



## ICSHMO 2022 Conference Programme

(Version as at 11<sup>th</sup> February 2022 and subject to late changes)

### Week 8-11 February 2022

Tuesday 8 February Workshops						
10:00am				<b>Workshop 5</b> Python for Atmosphere and Ocean Science Led by: Dr Damien Irving (CSIRO)	<b>Workshop 6</b> Understanding the South Pacific Convergence Zone: Modern and Past Variability and Teleconnections to the Extra-tropical Southern Hemisphere Led by: Kyle Clem (Victoria University of Wellington)	<b>Workshop 5</b> Python for Atmosphere and Ocean Science Led by: Dr Alexander Pletzer (NIWA)
10:30am-12:00pm	<b>Workshop 1</b> How to use weather radar data <i>Sponsored by Vaisala</i> Led by: Valentin Louf, Dr Joshua Soderholm (Bureau of Meteorology)	<b>Workshop 2</b> Climate in the Cloud: Web-enabled cloud-computing educational resources for climate, atmosphere, and ocean science Led by: Shane Keating (UNSW Sydney)	<b>Workshop 3</b> Effective climate communication: from stakeholders to stadiums Led by: Tahnee Burgess, Ana Ross (Monash Climate Change Communication Research Hub)			
12:00pm-1:00pm	Lunch Break					
1:00pm-2:30pm	<b>Workshop 1 Continued</b>	<b>Workshop 2 Continued</b>	<b>Workshop 3 Continued</b>	<b>Workshop 5 Continued</b>	<b>Workshop 7</b> Tips and tricks on writing and submitting papers Led by: Dr Laura Revell, Jonny Williams (NIWA)	<b>Workshop 8 Continued</b>
2:30pm-3:00pm	Tea Break					
3:00pm - 5:00pm	<b>Workshop 4</b> Assessing the Climate Science Training needs of the Global South Led by: World Climate Research Program (WCRP) Academy					

## Wednesday 9 February

8:30am-9:00am	<b>Opening Ceremony</b> Mihi Whakatu, Corban Te Aika MC: Luke Sutherland-Stacey, James Renwick			
9:00am-10:00am	<b>Keynote: Dr Helen Cleugh (World Climate Research Programme/CSIRO)</b> - The World Climate Research Programme – Our Climate Future <b>Invited Speaker: Pat Langhorne (University of Otago)</b> - Antarctic Sea ice – a fragile interface at the mercy of the ocean and atmosphere			
10:00am-10:30am	Tea break			
Session 1	<b>1A</b>	<b>1B</b>	<b>1C</b>	<b>1D</b>
	<b>Antarctic sea ice and its climate interactions 1</b> Chair: Will Hobbs Co-Chair: Ariaan Purich	<b>Weather radar applications 1</b> Chair: Valentin Louf Co-Chair: Joshua Soderholm <i>Sponsored by Vaisala</i>	<b>Atmospheric greenhouse gas measurements and modelling to support emission reductions at urban, national, and global scale 1</b> Chair: Sara Mikaloff-Fletcher Co-Chair: Zoe Loh <i>Sponsored by NIWA</i>	<b>Physical and Biological Connectivity in Southern Hemisphere Oceans and Seas 1</b> Chair: Christopher Roach Co-Chair: Carolyn Lundquist
10:30am-10:40am	<b>Ryan Fogt</b> - A regime shift in seasonal total Antarctic Sea ice extent in the 20th century	<b>Valentin Louf</b> - OceanPOL: a shipborne C-Band dual-polarisation research radar navigating the Southern Hemisphere	<b>Kevin Trenberth</b> - Deciphering carbon emissions and climate change	<b>Erik Behrens</b> - The impact of sea-ice drift and ocean circulation on dispersal of toothfish eggs and juveniles in the Ross Gyre and Amundsen Sea
10:42am-10:52am		<b>Joshua Soderholm</b> - Australian Unified Radar Archive (AURA)	<b>David Noone</b> - Co-transport and complementary sources of water vapor, methane and isotopologues in the Southern Hemisphere	<b>Alice Della Penna</b> - The impact of a Southern Ocean cyclonic eddy on mesopelagic micronekton
10:54am-11:04am	<b>Will Hobbs</b> - Ocean-ice interaction as a limit to Antarctic Sea ice growth	<b>Jordan Brook</b> - A comparison of new and existing weather radar gridding techniques	<b>Yuanyuan Huang</b> - Increasing sensitivity of terrestrial nitrous oxide emissions to precipitation variations	<b>Erik Johnson</b> - Episodic Summer Chlorophyll-a Blooms Driven by Synoptic Winds at Aotearoa's Southeast Shelf Break Front
11:06am-11:16am	<b>Inga Smith</b> - All in balance? Interannual variability of the fast ice in McMurdo Sound over 25 years and its connections to ocean, iceshelf and atmosphere	<b>Rob Warren</b> - Verification of storm attribute neighbourhood probabilities from a convection-permitting ensemble using single-polarization radar data	<b>Alexander Geddes</b> - Inverse Modelling of Aotearoa New Zealand's Agricultural Methane Emissions	<b>Aimee Van Der Reis</b> - Go with the flow: Population connectivity of the New Zealand deep sea lobster, <i>Metanephrops challengeri</i>
11:18am-11:28am	<b>Stephy Libera</b> - Role of ocean processes on month-to-month predictability of Antarctic Sea Ice	<b>Alain Protat</b> - 3D wind retrieval error analysis using a 50m resolution supercell thunderstorm simulation	<b>Elizabeth Keller</b> - Modelling carbon fluxes from New Zealand's pastoral agriculture	<b>Robert Smith</b> - The Nature of Shelf-Open Ocean Exchange Around Southern New Zealand

