

Adele K. Morrison

Senior Lecturer

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Academic Qualifications

Doctor of Philosophy	<i>Australian National University</i>
- Uwe Radok Award for best PhD thesis from the Australian Meteorological and Oceanographic Society	2014
Graduate Diploma in Education	<i>University of Canberra</i>
- Bernhard Neumann Memorial Award for Outstanding Mathematics Student	2006
Bachelor of Science (Hons)	<i>Australian National University</i>
- University Medal in Physics and First Class Honours	2005

Employment History

Senior Lecturer Australian National University	Canberra, Australia 2024 - present
Australian Research Council DECRA Fellow Australian National University	Canberra, Australia 2017 - 2023
Postdoctoral Research Associate Princeton University	Princeton, USA 2014 – 2016
Secondary School Physics and Mathematics Teacher Radford College and ANU Secondary College	Canberra, Australia 2007 – 2011

Awards

IAPSO Early Career Scientist Medal	2025
<i>A biennial award of the International Association for the Physical Sciences of the Oceans, for outstanding research in physical oceanography and cooperation in international research</i>	
COSIMA Most Selfless Contributor Award	2023
<i>For community leadership and model development contributions to the Consortium of Ocean – Sea Ice Modelling in Australia (COSIMA)</i>	
Malcolm McIntosh Prize for Physical Scientist of the Year	2022
<i>One of the Australian Prime Minister's Prizes for Science (\$50,000 prize)</i>	
L'Oréal - UNESCO For Women in Science Award	2020
<i>One of five Australia / NZ Fellows (\$25,000 prize)</i>	
Meyers Medal	2018
<i>A biennial award for early career researchers from the Australian Meteorological and Oceanographic Society</i>	
Uwe Radok Award	2014
<i>For best PhD thesis in the fields of meteorology, oceanography, glaciology or climatology awarded in Australia</i>	

Scientific Leadership Roles

Provided evidence to the Australian Federal Government	2024
<i>Evidence provided at the 'Inquiry into the importance of Antarctica to Australia's national interests'</i>	
Member of the ACCESS-NRI Scientific Advisory Committee	2022 – present
<i>ACCESS-NRI is an NCRIS-funded National Research Infrastructure supporting development of Australia's climate models.</i>	
Program Leader, Australian Centre for Excellence in Antarctic Science (ACEAS)	2021 – present
<i>ACEAS is a \$20M ARC Special Research Initiative.</i>	
CLIVAR Ocean Model Development Panel (OMDP) Member	2020 – 2024
<i>OMDP coordinates international ocean model intercomparisons and development.</i>	
Co-chair, Consortium for Ocean and Sea Ice Modelling in Australia (COSIMA)	2021 – present
<i>Leadership of COSIMA's 100+ member community, including coordinating weekly online meetings, annual workshops and model development efforts.</i>	
Session Convenor	2016 – present
<i>AGU Ocean Sciences Meetings 2016, 2018, 2024</i>	
<i>AMS International Conference on Southern Hemisphere Meteorology and Oceanography 2022</i>	
<i>Australian Meteorological and Oceanographic Society Conferences 2018, 2019</i>	

Research Funding (as Chief Investigator)

Australian Research Council (ARC) Discovery Project, DP250100759	AUD \$540k, 2025-2027
<i>Improving projections of the risk of ocean-driven Antarctic ice melt (Lead CI)</i>	
ARC Discovery Project, DP230101836	AUD \$340k, 2023-2025
<i>Connecting ocean tides to the large-scale ocean circulation</i>	
ARC Special Research Initiative, SR200100008	AUD \$20M, 2022-2025
<i>The Australian Centre for Excellence in Antarctic Science</i>	
ARC Linkage Project, LP200100406	AUD \$1.2M, 2021-2025
<i>Building Australia's next-generation ocean-sea ice model</i>	
NZ Marsden Fund Grant, 20-UOO-173	NZ \$960k, 2021-2023
<i>How vulnerable are Antarctica's coasts to colonisation?</i>	
ARC Discovery Project, DP190100494	AUD \$583k, 2019-2024
<i>Risks of rapid ocean warming at the Antarctic continental margin</i>	
ARC Discovery Early Career Researcher Fellowship, DE170100184	AUD \$360k, 2017-2022
<i>Resolving the mechanisms and pathways of Antarctic dense water formation (Lead CI)</i>	
US Department of Energy, Regional & Global Climate Modeling Program Grant, DE-SC0012457	USD \$763k, 2015-2017
<i>Three-dimensional structure of the Southern Ocean overturning circulation</i>	

