

TILL J.W. WAGNER

Curriculum Vitae

Physics and Physical Oceanography,
University of North Carolina at Wilmington,
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Research Interests:

ice–ocean–atmosphere interactions; glacier, iceberg, and sea ice mechanics; nonlinear mechanics, elasticity and elastocapillarity

Research Methods:

formulation and analysis of mathematical models of physical processes using analytical and numerical methods; polar field experiments and analysis of observational data; desktop laboratory experiments

Preparation and Appointments

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| 2018 - | Assistant Professor
Department of Physics and Physical Oceanography, <i>University of North Carolina Wilmington</i> |
| 2013 - 2017 | Postdoctoral Scholar
Scripps Institution of Oceanography, <i>University of California San Diego</i>
Advisors: Ian Eisenman, Fiamma Straneo |
| 2009 - 2013 | Doctor of Philosophy (Ph.D.) in Mathematics
DAMTP, <i>University of Cambridge</i> and <i>British Antarctic Survey</i>
Advisors: Dominic Vella, Ted Maksym, Peter Wadhams |
| 2008 - 2009 | Master of Advanced Studies (MASt) in Mathematics (Part III)
DAMTP, <i>University of Cambridge</i> (Gonville & Caius College) |
| 2004 - 2008 | Master of Science (M.Sci.) in Physics & Philosophy
Departments of Physics and Philosophy, <i>University of Bristol</i> |

Publications

a complete and updated list can be found here on: [Google Scholar](#)

Teaching Experience

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| 2018 - present | Elementary College Physics, Department of Physics and Physical Oceanography, UNCW |
| Spring 2018 | Fluid Mechanics, Department of Physics and Physical Oceanography, UNCW |
| 2016 - present | Developing course materials and training high school teachers to incorporate <i>Climate Science</i> in the Next Generation Science Standards, State of California |
| 2014 | Guest lectures for the graduate course " <i>Numerical Modeling of the Climate System</i> ", Scripps Institution of Oceanography, USCD |
| 2012 - 2013 | Supervisor for " <i>Mathematics for Natural Sciences</i> ", University of Cambridge , Natural Sciences Tripos, Part I |

Fellowships, Awards, and External Funding

- 2018 - 2020 **NSF Polar - Antarctic Ocean and Atmospheric Science Grant** (\$289,502)
"Collaborative Research: Modeling Giant Icebergs and Their Decay"
Role: PI
Collaboration with Princeton University, UCSD (\$578,170 total)
- 2017 - 2019 **NSF Polar - Antarctic Ocean and Atmospheric Science Grant** (\$399,570)
"The influence of sea ice motion on Antarctic sea ice expansion"
Role: Co-PI (PI: Eisenman)
- 2016 - 2017 **Frontiers of Innovation Scholars Program (FISP)** (\$25,000)
Project Fellowship for Postdoctoral Scholars
"Uncovering the physical mechanisms driving the variability of Arctic sea ice"
Advisors: Ian Eisenman, Pietro Cicotti
- 2012 **Cambridge Philosophical Society**
Research Fellowship
'...for the continuation of an exceptionally promising piece of research beyond usual standard of Ph.D.'
- OCCAM, Mathematical Institute, University of Oxford**
KAUST Visiting Student Fellowship
- 2011 **Woods Hole Oceanographic Institution**
Guest Program Fellowship
- NASA, Goddard Space Flight Centre, Cryospheric Science Branch**
Visiting Student
- 2008 - 2009 **Cambridge European Trust**, University of Cambridge
Scholar of the Cambridge European Trust (to fund Part III)

Scientific Service and Memberships

Committee Member of the American Meteorological Society Polar Meteorology and Oceanography Committee

Reviewer for *Nature Climate Change, Journal of Climate, Geophysical Research Letters, The Cryosphere, Journal of Geophysical Research - Atmosphere, Journal of Geophysical Research - Oceans, Arctic, npj Climate and Atmospheric Science, Polar Research, NSF Polar - Antarctic Oceans & Atmospheric Science, NSF Polar - Arctic Natural Sciences, NSF - Ocean Sciences Proposals, APECS IPCC*

Member of *the American Geophysical Union, European Geophysical Union, American Meteorological Society, Society Industrial and Applied Mathematics*