11:30am-11:40am	<b>Inga J. Smith</b> - Impacts on Antarctic Sea ice area of increased ice shelf meltwater over centennial timescales in CCSM4	<b>Ulrike Romatschke</b> - 3D convectivity and convective/stratiform classification from radar reflectivity	<b>Xinyi (Lexie) Lu</b> - Isotopic characterisation of methane emission sources from Melbourne, Australia	Q&A
11:40am-11:50am	Q&A	Q&A	Q&A	
11:50am-12:40pm	Lunch Break			
Session 2	<b>2A</b>	<b>2B</b>	<b>2C</b>	<b>2D</b>
	<b>Antarctic sea ice and its climate interactions 2</b> Chair: Will Hobbs Co-Chair: Ariaan Purich	<b>Weather radar applications 2</b> Chair: Valentin Louf Co-Chair: Joshua Soderholm <i>Sponsored by Vaisala</i>	<b>Atmospheric greenhouse gas measurements and modelling to support emission reductions at urban, national, and global scale 2</b> Chair: Sara Mikaloff-Fletcher Co-Chair: Zoe Loh	<b>Physical and Biological Connectivity in Southern Hemisphere Oceans and Seas 2</b> Chair: Christopher Roach Co-Chair: Carolyn Lundquist
12:40pm-12:50pm	<b>Dongxia Yang</b> - Impact of tropical Indian SST on the sea ice trend over the western Ross Sea	<b>John Nicol</b> - Absolute calibration of weather radar using ground clutter and vertically profiling radar	<b>Timothy Hilton</b> - Hestia-AKL: An Inventory of Fossil Fuel Carbon Dioxide Emissions for Auckland, New Zealand	<b>Adele Morrison</b> - Remote control of West Antarctic Ocean temperature by Weddell Sea dense water formation
12:52pm-1.02pm	<b>Yuhang Pan</b> - Trends and variability of clouds and radiation over the Southern Ocean and the link to Antarctic Sea ice	<b>Beatriz Reboredo</b> - Comparison of Tipping Bucket rain gauge, radar and satellite derived rainfall estimates in the Auckland region	<b>Hayden Young</b> - Investigating the variability in the CO:CO2ff emission ratio at different site types and times of day in Auckland, New Zealand	<b>Andrew Hurley</b> - Internal Tidal Bores as a Driver of Slope-Shelf Transport in the Otago Submarine Canyon System
1:04pm-1.14 pm	<b>Pat Wongpan</b> - Sub-Ice Platelet Layer Physics: Insights from a Mushy-Layer Sea Ice Model	<b>Brook Keats</b> - Nowcasting as a flood forecasting system: A catchment focused case study from Auckland, New Zealand	<b>Beata Bukosa</b> - CarbonWatchNZ: Regional to National Scale Inverse Modelling of New Zealand's Carbon Balance	<b>Hannah Dawson</b> - Pathways and timescales of connectivity along the Antarctic continental shelf
1:16pm-1:26pm	<b>Alexander Fraser</b> - Altimetric observation of wave attenuation through the Antarctic marginal ice zone using ICESat-2	<b>John Crouch</b> - South Island West Coast orographic rainfall – a polarimetric radar view	<b>Peter Sperlich</b> - Where is the missing CO2? A regional multi-species approach to trace the fate of atmospheric CO2 in Fiordland National Park, New Zealand	Q&A
1:28pm-1:38pm	<b>Marcello Vichi</b> - A statistical definition of the Antarctic marginal ice zone	<b>Sopia Lestari</b> - Characteristics of Jakarta Rain Rate Associated with The Madden-Julian Oscillation and Topography	Q&A	
1:40pm-1.50pm	<b>Yushi Morioka</b> - Summertime sea ice prediction in the Weddell Sea improved by sea ice thickness initialization	<b>Joe Munchak</b> - Overview of the Tomorrow.io Space Program		
1:50pm-2.00pm	Q&A	Q&A		
2:00pm-2:10pm	Mini break -			

	3A	3B	3C	3D
Session 3	<b>Modelling and prediction - general session 1</b> Chair: Luke Sutherland-Stacey Co-Chair: Mireya Montano Orozco	<b>Modelling, prediction and projections of Southern Hemisphere climate variability and change 1</b> Chair: Harun Rashid Co-Chair: Eun-Pa Lim	<b>Weather and extreme events - general session 1</b> Chair: Daniel Kingston Co-Chair: Beatriz Reboredo	<b>Extending our view of the past: historical climatology and data rescue in the Southern Hemisphere</b> Chair: Linden Ashcroft Co-Chair: Roger Dargaville
2:10pm-2:20pm	<b>Richard Gorman</b> - Forecasting wave interactions within the Marginal Ice Zone	<b>Peter Dobrohotoff</b> - Future Australian climate from the ACCESS-ESM1.5 large ensemble of CMIP6 scenario simulations	<b>Morgan Bennet</b> - Development of an Extreme Hydrometeorological Event Index	<b>Linden Ashcroft</b> - An update on Australian data rescue activities
2:22pm-2:32pm	<b>Hamish Lewis</b> - Remote Influences of Large-Scale Meteorological Variables on Low Clouds	<b>Margot Bador</b> - Future seasonal changes in extreme precipitation scale with changes in the mean	<b>Rasool Porhemmat</b> - Hydrometeorology of large snowfall and snowmelt events in the Southern Alps of New Zealand	
2:34pm-2:44pm	<b>Rafael Santana</b> - Data assimilation sensitivity experiments in the East Auckland Current region	<b>Ulrike Bende-michl</b> - National Hydrological projections for Australia: understanding risks to future water availability	<b>Jingxiang Shu</b> - Atmospheric rivers' direction over land matters for characterising its impact in New Zealand	<b>Julie Jones</b> - An evaluation of the Southern Annular Mode in the Twentieth Century Reanalysis
2:46pm-2:56pm	<b>Sebastien Delaux</b> - Machine learning for coastal storm surge predictions in New Zealand	<b>Zaved Khan</b> - Flood risk in Australia under future climate	<b>Hamish Prince</b> - Following the breadcrumbs: tracking New Zealand atmospheric rivers back to their source	<b>Bojana Rimbovska</b> - Seeing through the fog: surveying Aotearoa's weather in the nineteenth century
2:58pm-3:08pm	<b>Gerald Meehl</b> - The role of interannual ENSO events in decadal timescale transitions of the Interdecadal Pacific Oscillation (IPO)	<b>Kimberley Reid</b> - Extreme Water Vapor Transport during the March 2021 Sydney Floods in the Context of Climate Projections	<b>Fulong Lu</b> - Extreme heavy rain in the southwest of the South Island, 2-4 Feb 2020	<b>Caroline Ummenhofer</b> - Historic changes in Southern Hemisphere wind patterns since the late 1700s from reanalyses and American whaling ship logbooks
3:10pm-3:20pm	Q&A	Q&A	<b>Greg Bodeker</b> - Projecting changes in insured losses resulting from climate-driven changes in extreme precipitation events	Q&A
3:20pm-3:30pm			Q&A	
3:30pm-4:00pm	Tea break			
	4A	4B	4C	4D
Session 4 4.00pm	<b>From ice shelves to the Antarctic Circumpolar Current – Processes, climate variability and climate change in the Ross Sea sector</b> Chair: Erik Behrens Co-Chair: Denise Fernandez	<b>Modelling, prediction and projections of Southern Hemisphere climate variability and change 2</b> Chair: Ian Watterson Co-Chair: Tilo Ziehn	<b>Antarctic climate and cryosphere - general session 1</b> Chair: Kyle Clem Co-Chair: Shalin Shah	<b>Oceanographic processes and observations - general session 1</b> Chair: James Renwick Co-Chair: Arnaud Valcarel

