2018)

Leadership/ teamwork

2019 – 2020	**Chair of the Early Career Researcher committee**, Centre of Excellence for Climate Extremes, Australia, `https://climateextremes.org.au`.
2018 – 2020	**Member of the Early Career Researcher committee**, Centre of Excellence for Climate Extremes, Australia, `https://climateextremes.org.au`.
2019	**Co-organiser of CSIRO-IMAS ECR-day**, CSIRO *and* IMAS, Hobart, Australia.
2018	**Student representative for the Earth Systems Science Compute User Group**, University of Tasmania, Hobart, Australia.

Information technology

Operating systems	Linux (preferred), ability to work cross-platform
Programming languages	Python, shell scripting, Matlab, Fortran, HTML/CSS
Productivity software	LibreOffice, LaTeX, Microsoft Office suite
High-performance/ cloud computing	NCI High Performance Computing system, Deltares Cluster Computing System, SEI work station
Open-source tools and documentation	Conda, Git, Markdown, readthedocs.io
Engineering design packages	CATIA, Patran/ Nastran, Matlab/ Simulink
Modelling software	XBeach, Delft3D, LISFLOOD
Geographic information system	QGIS

Licences/ Certificates

Date of expiry: 3 March 2056	International certificate for operators of pleasure craft	*Inland/ Coastal waters*
	Long Range Operators Certificate of Proficiency	
26 March 2020	Survival at Sea certificate	
3 March 2017	Seafarer medical certificate	*Worldwide*
30 January 2019	Car and motorcycle driving license	*category A and B*

References

Available upon request