

Taimoor Sohail

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Education

The Australian National University **Canberra, Australia**
PhD Candidate in Earth Sciences *2016–2020*
Thesis Title: *The role of convection in Southern Ocean circulation*
Supervisors: Dr. Bishakhdat Gayen and Dr. Andrew McC. Hogg
Funded by: Endeavour Scholarship and ARC Centre of Excellence in Climate Extremes

Lafayette College **Easton, PA, USA**
Bachelor of Science in Mechanical Engineering *2010–2014*
Magna Cum Laude

Experience

CTD Watchstander **March 2018 – May 2018**
2018 GO-SHIP S04P Transect *Southern Ocean*

- Oversaw CTD casts and collected seawater samples for alkalinity, salinity and nitrogen isotopes over 69 day cruise in Pacific sector of Southern Ocean (S04P).

Young Professional Officer – Climate Change **November 2015 – January 2016**
LEAD Pakistan *Islamabad, Pakistan*

- Head of Operations for the Climate & Development Knowledge Network (CDKN) funded by Department for International Development.

Research Associate **November 2014 – November 2015**
Centre for Climate Research & Development (CCRD) *Islamabad, Pakistan*
Project Title: *Low-carbon Scenario Analysis Greenhouse Gas Inventory project*

- Implemented for the Government of Pakistan, in collaboration with the International Institute for Sustainable Development (IISD);

Teaching

Tutor, Classical Mechanics **July 2018 – Present**
Department of Physics, ANU *Canberra, Australia*

Lab Demonstrator, Climate System Science **July 2017 – December 2017**
Research School of Earth Sciences, ANU *Canberra, Australia*

Lab Demonstrator, Physics of Fluid Flows **February 2017 – May 2017**
Research School of Earth Sciences, ANU *Canberra, Australia*

Teaching Assistant, Climate Change **August 2013 – December 2013**
Department of Geology, Lafayette College *Easton, PA, USA*

Publications

Sohail, T., Gayen, B. and Hogg, A. McC. Convection drives mixing in the Southern Ocean. *Geophysical Research Letters* (2018), 45, doi:10.1029/2018GL077711

Meetings & Conferences

Oral Presentations.....

- **Sohail, T.**, Gayen, B. and Hogg, A. McC. The role of convection and eddies in driving mixing in the Southern Ocean. *American Geophysical Union - Ocean Sciences Meeting*, 2018.
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. The role of convection in driving mixing in the Southern Ocean. *AMOS-ICSHMO Conference*, 2018.
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. Impact of convection on heat uptake and mixing in the Southern Ocean. *10th Australasian Natural Convection Workshop (ANCW)*, 2017. **Awarded Best Speaker.**
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. Turbulent convection in geostrophic circulation with wind and buoyancy forcing. *American Physical Society - Division of Fluid Dynamics (APS-DFD) Meeting*, 2017.
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. The Impact of Wind and Temperature on Southern Ocean Circulation. *Australian Society of Exploration Geophysics (ASEG)*, 2017. **Invited Speaker.**
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. Can convection drive Southern Ocean circulation? *RSES Student Conference*, 2017. **Awarded Best Speaker.**
- **Sohail, T.**, Vreugdenhil, C. A., Gayen, B. and Hogg, A. McC. A turbulence-resolving model of Southern Ocean circulation. *20th Australasian Fluid Mechanics Conference (AFMC)*, 2016.

Posters.....

- **Sohail, T.**, Gayen, B. and Hogg, A. McC. Convection drives mixing in the Southern Ocean. *Center of Excellence in Climate System Science Workshop*, 2017. **Awarded Best Poster.**
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. A turbulence-resolving model of Southern Ocean circulation. *AMOS/MSNZ Conference & ANZ Climate Forum*, 2017.
- **Sohail, T.**, Gayen, B. and Hogg, A. McC. A turbulence-resolving model of Southern Ocean circulation. *Center of Excellence in Climate System Science Workshop*, 2016.

Summer/Winter Schools.....

Fluid Dynamics & Sustainability of the Environment Summer School August 2018 – September 2018 <i>hosted by the University of Cambridge and L'Ecole Polytechnique</i>	Cambridge, UK
1st ARC Centre of Excellence for Climate Extremes Winter School <i>hosted by the ARC Centre of Excellence on Climate Extremes</i>	June 2018 Canberra, Australia
6th ARC Centre of Excellence for Climate System Science Winter School <i>hosted by the ARC Centre of Excellence on Climate System Science</i>	June 2017 Sydney, Australia
14th Coupled Data Assimilation Summer School <i>hosted by the Chinese Academy of Sciences (CAS)</i>	June 2015 – July 2015 Beijing, China

Skills

Computer.....

Programming Languages: Python, Fortran, Matlab

Software Packages: Paraview, Numeca FINE/Open, COMSOL Multiphysics, Engineering Equation Solver (EES), Autodesk Inventor, ANSYS, NI LabVIEW, DirectSoft PLC, Adobe Photoshop, InkScape

Language.....

English: Fluent

Urdu: Fluent

Awards & Honours

- *Cover Image:* *Geophysical Research Letters*, Volume 45, Issue 9
- *Best Speaker:* RSES Student Conference 2017 & 10th ANCW 2017
- *Best Poster:* Center of Excellence in Climate System Science Workshop 2017
- 2017 Australian Society of Exploration Geophysics (ASEG) ACT Scholarship Recipient - Invited Speaker
- 2016 Endeavour Scholarship Recipient

Outreach & Volunteering

STEM Professional: Scientists and Mathematicians in Schools
Commonwealth Scientific and Industrial Research Organisation (CSIRO)

July 2017 – Present
Canberra, Australia

Student Representative: Equity and Diversity Committee
Research School of Earth Sciences, ANU

May 2017 – Present
Canberra, Australia

CFP Seminar Convenor
Research School of Earth Sciences, ANU

April 2017 – Present
Canberra, Australia