	<b>Craig Stevens</b> - A Synthesis of Ocean Mixing Processes in the Ross Ice Shelf Cavity	<b>Roseanna McKay</b> - Tropical Indian Ocean's Influence on Southern Hemisphere Spring Atmospheric Circulation in a Seasonal Prediction Model	<b>Zhiang Xie</b> - Climate feedbacks controlling global ice sheet dynamics	<b>Denise Fernandez</b> - South Pacific Ocean dynamics redistribute ocean heat content and influence heat exchange with the atmosphere
4:12pm-4:22pm	<b>Melissa Bowen</b> - Tides regulate Antarctic bottom water flow from the western Ross Sea	<b>Francois Engelbrecht</b> - Southern Hemisphere inter-annual predictability	<b>Jonathan Wille</b> - The atmospheric river impact on Antarctic Peninsula ice-shelf stability	<b>Yasha Hetzel</b> - Surface current observations from the IMOS HF radar offshore Ningaloo, Western Australia
4:24pm-4:34pm	<b>Wilma Huneke</b> - On the role of Dense Shelf Water overflows in the dynamics of the Antarctic Slope Current	<b>Alexandra Gossart</b> - A simplified version of a numerical atmospheric model to represent extreme wind events over the Ross Sea sector	<b>Deniz Bozkurt</b> - Temperature and precipitation projections for the Antarctic Peninsula over the next two decades: Contrasting global and regional climate model simulations	<b>Xiangrong Fang</b> - Characterization of submesoscale ocean dynamics on the Australian Northwest Shelf
4:36pm-4:46pm	<b>Alena Malyarenko</b> - Balancing fluxes through WRF - MITgcm interface in the Scripps-KAUST model for the Ross Sea Region	<b>Jonny Williams</b> - Atmospheric impacts of local ocean grid refinement in a coupled earth system model}	<b>Tom Bracegirdle</b> - Antarctic climate projections in CMIP6, new insights and progress since CMIP5	<b>Helen Macdonald</b> - The effect of riverine inputs to the Hauraki Gulf, New Zealand
4:48pm-4:58pm	<b>Graham Rickard</b> - Physical and Biogeochemical Assessments of CMIP5 and CMIP6 Models for the New Zealand EEZ and the Ross Sea Region	<b>Martin Jucker</b> - Stratosphere-Troposphere Coupling During Antarctic Sudden Stratospheric Warmings	<b>Olivia Truax</b> - Evidence of SAM and ENSO influence on last millennium Antarctic climate from paleoclimate data assimilation	<b>Mireya Montaña</b> - Combined influence of the oceanic mesoscale and local winds on the coastal circulation of the Bay of Plenty, New Zealand
5:00pm-5:10pm	<b>Rodrigo Gomez Fell</b> - Dynamics and mechanical integrity of a land-fast sea ice stabilized ice tongue in Western Ross Sea prior to break-off	<b>Harun Rashid</b> - Quantifying the uncertainty of historical climate using the ACCESS-ESM1-5 large ensemble	<b>Lingwei Zhang</b> - Identifying atmospheric processes favouring the formation of Bubble free layer in the Law Dome DSS1617 ice cores, East Antarctica	<b>Charine Collins</b> - The influence of large-scale and coastal circulation on freshwater plumes in Hawke Bay, New Zealand
5:12pm-5:22pm	Q&A	<b>Yusuf Bhatti</b> - Influences of Antarctic ozone depletion on Southern Ocean aerosols	Q&A	<b>Francois Thorat</b> - More or Less Light for Kelp Forests? Satellite-Derived National Trends of Benthic Light and Macroalgal Implications
5:24pm-5:34pm		Q&A		Q&A

## Thursday 10 February

MC: Daniel Kingston

**Keynote: Lyn Carter (University of Otago)** - Mātauranga Māori and climate change

**Invited speaker: James Renwick (Victoria University of Wellington)** - The Past and Future of Antarctic Sea Ice

**Invited Speaker: Jamie Schulmeister (University of Canterbury)** - Paleoclimate data for climate reconstruction and modelling: the good, the bad and the bizarre

Tea break

	5A	5B	5C	5D
Session 5	<b>Year of Polar Prediction in the Southern Hemisphere (YOPP-SH) 1</b> Chair: David Bromwich Co-Chair: Victoria Heinrich	<b>Climate and impacts attribution in the Southern Hemisphere 1</b> Chair: Sarah Perkins-Kirkpatrick Co-Chair: Suzanne Rosier	<b>Southern Ocean Cloud Processes and Climate 1</b> Chair: Yi Huang Co-Chair: Adrian McDonald	<b>Physical and biogeochemical dynamics of the Southern Ocean and Antarctic margins 1</b> Chair: Paul Spence Co-Chair: Adele Morrison
10:30am-10:40am	<b>David Bromwich</b> - An Overview of the Year of Polar Prediction in the Southern Hemisphere (YOPP-SH)	<b>Pandora Hope</b> - Attribution in the IPCC sixth assessment report	<b>Greg Mcfarquhar</b> - Lessons learned from Southern Ocean Cloud-Aerosol-Precipitation-Radiation Field Campaigns in 2017-2018: Needs for Future Observations	<b>Craig Stevens</b> - Polynya Preconditioning: Ocean Processes South of the Drygalski Ice Tongue, Western Ross Sea
10:42am-10:52am	<b>Victoria Heinrich</b> - Who, How and Why? Exploring People's Weather Decision-Making and Information Use Needs in the Coldest, Windiest, and Most Isolated Places on Earth	<b>Dáithí Stone</b> - Progress in the detection and attribution of regional climate change	<b>Neel Desai</b> - Mixed Phase Cloud Microphysics Observations and Climate Model Simulations during MARCUS Campaign	<b>Christina Schmidt</b> - Interannual variability of Antarctic Bottom Water formation in a high-resolution ocean-sea-ice model
10:54am-11:04am	<b>Daniela Liggett</b> - Lessons learnt about the use of environmental information and decision-making needs of Polar operators	<b>Suzanne Rosier</b> - Extreme weather event attribution in New Zealand: a step towards building a 'catalogue' of events for use in climate and impacts studies	<b>Estefania Montoya Duque</b> - Cloud microphysics and precipitation processes over the Southern Ocean under different synoptic conditions during CAPRICORN 2016 and 2018	<b>Natalia Ribeiro</b> - Sixty years of warming on the continental shelf adjacent to the Shackleton Ice Shelf in East Antarctica
11:06am-11:16am	<b>Marie Laure Roussel</b> - Observing and modeling snowfall at Dumont d'Urville station, Antarctica, during YOPP special observing campaign: a 3D approach	<b>Peter Gibson</b> - High-resolution CCAM model simulations over New Zealand for the detection and attribution of climate extremes	<b>Ruhi Humphries</b> - Southern Ocean latitudinal gradients of Cloud Condensation Nuclei	<b>Qing Yee Ellie Ong</b> - Investigation into Antarctic Slope Front Regimes Using an Idealised Isopycnal Model
11:18am-11:28am	<b>Vito Vitale</b> - Water Budget and precipitation in Antarctica: a possible contribution to YOPP-SH winter Special Observing Period (SOP)	<b>Jordis Tradowsky</b> - A progress update of the Extreme Weather Event Real-time Attribution Machine (EWERAM) project	<b>Marc Mallet</b> - Reducing Southern Ocean shortwave radiation errors in the ERA5 reanalysis with machine learning and 25 years of surface observations	<b>Annie Foppert</b> - Deep Argo reveals bottom water properties and pathways in the Australian-Antarctic Basin

