# 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 degree Meteorology, Physical Oceanography and Climate, 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 – Present **PhD candidate in Quantitative Marine Science**, UNIVERSITY OF TASMANIA, Hobart, Australia.

Thesis: An observational study of the role of standing meanders in slowing the Antarctic Circumpolar Current and transporting heat to Antarctica.

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

- 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 UNI-VERSITY, 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.

Making MATLAB scripts for quality controlling EM-APEX floats available on GitHub, applying these to the float data of the IN1810v05 voyage and formatting in easy-accessible NetCDF format.

- 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 does see marriage controlling CTD costs during "ye ye" and
  - 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

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

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**

- 2021 (in review) **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*, 2021 (in review).
  - 2022 (in prep.) Jan Jaap Meijer, Helen E. Phillips, Nathaniel L. Bindoff, Stephen R. Rintoul, and Annie Foppert. Dynamics of a subantarctic front standing meander in a high-resolution ocean model. Journal of Physical Oceanography, 2022 (in prep.).
    - 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 (accepted) 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, February 8-12, 2022.
  - 2019 **Sustainability in ocean observations**, *OceanObs*, Honolulu, HI, USA, September 16-20, 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

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
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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 NCI High Performance Computing system, Deltares Cluster Computing System, SEI

computing work station

Open-source tools and Conda, Git, Markdown, readthedocs.io

documentation

Engineering design CATIA, Patran/ Nastran, Matlab/ Simulink

packages

Modelling software XBeach, Delft3D, LISFLOOD

Geographic information QGIS

system

Licences/ Certificates

Date of expiry: International certificate for operators of pleasure craft Inland/ Coastal waters

3 March 2056

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