Research Supervision

Primary supervisor for postdoc Julia Neme (ANU).	2025 – present
Panel chair and co-supervisor for PhD student Hangyu Meng (ANU).	2023 – present
Primary supervisor for postdoc Wilton Aguiar (ANU).	2023 – present
Co-supervisor for postdoc Fabio Dias (UNSW).	2022 – present
Co-supervisor for postdoc Matthis Auger (UTAS).	2022 – present
Primary supervisor for PhD student Claire Yung (ANU).	2022 – present
Primary supervisor for PhD student Polina Sholeninova (ANU).	2022 – present
Joint primary supervisor for Honours student Jemma Jeffree (ANU).	2022
<i>First class honours and university medal. She continued on to a PhD at ANU.</i>	
Co-supervisor for PhD student Christina Schmidt (UNSW).	2021 – 2025

Primary supervisor for Honours student Claire Yung (ANU). <i>First class honours. She continued on to a PhD at ANU.</i>	2021
Co-supervisor for PhD student Natalia Ribeiro (UTAS).	2021 – 2022
Primary supervisor for postdoc Wilma Huneke (ANU).	2020 – 2022
Co-supervisor for PhD student Hannah Dawson (UNSW). <i>She continued on to a postdoc at UTAS.</i>	2020 – 2024
Co-supervisor for postdoc Pedro Colombo (UNSW).	2022 – 2024
Joint primary supervisor for Honours student Ruth Moorman (ANU). <i>First class honours and university medal.</i> <i>She received a John Monash Scholarship to undertake a PhD at Caltech.</i>	2019
Co-supervisor for PhD student Josue Martinez Moreno (ANU). <i>He continued on to a postdoc at IFREMER – French Institute for Ocean Science.</i>	2017 – 2021
Primary supervisor for Honours-equivalent student Henri Drake (Princeton University). <i>He continued on to complete a PhD at MIT.</i>	2015 – 2016

Teaching

Lecturer for EMSC1006: Blue Planet (ANU, 1 st year Earth Science), 100 students.	2024 – present
Lecturer for EMSC2021: Fundamentals of Climate Science (ANU, 2 nd year Earth Science), 60 students.	2020 – present
Lecturer for ENVS3013: Climate Change: Past, Present and Future (ANU 3 rd year Environmental Science), 60 students.	2020 – 2021
Supervision of undergraduate research projects (Advanced Study Courses equivalent to one semester-long subject and Summer Scholarship projects).	2014 – present

Invited Talks (last 5 years)

Plenary talk, <i>IAMAS-IACS-IAPSO Joint Assembly 2025</i> (BACO-25), Korea.	2025
Invited talk, <i>European Geosciences Union General Assembly</i> , Austria, in session: ‘The Southern Ocean in a changing climate’. Note: I could not attend.	2024
Plenary talk, <i>Australasian Leadership Computing Symposium</i> , Canberra.	2023
Invited talk, <i>Workshop on Drivers of the Global Overturning Circulation</i> , Sweden. Note: I could not attend.	2022
Invited talk, <i>European Geosciences Union General Assembly</i> , Austria, in session: ‘Ocean ventilation and its consequences for ocean biogeochemistry and ecosystems’. Note: I could not attend.	2022
Plenary talk, <i>NZ Annual Physical Oceanography Workshop</i> , virtual	2020
Plenary talk, <i>Australian Meteorological and Oceanographic Society Conference</i> , Fremantle.	2020