11:30am-11:40am	<b>David Mikolajczyk</b> - The Antarctic Meteorological Research and Data Center	Q&A	<b>Son Truong</b> - A comparison of observed and simulated multi-layer mixed-phase clouds over the Southern Ocean	Q&A
11:40am-11:50am	Q&A		Q&A	
11:50am	Lunch Break			
Session 6	<b>6A</b>	<b>6B</b>	<b>6C</b>	<b>6D</b>
	<b>Year of Polar Prediction in the Southern Hemisphere (YOPP-SH) 2</b> Chair: David Bromwich Co-Chair: Victoria Heinrich	<b>Climate and impacts attribution in the Southern Hemisphere 2</b> Chair: Sarah Perkins-Kirkpatrick Co-Chair: Suzanne Rosier	<b>Southern Ocean Cloud Processes and Climate 2</b> Chair: Steven Sherwood Co-Chair: Alain Protat	<b>Physical and biogeochemical dynamics of the Southern Ocean and Antarctic margins 2</b> Chair: Melissa Bowen Co-Chair: Annie Foppert
12:45pm-12:55pm	<b>Marcello Vichi</b> - An observational network for synoptic observations in the Antarctic marginal ice zone	<b>Surendra Rauniyar</b> - Role of external forcing on observed and future changes in rainfall over sub-regions of Victoria, Australia	<b>Adrian Mcdonald</b> - The Deep South National Science Challenge: Cloud and Aerosol Measurements for Improved Climate Model Projections	<b>Julia Neme</b> - Variability of the Weddell Gyre in a global high-resolution numerical model
12:57pm-1:07pm	<b>Penny Rowe</b> - Characterization of Atmospheric River and Foehn Events over the Antarctic Peninsula	<b>Leandro Baltasar Diaz</b> - Attribution of observed precipitation trends in Southern South America	<b>Alex Schuddeboom</b> - The Southern Ocean Radiative Bias, Cloud Compensating Errors and Equilibrium Climate Sensitivity in CMIP6 Models	<b>Andy Hogg</b> - Sensitivity of Antarctic shelf waters and sea ice to wind amplitude
1:09pm-1:19pm	<b>Simon Alexander</b> - The seasonal cycle of precipitation and the link to atmospheric river events at Davis, Antarctica	<b>Sarah Perkins-Kirkpatrick</b> - attribution of the impacts of extreme weather events to anthropogenic climate change	<b>Sonya L. Fiddes</b> - Can we use machine learning to better understand model cloud radiative biases in the Southern Ocean?	<b>Amelie Meyer</b> - Standing meanders in the Southern Ocean: Characteristics and trends over the past 25 years
1:21pm-1:31pm	<b>Tyler Barone</b> - Ice and Mixed-Phase Cloud Microphysical and Macrophysical Properties in McMurdo, Antarctica: Linking in Situ, Remote Sensing Observations and Climate Simulations	Q&A	<b>Andrew Gettelman</b> - The Impact of Cloud Microphysics and Ice Nucleation on S. Ocean Clouds	<b>Claire Yung</b> - Topographic hotspots of Southern Ocean eddy upwelling
1:33pm-1:43pm	<b>Stewart Allen</b> - The OceanMAPS v4 sea-ice forecast demonstration project		<b>Matthew Woodhouse</b> - Improving the representation of the marine atmosphere sulfur cycle – ‘new’ oxidation pathways and their impact on aerosol	<b>Ryan Holmes</b> - Sensitivity of the meridional overturning circulation to spatially variable neutral diffusion in a coarse-resolution ocean model
1:45pm-1:55pm	Q&A		<b>Olaf Morgenstern</b> - Addressing the short-wave cloud radiation biases in a Global Atmosphere Model	<b>Arnaud Valcarcel</b> - Overturn-based estimation of mixing in the Southern Ocean
1:55pm-2:05pm			Q&A	Q&A

2:05pm-2:15pm	Mini break			
Session 7	<b>7A</b>	<b>7B</b>	<b>7C</b>	<b>7D</b>
	<b>Year of Polar Prediction in the Southern Hemisphere (YOPP-SH) 3</b> Chair: David Bromwich Co-Chair: Victoria Heinrich	<b>Atmospheric processes driving aperiodic warming and impacts on melt in Antarctica</b> Chair: Marwan Katurji Co-Chair: Jiawei Zhang	<b>Southern Ocean Cloud Processes and Climate 3</b> Chair: Olaf Morgenstern Co-Chair: Yi Huang	<b>Physical and biogeochemical dynamics of the Southern Ocean and Antarctic margins 3</b> Chair: Annie Foppert Co-Chair: Adele Morrison
2:15pm-2:25pm	<b>Ivana Cerovecki</b> - The effects of cloud biases on the predictability of Antarctic Sea ice edge on subseasonal time scales	<b>Kyle Clem</b> - Tropical forcing of extreme high temperature and surface melt on the Antarctic Peninsula	<b>Patric Seifert</b> - Aerosol-Cloud-Dynamics interactions over Punta Arenas, Chile (53°S, 71°W): A summary of three years of remote sensing and in-situ observations in the frame of DACAPO-PESO	<b>Jan Jaap Meijer</b> - Dynamics of a standing meander of the Subantarctic Front diagnosed from satellite altimetry and along-stream anomalies of temperature and salinity
2:27pm-2:37pm	<b>Ehlke Hepworth</b> - Contrasting roles of Southern Ocean polar cyclones and Atmospheric Rivers in engendering extreme atmospheric anomalies over Antarctic sea-ice	<b>Yaowen Zheng</b> - Understanding surface melt in Antarctica and implication for future ice sheet evolution	<b>Martin Radenz</b> - Observations of heterogeneous ice formation at Punta Arenas and contrasts to the northern hemisphere mid-latitudes	<b>Thierry Penduff</b> - Interannual to multidecadal chaotic ocean variability: large-scale impacts in the Southern Ocean
2:39pm-2:49pm	<b>Greg Leonard</b> - Assessing the impact of winter storms on the stability of a fast-ice cover through the application of a Modified Storm Index	<b>Tamara Pletzer</b> - Characterizing glacial meltwater runoff variability in the Ross Sea Region of Antarctica	<b>David Fuchs</b> - Midlatitude jet position and shift linked to atmospheric convective types	<b>Jakob Weis</b> - Phytoplankton community response to the deposition of wildfire aerosols
2:51pm-3:01pm	<b>Adrian McDonald</b> - Measuring Antarctic Snowfall and it's Relationship to Synoptic Conditions: A cause of climate model bias?	<b>Marte Gé Hofsteenge</b> - The surface energy balance during warming events at Joyce glacier, McMurdo Dry Valleys, Antarctica	<b>Francisco Lang</b> - A New Climatology of Open and Closed Mesoscale Cellular Convection over the Southern Ocean derived from Himawari-8 Observations	<b>Tyler Rohr</b> - Grazing controls on carbon cycling in the Southern Ocean
3:03pm-3:13pm	Q&A	<b>Eva Bendix Nielsen</b> - Data driven approach for assessment of extreme foehn warming in McMurdo Dry Valleys, Antarctica	Q&A	<b>Guillaume Liniger</b> - Surface marine productivity variability in West Antarctic polynyas is not driven by melting ice shelves
3:15pm-3:25pm		Q&A		<b>Karin Kvale</b> - Southern Ocean circulation metrics predict global biogeochemical change with warming
3:25pm-3:35pm				Q&A



