



OUR MISSION

THE CCRC ACTIVELY ENGAGES IN WORLD-CLASS RESEARCH FOCUSED ON CLIMATE SYSTEM SCIENCE TO HELP BETTER UNDERSTAND, PREDICT, AND ADAPT TO CLIMATE VARIABILITY AND CLIMATE CHANGE.

RESEARCH HIGHLIGHTS

- Australian wildfires will occur earlier in the year in the future: 10.1029/2019GL083699
- The most vulnerable experience the highest levels of air pollution: 10.1088/1748-9326/ab486a
- ENSO diversity is critical for managing Australia's future climate risks: 10.1175/BAMS-D-18-0057.1
- Plants do not decrease transpiration during heat extremes: 10.5194/bg-16-903-2019
- A new role for the indirect effect of aerosols: 10.1038/s41612-019-0089-1
- Varied observations help constrain climate projections: 10.1007/s00382-019-04690-8
- A new observationally-based runoff estimate: 10.5194/hess-23-851-2019
- Rainfall metrics help identify biases in extremes: 10.1088/1748-9326/ab51b6
- Humans helped cause the recent Tasman Sea marine heat wave: 10.1175/BAMS-D-18-0116.1
- The Montreal Protocol helped limit global warming: 10.1088/1748-9326/ab4874

AWARDS & HONOURS

- Andy Pitman: Order of Australia (AO) for distinguished service as a leading researcher
- John Church: BBVA Foundation Frontiers of Knowledge Award in Climate Change
- Lisa Alexander: Royal Meteorological Society's 2018 Gordon Manley Weather Prize
- Laurie Menviel: Australian Academy of Science Dorothy Hill Medal
- Andy Pitman: Royal Society of Victoria's Medal for Excellence in Scientific Research
- Matt England: Royal Society of New South Wales' 2019 James Cook Medal
- Agus Santoso: Editor's Prize from the American Meteorological Society
- Melissa Hart, Angela Maharaj, Giovanni Di Virgilio: CASANZ Clean Air Award
- Lisa Alexander: AMOS Fellow
- Multiple student and postdoctoral awards: Annette Stellema, Rishav Goyal, Manon Sabot and Sanaa Hobeichi.

RESEARCH OUTPUTS

Six reports and two book sections
132 journal articles:

- 40% in top 10% most cited, 87% in SJR's top 10%
- 17 publications with student first authors
- 9 publications in *Nature* family journals

NATIONAL & INTERNATIONAL LEADERSHIP

CONFERENCE

- CCRC hosted the first International Conference of Paleoclimatology (ICP13) in the Southern Hemisphere

IPCC LEADERSHIP

- Jason Evans: Lead author, Intergovernmental Panel on Climate Change (IPCC) Special Report on Climate Change & Land Desertification Chapter
- Alejandro Di Luca: Lead author, IPCC 6th Assessment Report on 'Weather & climate extreme events in a changing climate'

INTERNATIONAL LEADERSHIP

- Lisa Alexander: World Research Climate Programme (WCRP) Joint Scientific Committee; Co-Chair, WCRP Grand Challenge on Weather & Climate Extremes
- Katrin Meissner: Executive Committee & Scientific Committee for Past Global Changes (PAGES)
- Steve Sherwood: Steering Committee, WCRP Grand Challenge on Climate Sensitivity
- Matthew England: Chair, Advisory Board, European Southern Ocean Carbon & Heat Impact on Climate Project (SO-CHIC)
- Matthew England: Chair, Advisory Panel, Securing Multidisciplinary Understanding & Prediction of Hiatus & Surge Events Project UK
- Lisa Alexander: Executive Committee, International Union of Geodesy & Geophysics (IUGG), International Association of Meteorology & Atmospheric Sciences (IAMAS)
- Lisa Alexander: Chair, World Meteorological Organization (WMO) Expert Team on Sector-specific Climate Indices

- Jason Evans: WCRP Coordinated Regional Climate Downscaling Experiment (CORDEX) Science Advisory Team
- Laurie Menviel: Steering Committee, Quaternary Interglacials Working Group (QUIGS) PAGES
- Katrin Meissner: Steering Committee, Cycles of Sea-Ice Dynamics in the Earth system Working Group (C-SIDE) PAGES
- John Church: Chair, Transient Tracer-based Investigation of Circulation & Thermal Ocean Change (TICTOC) Advisory Committee
- Sarah Perkins-Kirkpatrick: Co-lead, WMO Commission for Climatology Expert team on Communication & Outreach
- Donna Green: Expert Advisory for Governing Plastic, Institute for Advanced Studies, Switzerland
- Andy Pitman: American Geophysical Union (AGU) International Committee for International Participation
- Alex Sen Gupta: Climate & Ocean Variability Predictability and Change (CLIVAR), North Western Pacific Ocean Circulation & Climate Experiment (NPOCE) Committee
- Andrea Taschetto: CLIVAR Tropical Basin Interactions Working Group
- Gab Abramowitz: Global Land & Atmosphere System Study, WCRP

NATIONAL LEADERSHIP

- Angela Maharaj: Australian Meteorological & Oceanographic Society (AMOS), Vice President
- Andrea Taschetto: AMOS Council Member
- Andy Pitman: National Collaborative Research Infrastructure Strategy
- Andy Pitman: Review of Climate Risk Method for Regional Water Strategies NSW DPIE
- Sarah Perkins-Kirkpatrick: Co-convenor, AMOS Annual Conference.

EDITORIAL ROLES

- Lisa Alexander: Editor-in-Chief, *Weather and Climate Extremes*
- Laurie Menviel: Co-Editor-in-Chief, *Climate of the Past*
- Jason Evans: Editor, *Journal of Climate*
- Andy Pitman: Associate Editor, *International Journal of Climatology*
- Sarah Perkins-Kirkpatrick: Associate Editor, *Scientific Reports*
- Donna Green, Katrin Meissner: Executive Editorial Board, *Environmental Research Letters*
- Steve Sherwood: Editorial Board, *Environmental Research Letters*
- Martin De Kauwe: Associate Editor, *Biogeoscience*
- Martin De Kauwe: Editorial Board, *Global Change Biology*
- Martin De Kauwe: Editorial Board, *New Phytologist*
- Agus Santoso: Editor, AGU Monograph 'El Niño Southern Oscillation in a Changing Climate'
- Alex Sen Gupta: Guest Editor, *Oceanography 2019*, special issue on 'Ocean Warming'
- Andrea Taschetto: Guest Editor of *Atmosphere on Weather and Climate Extremes*.
- Andrea Taschetto: Associate Editor of the *Journal of Southern Hemisphere Earth Systems Science*
- Gab Abramowitz: Associate Editor for *Journal of Hydrometeorology*

PROMOTIONS

Gab Abramowitz: Associate Professor
Lisa Alexander: Professor
Martin De Kauwe: Senior Lecturer
Giovanni Di Virgilio: Lecturer

VISITORS

- Stephen Griffies (GFDL)
- Ed Hawkins (University of Exeter)



OUR VISION

THE CCRC IS A WORLD-LEADING RESEARCH CENTRE IN PHYSICAL AND BIOGEOCHEMICAL CLIMATE SCIENCE, EDUCATING THE AUSTRALIAN AND GLOBAL COMMUNITY ABOUT RISKS ASSOCIATED WITH CLIMATE VARIABILITY AND CHANGE.

www.ccrc.unsw.edu.au/publications

