

Curriculum Vitae

Dr. Andrew McColl Hogg

Academic Qualifications

03/1993–12/1996 **Bachelor of Science, 1st Class Honours**, Australian National University

01/1998–08/2001 **Doctorate of Philosophy**, The University of Western Australia

Main Research Interests

My research interests centre on physical processes governing the ocean and climate. This includes the circulation of the Southern Ocean and its response to climate change, the role of the ocean in climate variability, coupled ocean-atmosphere interactions and the energetics of turbulence and mixing in the ocean. My experience includes numerical simulation, theoretical development and laboratory modelling.

Present Appointment

Associate Professor

Geophysical Fluid Dynamics Group

Research School of Earth Sciences, ANU

Previous Appointments

07/2012–06/2016 **Australian Research Council Future Fellow**, ANU

05/2004–06/2012 **ARC Postdoctoral Fellow & Senior Lecturer**, ANU

09/2001–04/2004 **Postdoctoral Research Fellow**, Southampton Oceanography Centre

Academic Awards and Distinctions

2015 **Priestley Medal**, awarded by Australian Meteorological & Oceanographic Society

2015 **Nicholas P. Fofonoff Medal**, awarded by the American Meteorological Society

2012 **Frederick White Prize**, awarded by the Australian Academy of Science

Publications

71 published journal papers across Fluid Mechanics, Physical Oceanography, Climate and Paleoclimate. 1077 total citations, H-index 18 (ISI). Selected recent publications include:

A. MCC. HOGG & J. R. BLUNDELL, 2006: Interdecadal variability of the Southern Ocean. *J. Phys. Oceanogr.*, **36**, 1626–1645.

M. P. MEREDITH & A. MCC. HOGG, 2006: Circumpolar response of Southern Ocean eddy activity to changes in the Southern Annular Mode. *Geophys. Res. Lett.*, **33**, doi:10.1029/2006GL026499.

W. K. DEWAR & A. MCC. HOGG, 2010: Inviscid dissipation of balanced flow. *Ocean Modell.*, **32**, 1–13.

A. MCC. HOGG, 2010: An Antarctic Circumpolar Current driven by surface buoyancy forcing. *Geophys. Res. Lett.*, **37**, L23601, doi:10.1029/2010GL044777.

A. K. MORRISON & A. MCC. HOGG, 2013: On the relationship between Southern Ocean overturning and ACC transport. *J. Phys. Oceanogr.*, **43**, 140–148, doi:10.1175/JPO-D-12-057.1.

A. MCC. HOGG & D. R. MUNDAY, 2014: Does the sensitivity of Southern Ocean circulation depend upon bathymetric details? *Phil. Trans. R. Soc. A*, **372**, 2130050, doi:10.1098/rsta.2013.0050.

A.MCC. HOGG, M.P. MEREDITH, D.P. CHAMBERS, E.P. ABRAHAMSEN, C.W. HUGHES & A.K. MORRISON, 2015: Recent trends in the Southern Ocean eddy field, *J. Geophys. Res.*, 119, doi:10.1002/2014JC010470.

C.C. CHAPMAN, A.MCC. HOGG, A.E. KISS & S.R. RINTOUL, 2015: The Dynamics of Southern Ocean Storm Tracks, *J. Phys. Oceanogr.*, **45**, 884–903, doi: 10.1175/JPO-D-14-0075.1.

I. ROSSO, A.MCC. HOGG, A.E. KISS & B. GAYEN, 2015: Topographic influence on sub-mesoscale dynamics in the Southern Ocean, *Geophys. Res. Lett.*, **42**, doi:10.1002/2014GL062720.

E.W. DODDRIDGE, D.P. MARSHALL AND A.MCC. HOGG, 2016: Eddy cancellation of the Ekman cell in subtropical gyres, *J. Phys. Oceanogr.*, **In Press**, doi:10.1175/JPO-D-16-0097.1.

K. SNOW, B.M. SLOYAN, S.R. RINTOUL, A.MCC. HOGG AND S.M. DOWNES, 2016: Controls on circulation, cross-shelf exchange and dense water formation in an Antarctic polynya, *Geophys. Res. Lett.*, **43**, 7089–7096, doi:10.1002/2016GL069479.

A. MCC. HOGG, P. SPENCE, O. A. SEANKO & S. M. DOWNES, 2017: The energetics of Southern Ocean upwelling, *J. Phys. Oceanogr.*, **47**, 135-153, doi:10.1175/JPO-D-16-0176.1.

Grants

	11 funded ARC grants, including:
2008–2010	ARC Discovery Project: DP0877824, <i>Causes of Enhanced Warming of the Southern Ocean</i> , A. McC. Hogg, \$287,000
2009–2011	ARC Discovery Project: DP0986244, <i>Mixing and dissipation in the ocean: Processes for the next generation of climate models</i> , A. McC. Hogg, R. W. Griffiths, W. K. Dewar & P. Berloff, \$370,000
2011–2017	ARC Centre of Excellence for Climate System Science: CE11E0098, Pitman, Jakob, Bindoff, England, Karoly, Roderick, Alexander, Hogg, Dommenges, Lynch, Lane, Sherwood & Steffen, \$21,000,000
2012–2016	ARC Future Fellowship (FT2): FT120100842, <i>Dynamics of the Southern Ocean</i> , A. McC. Hogg, \$780,675
2016–2020	ARC Linkage Project: LP160100073, <i>An Australian Consortium for Eddy-Resolving Global Ocean-Sea Ice Modelling</i> , Hogg, England, Brassington, Heil, Oke, Spence & Nikurashin, \$598,000

Teaching Experience

	1st, 2nd and 3rd year undergraduate courses, including design & delivery of:
2006–2017	Lecturer PHYS 3034: <i>Physics of Fluid Flow</i> Department of Physics/Physics Education Centre, ANU
2012–2016	Lecturer EMSC 2021: <i>Fundamentals of Climate System Science</i> Research School of Earth Sciences, ANU

Research Supervision Experience

Honours Students Supervisor to 6 Honours students since 2005

Graduate Students Supervisor to 7 PhD students (5 graduated) and one MPhil student since 2009.

Canberra, Australia, March 24, 2017