3:35pm-4:00pm	Tea break			
Session 8	<b>8A</b>	<b>8B</b>	<b>8C</b>	<b>8D</b>
	<b>Science supporting the Paris agreement: Southern Hemisphere perspectives</b> Chair: Rachel Law Co-Chair: Tilo Ziehn	<b>Climate as a complex system - rapid change, regime shifts and irreversibility</b> Chair: Surendra Rauniyar Co-Chair: Gen Tolhurst	<b>Informing modern risk assessment and decision making with long climate reconstructions</b> Chair: Danielle Verdon-Kidd Co-Chair: Kathy Allen	<b>Atmospheric processes and observations - general session 1</b> Chair: Beatriz Reboredo Co-Chair: Sylvia Nichol
4:00pm-4:10pm	<b>Steven Sherwood</b> - Probabilities of committed warming and the Paris targets	<b>Roger Jones</b> - Global climate as a complex system: heat engines, nonequilibrium steady states and regime change	<b>Tessa Vance</b> - What do palaeoclimate records tell us that the observed records don't? Implications for hydroclimatic risk assessment and decision making	<b>Tahlia Crabtree</b> - Mountain waves extending large horizontal distances from mountain ranges
4:12pm-4:22pm	<b>Andrew King</b> - Transient and quasi-equilibrium climate states at different global warming levels	<b>James Ricketts</b> - "The Blob", Not Just Another Transient Phenomenon	<b>Danielle Verdon-Kidd</b> - Which regions of eastern Australia are experiencing more climate extremes? Looking for answers in the Australia and New Zealand Drought Atlas	<b>Yang Yang</b> - Non-orographic inertia-gravity waves over New Zealand's Southern Alps: a case study
4:24pm-4:34pm	<b>Dave Frame</b> - Emissions metrics and Articles 2 & 4 of the Paris Agreement.	<b>Ivan Sudakow</b> - Climate-biosphere tipping points and the loss of biodiversity	<b>Salman Sharifazari</b> - 600-year drought reconstruction for Christmas Island from remote tree-rings	<b>Luis Ackermann</b> - Orographic Mechanisms and Microphysical Processes during Wintertime Precipitation over West Tasmania, Australia
4:36pm-4:46pm	<b>Jocelyn Turnbull</b> - IG3IS: An Integrated Global Greenhouse Gas Information System	<b>Surendra Rauniyar</b> - Detecting step changes in Victoria's climate	<b>EvaMicheline Campbell</b> - Reconstructing Australia's fire history from cave stalagmites	<b>Cameron McErlich</b> - A Combined Examination of Precipitation Occurrence and Cumulative Distribution Functions in Reanalysis, Observations and CMIP6 models
4:48pm-4:58pm	<b>Ying-ping Wang</b> - Earth system models overestimate carbon-climate feedback	<b>Gen Tolhurst</b> - Regime shifts of observed precipitation intensity distributions from 1900 to 2020 in Victoria, Australia	<b>Benjamin Henley</b> - Coral reconstructions of regional sea surface temperatures place recent Coral Sea and Great Barrier Reef temperatures into a multi-century context	<b>Raghav Srinivasan</b> - Climate time series anomaly detection using convolutional neural networks
5:00pm-5:10pm	<b>Tilo Ziehn</b> - Exploring Australia's future carbon sinks	<b>Neelesh Rampal</b> - Mapping weather anomalies and extremes to circulation regimes in Aotearoa New Zealand	<b>Pauline Treble</b> - Uptick in speleothem oxygen isotopes indicate decreased rainfall recharge to groundwater, southwest Western Australia	<b>Victoire Laurent</b> - The South Pacific Tropical Upper Tropospheric Trough: variability and impact on the French Polynesian climate

5:12pm-5:22pm	<b>Blair Trewin</b> - How do we know when global temperatures are crossing 1.5 °C?	<b>Charlotte McBride</b> - Trends in Probabilities of Temperature Records in the Non-Stationary Climate of South Africa	Q&A	<b>Annika Seppala</b> - Does the coupling of the semiannual oscillation with the quasi-biennial oscillation provide predictability of Antarctic sudden stratospheric warmings?
5:24pm-5:34pm	Q&A	<b>Roger Jones</b> - Defining fire climate (pyroclimate) regimes and detecting regime shifts		<b>Nariefia Abraham</b> - Fully distributed surface energy and mass balance modelling of Brewster Glacier in the Southern Alps of New Zealand
5:35pm-5:45pm		Q&A		Q&A

Friday 11 February				
	MC: Daniel Kingston			
8:30am-9:00am	<b>Keynote: Florence Rabier (ECMWF)</b> - ECMWF: strategy, use of observations and current developments			
9:00am-9:30am	<b>Invited Speaker: Jennifer Salmond (The University of Auckland)</b> - Air quality data for decision making: Are we measuring what counts? <b>Invited Speaker: Susan Solomon (Massachusetts Institute of Technology)</b> - Linking wildfires to stratospheric chemistry and dynamics			
10:00am-10:30am	Tea break			
	<b>9A</b>	<b>9B</b>	<b>9C</b>	<b>9D</b>
Session 9	<b>Downscaling and regional modelling – CMIP6 model selection, CORDEX and regional applications 1</b> Chair: Michael Grose Co-Chair: Peter Gibson	<b>Meteorology and Climatology of Wildfires 1</b> Chair: Grant Pearce Co-Chair: Marwan Katurji	<b>New frontiers in Marine Heatwave Research 1</b> Chair: Alex Sen Gupta Co-Chair: Erik Behrens	<b>Urban Climate 1</b> Chair: Melissa Hart Co-Chair: Negin Nazarian
10:30am-10:40am	<b>Jozef Syktus</b> - Dynamical downscaling of CMIP6 global models with variable resolution climate model in Australian region	<b>Marwan Katurji</b> - Sweep and ejection structures during shrub fires and implications for atmospheric turbulence interactions with the flaming zone	<b>Junde Li</b> - Variability and drivers of ocean temperature extremes in a warming Western Boundary Current	<b>Negin Nazarian</b> - Towards a living lab for enhanced air quality and thermal comfort: analyses of standard occupancy, weather extremes, and COVID-19 pandemic
10:42am-10:52am	<b>Acacia Pepler</b> - Regionally downscaled projections of cyclones for southern Australia	<b>Jiawei Zhang</b> - Turbulent ember transport across the rural-urban interface for fire risk management	<b>Jules Kajtar</b> - Dynamics of the 2017/18 Tasman Sea marine heatwave	<b>Siena Brody-Heine</b> - Regional and Local Scale SO2 Dispersion Modeling of an Eruption Scenario in the Auckland Volcanic Field

10:54am-11:04am	<b>Jason Evans</b> - Considering model independence in Regional Climate Model selection	<b>Ivan Kennedy</b> - Vortical entropic energy in anticyclones as a heat source for severe wildfire conditions from surface friction and evapotranspiration	<b>Colette Kerry</b> - Advection driving the onset of Marine Heatwaves in coastal waters revealed by Adjoint Sensitivity Analysis	<b>Dongqi Lin</b> - Fog dynamics and predictability using a coupled urban-atmosphere numerical model for Christchurch, New Zealand
11:06am-11:16am	<b>Giovanni Di Virgilio</b> - Selecting CMIP6 GCMs for CORDEX dynamical downscaling: model performance, independence, and climate change signals	<b>Dejun Cai</b> - Location, frequency and intensity of cold fronts over southeast Australia and their role in Australia's 2019/2020 Black Summer fire disaster	<b>Neil Malan</b> - Non-uniform coastal warming trends in the East Australian Current System	<b>Jiachen Lu</b> - Implications of employing realistic geometry in large-eddy simulation for urban canopy parameterization
11:18am-11:28am	<b>Suzanne Rosier</b> - Changing rainfall extremes in New Zealand: diagnosis using large regional model ensembles and non-stationary GEV model constructs	<b>Malcolm King</b> - Extreme summertime dry cold fronts and associated weather in southern Australia	<b>Joao Marcos Azevedo Correia de Souza</b> - 2021 warm winter in New Zealand's oceans	<b>Charlotte Waudby</b> - Thunderstorms, hospital asthma presentations and emergency callouts during the grass pollen season in Victoria 2017-2019
11:30am-11:40am	<b>Limbert Fernando Torrez Rodriguez</b> - Assessment of climate change impacts on precipitation and temperature over Subtropical Chile based on South America CORDEX-CORE regional simulations	Q&A	<b>Alex Sen Gupta</b> - Exploring extreme Marine Heatwaves	<b>Lan Yao</b> - The Impacts of Urban High-rises under Different Wind Directions on the Airflow over Dense Built City
11:40am-11:50am	Q&A		Q&A	Q&A
11:50am-12:40pm	Lunch Break			
Session 10	<b>10A</b>	<b>10B</b>	<b>10C</b>	<b>10D</b>
	<b>Downscaling and regional modelling – CMIP6 model selection, CORDEX and regional applications 2</b> Chair: Giovanni DiVirgilio Co-Chair: Sugata Narsey	<b>Meteorology and Climatology of Wildfires 2</b> Chair: Grant Pearce Co-Chair: Marwan Katurji	<b>New frontiers in Marine Heatwave Research 2</b> Chair: Alex Sen Gupta Co-Chair: Erik Behrens	<b>Urban Climate 2</b> Chair: Melissa Hart Co-Chair: Negin Nazarian
12:40pm-12:50pm	<b>Justin Peter</b> - The impact of bias correction on the climate change signal	<b>Tim Kerr</b> - Tuning Fire Weather Information	<b>Stuart Corney</b> - The connection between the toothfish fishery and intense winter warming on the Kerguelen Plateau	<b>Dyah Lukita Sari</b> - Evaluation of Surface Energy Balance Changes from the WRF Urban Model in Jakarta Metropolitan Area
12:52pm-1:02pm	<b>Sam Dean</b> - Will uncertainty see the extinction of the probabilistic climate projection?	<b>Andrew Marshall</b> - Subseasonal drivers of extreme fire weather in Australia during spring and summer	<b>Shinae Montie</b> - Global biogeographical trends and regional ecological legacies of coastal marine heatwaves	<b>Negin Nazarian</b> - Combining high-resolution land use data with crowdsourced air temperature to investigate intra-urban microclimate
1:04pm-1:14pm	<b>Chloe Mackallah</b> - The Australian Climate Service (ACS) strategy for regional modelling and climate projections	<b>Ralph Trancoso</b> - Converting tropical forests to agriculture increases fire risk by fourfold	<b>Felix Cook</b> - Marine heatwaves in shallow water ecosystems of New Zealand	<b>Marzie Naserikia</b> - Global Analyses of Urban Land Cover Impact on Surface Urban Heat across Different Climate Classes

1:16pm-1:26pm	<b>Marcus Thatcher</b> - Experiment design when using a variable resolution global model for CORDEX simulations		<b>Yuxin Wang</b> - Understanding the predictability of marine heatwaves off Western Australia using a linear inverse model	Q&A
1:28pm-1:38pm	<b>Phuong Loan Nguyen</b> - Evaluation and future projection of daily precipitation in CORDEX-SEA regional climate models over Southeast Asia	<b>Siena Brody-Heine</b> - Observed regional and local wind vector change across New Zealand's national network of fire-weather stations	Q&A	
1:40pm-1:50pm	<b>Neelesh Rampal</b> - High-resolution downscaling with interpretable deep learning: resolving precipitation extremes over New Zealand	Q&A		
1:50pm-2:00pm	Q&A			
2:00pm-2:10pm	Mini break			
Session 11	<b>11A</b>	<b>11B</b>	<b>11C</b>	<b>11D</b>
	<b>Downscaling and regional modelling – CMIP6 model selection, CORDEX and regional applications 3</b> Chair: Marcus Thatcher Co-Chair: Ralph Trancoso	<b>Air quality and pollution – general session</b> Chair: James Renwick Co-Chair: Sylvia Nichol	<b>New frontiers in Marine Heatwave Research 3</b> Chair: Alex Sen Gupta Co-Chair: Erik Behrens	<b>Climate and climate change - general session 1</b> Chair: Daniel Kingston Co-Chair: Beatriz Reboredo
2:10pm-2:20pm	<b>Tony Rafter</b> - Precipitation extremes across temporal scales from an ensemble of near convection-permitting simulations – evaluation and projected change	<b>Jamie Halla</b> - Monitoring Air Quality in Auckland, New Zealand	<b>Maxime Marin</b> - Local drivers of extreme upper ocean marine heatwaves assessed using a global ocean circulation model	<b>Michael Grose</b> - The IPCC Interactive Atlas: a useful tool for the Southern Hemisphere climate research and communications
2:22pm-2:32pm	<b>Christopher Roach</b> - Future Marine Climate Downscaling for the New Zealand Region	<b>Hannah Marley</b> - A Quantitative Analysis of the Impact of Land-Sea Breezes and Boundary Layer Structure on the Formation of Brown Haze in Auckland, New Zealand	<b>Nicole Jones</b> - Sub-surface observations of ocean heat content off Northwest Australia during 2020-2021	<b>Olaf Morgenstern</b> - The Southern Annular Mode in 6th Coupled Model Intercomparison Project models
2:34pm-2:44pm	<b>Stephen Stuart</b> - Evaluation of reanalysis-driven regional climate models over New Zealand	<b>Wendy Fan</b> -Do Sea breezes blow microplastics back onto land? Quantification of atmospheric microplastic pollution in a coastal New Zealand city	<b>Catherine Gregory</b> - Understanding Marine Heatwaves and their Drivers for Improved Prediction on a Sub-seasonal to Seasonal Timescale	<b>David Karoly</b> - Causes of some recent observed declines in Southern Hemisphere mid-latitude rainfall on land
2:46pm-2:56pm	<b>Abha Sood</b> - A framework for regional climate impact guided ranking schemes for CMIPx climate model simulations	<b>Hamesh Patel</b> - Personal exposure to ultrafine particles (UFP): the potential benefits of future low emission zones (LEZ) on pollution exposure in the commuter microenvironment	<b>Christopher Chapman</b> - Forecasting of Tasman Sea Marine Heat Waves Using Analogue Methods	<b>Natalie Burls</b> - The Cape Town “Day Zero” drought and Hadley cell expansion

2:58pm-3:08pm	<b>Rachael Isphording</b> - Application of a Standardized Benchmarking Framework to Evaluate Simulated Precipitation in the CORDEX-Australasia Ensemble	<b>Fabrice Lambert</b> - Past Atmospheric Particulate Matter Reconstruction based on Dendrochemistry	<b>Claire Spillman</b> - Predicting marine heatwaves for marine management	<b>Michelle Reboita</b> - Main Teleconnection Patterns that Influence the South America Climate and a Tool for Their Monitoring
3:10pm-3:20pm	Q&A	Q&A	Q&A	<b>Camila Prudente</b> - Land use changes in La Plata Basin and impacts in river level
3:20pm-3:30pm				Q&A
3:30pm-4:00pm	Tea break			
Session 12	<b>12A</b>	<b>12B</b>	<b>12C</b>	
	<b>Modelling and prediction - general session 2</b> Chair: Kyle Clem Co-Chair: Xinlong Liu <i>Sponsored by MetService</i>	<b>Science Communication, Education &amp; Outreach – general session</b> Chair: James Renwick Co-Chair: Sylvia Nichol	<b>Climate and climate change - general session 2</b> Chair: Daniel Kingston Co-Chair: Beatriz Reboredo	
4:00pm-4:10pm	<b>Jono Conway</b> - Deriving optimal multi-model ensemble snow simulations using in-situ meteorological and snowpack observations in the Southern Alps of New Zealand	<b>Elizabeth Viljoen</b> - Tropical cyclone Eloise: A South African case study to evaluate the new paradigm in communication of early warnings using the Impact-Based Severe Weather Warning Service	<b>Blair Trewin</b> - Sleepless in Seattle – global climate in 2021	
4:12pm-4:22pm	<b>Sijin Zhang</b> - RainCast: a rapid update rainfall forecasting system for New Zealand	<b>Olivia Warrick</b> - Enhancing community resilience to drought and prolonged wet periods in the Cook Islands: The Early Action Rainfall Watch	<b>Roger Davies</b> - Changes in cloud heights over the last two decades: a comparison between hemispheres	
4:24pm-4:34pm	<b>F. Jorge Bornemann Arquero &amp; Maxime Rio</b> - A data-driven approach to characterise systematic model errors	<b>Melissa Hart</b> - Where citizen science meets the built environment: the Schools Weather and Air Quality (SWAQ) network	<b>Hunter Douglas</b> - Inequitable population-based emergence of unfamiliar climates projected by CMIP6 models and SSPs	
4:36pm-4:46pm	<b>Andrew Sturman</b> - Application of the WRF model to investigate suitability of different wine grape varieties in regions of complex terrain	<b>Jasmine Chambers</b> - Ocean Decade Australia: A science communication and stakeholder engagement case study to take us from the Ocean we Have to the Ocean we Want	<b>René Garreaud</b> - Presenting the Southern Blob and its teleconnections	
4:48pm-4:58pm	<b>Ilze Pretorius</b> - Invasive pests travel vast distances along atmospheric coherent structures	<b>Ciaran Doolin</b> - Edward Kidson – Pioneer of Southern Hemisphere Meteorology	<b>Jessica Hargreaves</b> - Tropical Rainfall Belt Trends and Variability Across the Southeast Tropical Indian Ocean over the Instrumental Period	
5:00pm-5:10pm	<b>Graeme Smart</b> - A rolling log law for velocity profiles	Q&A	Q&A	
5:12pm-5:22pm	Q&A			

## Week 15-17 February 2022

Tuesday 15 February				
	MC: Kyle Clem			
10:15am-10:45am	Invited Speaker: René Garreaud (Universidad de Chile) - The central Chile Mega Drought: Is the future now?			
Session 13	<b>13A</b> <b>Drought combined</b> Chair: Ailie Gallant Co-Chair: René Darío Garreaud	<b>13B</b> <b>The Southern Ocean and Tropical Climate System: Variability, Change, and Linkage 1</b> Chair: Wenju Cai Co-Chair: Agus Santoso	<b>13C</b> <b>Regional climate variability and change over the Southern Hemisphere extratropics 1</b> Chair: Julia Mindlin Co-Chair: Nadia Testani	<b>13D</b> <b>Oceanographic processes and observations – general session 2</b> Chair: James Renwick Co-Chair: Harris Anderson
	10:45am-10:55am	<b>Guojian Wang</b> - Two-year consecutive concurrences of positive Indian Ocean Dipole and Central Pacific El Niño preconditioned the 2019/2020 Australian “black summer” bushfires	<b>John Fyfe</b> - Recent developments in the detection and attribution of changes in the Southern Ocean climate system	<b>Fernando Arizmendi</b> - Projections of extreme wind events in Uruguay: a weather regimes approach
10:57am-11:07am	<b>Ailie Gallant</b> - Changes in fronts and cyclones during seasonal-scale droughts		<b>Ghyslaine Bosch</b> - Impact of zonal and meridional atmospheric flow on climate extremes in the Southern Hemisphere	<b>Nicolas Bodnariuk</b> - On the modulation of shelf water exportation in the Southwestern Atlantic Ocean on interannual timescales: the role of oceanic Rossby waves and teleconnections
11:09am-11:19am	<b>Miguel Lovino</b> - Hotspots for flash drought occurrence in South America	<b>Xichen Li</b> - Antarctic and Southern Ocean Climate Changes and its Interaction with Lower Latitudes	<b>Chiara Holgate</b> - Linking Tasman Sea high-pressure systems and extreme rainfall in southeast Australia	<b>Douglas Vieira Da Silva</b> - Interactions of ITCZ Disturbances with Waters of Amazon Shelf: Drivers of Air-Sea Fluxes along a Large Riverine Outflow
11:21am-11:31am	<b>Tess Parker</b> - The role of heavy rainfall in drought development and recovery from drought in Australia		<b>Ines Leyba</b> - Relationship between sea surface temperature variability in the South Atlantic and regional climate variability in southern South America	<b>Madelaine Gamble Rosevear</b> - Mixing at the seabed: characterising the bottom mixing-layer in a stratified, tidal flow using large-eddy simulation
11:33am-11:43am	<b>Tercio Ambrizzi</b> - Severe drought in central South America and its associated teleconnections: insights from modelling and observations	<b>Matthew England</b> - Tropical to high-latitude climate teleconnections via planetary waves in the ocean and atmosphere	<b>Eun-pa Lim</b> - Why was Australia not wet in Spring 2020 despite La Niña?	<b>William Edge</b> - Sediment transport by internal waves and estimation of unobserved parameters with uncertainty
11:45am-11:55am	<b>Marcia T.Zilli</b> - Real-time tool to monitoring the occurrence of tropical-extratropical cloud band events over the Southern Hemisphere		<b>Danielle Udy</b> - How does salty snowfall in Antarctica help us understand Australian rainfall processes?	<b>Chris Whitwell</b> - The contribution of shoaling and breaking non-linear internal waves to ocean mixing on the Australian Northwest Shelf

11:57am-12:07pm	Q&A	<b>Ariaan Purich</b> - Projected impacts of Antarctic meltwater anomalies over the 21st Century	Q&A	<b>Peter Baines</b> - Massed strandings of whales and dolphins – effects of wind, waves, and tides
12:09am-12:19pm		Q&A		Q&A
12:20pm-1.00pm	Lunch Break			
Session 14	<b>14A</b>	<b>14B</b>	<b>14C</b>	<b>14D</b>
	<b>The Southern Ocean and Tropical Climate System: Variability, Change, and Linkage 2</b> Chair: Xuebin Zhang Co-Chair: Guojian Wang	<b>Regional climate variability and change over the Southern Hemisphere extratropics 2</b> Chair: Julia Mindlin Co-Chair: Nadia Testani	<b>Climate and climate change - general Session 3</b> Chair: Daniel Kingston Co-Chair: Beatriz Reboredo	<b>Modelling and prediction - general session 3</b> Chair: Luke Sutherland-Stacey Co-Chair: Stephy Libera
1:00pm-1:10pm	<b>Wenju Cai</b> - Changing El Niño–Southern Oscillation in a warming climate	<b>Matt Patterson</b> - Tropical and subtropical forcing of future southern hemisphere stationary wave changes	<b>Wenhui - Zhao</b> A climatology of clouds over the Great Barrier Reef and the role of local forcing	<b>Willem Landman</b> - Attributes of predicted rainfall patterns over Southern Africa and Southeast South America associated with the El Niño–Southern Oscillation
1:12pm-1:22pm	<b>Shayne McGregor</b> - Distinct off-equatorial zonal wind stress and oceanic responses for EP and CP type ENSO events	<b>James Risbey</b> - The identification of long-lived Southern Hemisphere flow events	<b>Peter May</b> - Seasonal, diurnal variability and trends of near surface temperature and humidity in the maritime continent	<b>Benjamin Cash</b> - Cape Town Winter Rainfall Predictability
1:24pm-1:34pm	<b>Beatriz Peña-molino</b> - Revisiting the seasonal cycle of the Timor Throughflow: circulation and transport	<b>Vanesa Pántano</b> - Extreme rainfall frequency driven by different remote forcings over South-eastern South America	<b>Abdullah al Fahad</b> - The Influence of Direct Radiative Forcing Versus Indirect Sea Surface Temperature Warming on Southern Hemisphere Subtropical Anticyclones Under Global Warming	<b>Erma Yulihastin</b> - Convective Cold Pool Associated with Offshore Propagation of Convection System over the East Coast of Southern Sumatra, Indonesia
1:36pm-1:46pm	<b>Michael Eabry</b> - The impact of Indonesian Throughflow constrictions on eastern Pacific upwelling and water-mass transformation	<b>Camila Prudente</b> - Climate variability in the Paraguay Basin	<b>David Ferreira</b> - Direct evidence for a 20th Century decline in Southern Ocean Sea ice	<b>Vateanui Sansine</b> - Hybrid model for mean hourly solar irradiance prediction for micro-grid optimization
1:48pm-1:58pm	<b>Ming Feng</b> - Predictability of sea surface temperature anomalies off Sumatra-Java in the eastern Indian Ocean	<b>Tobias Sauter</b> - Revisiting extreme precipitation amounts over southern South America and implications for the Patagonian Icefields	<b>Cindy Liles</b> - Impacts of climate variability and change on the timing of budburst across Australian wine regions	Q&A
2.00pm-2.10pm	<b>Kewei Lyu</b> - Projected Ocean warming constrained by the ocean observational record	Q&A	Q&A	
2.10pm-2.20pm	Q&A			

2:20pm

Session Concludes

## Wednesday 16 February

MC: Beatriz Reboredo

10:15am-10:45am **Invited Speaker: Carolina Vera (CIMA/University of Buenos Aires -CONICET)** - Climate Knowledge Co-production for the Agriculture Sector in Argentina

Session 15	15A	15B	15C	15D
	<b>Weather and extreme events 2</b> Chair: Daniel Kingston Co-Chair: Beatriz Reboredo	<b>Climate Change in Pacific Island Countries 1</b> Chair: Salesa Nihmei Co-Chair: Christophe Menkes	<b>Governance, policy and public engagement, AND Advances in the application of climate forecasts in industry</b> Chair: Carly Tozer Co-Chair: James Risbey	<b>Tropical climate variability: dynamics, teleconnections, and impacts 1</b> Chair: Andrea Taschetto Co-Chair: Dietmar Dommenges
10:45am-10:55am	<b>Chris Vagasky</b> - Wildfires, Volcanoes, Cyclones, oh my! Non-traditional uses of Lightning Data	<b>Zhi-Weng Chua</b> - Improved monitoring of climate extremes in the western Pacific using remote sensing data	<b>David Jones</b> - A new national approach to assist Australian's build resilience to climate hazards	<b>Yann Planton</b> - The internal variability of ENSO in CMIP6 models
10:57am-11:07am	<b>Tony Bannister</b> - Are convergence lines associated with high asthma presentation days? A case-control study in Melbourne, Australia	<b>Cyril Duteil</b> - Fine-scale rainfall over New Caledonia under climate change	<b>Bruce Buckley</b> - Climate Change & Extremes – Climate Data needs of New Zealand's Largest Insurer	
11:09am-11:19am	<b>Keitapu Maamaatuaiahutapu &amp; Victoire Laurent</b> - How climate change may impact extreme swell events in French Polynesia in 2050?	<b>Laxmikant Dhage</b> - Assessment of 21st century changing sea surface temperature, rainfall, and sea surface height patterns in the tropical Pacific Islands using CMIP6 greenhouse warming projections	<b>Carly Tozer</b> - Challenges and learnings in the application of multi-year forecasts in hydropower operations	<b>Ruby Lieber</b> - Investigating the relationship between ENSO and extremes in the 20th Century Reanalysis
11:21am-11:31am	<b>Savin Chand</b> - Objective reconstruction of long-term tropical cyclone proxy records from reanalysis data set for climate trend analysis	<b>Michael Grose</b> - Historical warming and projections for global warming levels for Pacific nations	<b>Elisabeth Vogel</b> - Applications of seasonal hydrological forecasts in the agricultural sector	<b>Chiara Holgate</b> - Interacting climate modes impact east Australian rainfall moisture sources
11:33am-11:43am	Q&A	<b>Serena Lee</b> - Investigating how sea level rise alters circulation in island coastal waters– Numerical experiments focussed on the Vanuatu and New Caledonia region	Q&A	<b>Mandy Freund</b> - Australian rainfall and drought breaking conditions and its representation in ACCESS-S2



11:45am-11:55am		<b>Julian O'Grady</b> - Extreme Water Levels in Mixed Wind Climates in the Pacific		<b>Hanna Heidemann</b> - The role of the IPO and ENSO in Australian monsoon variability
11:57am-12:07pm		Q&A		<b>Zoe Gillett</b> - The development of the Pacific-South American teleconnection pattern during austral winter
12:09pm-12.19pm				Q&A
12:20pm-1.00pm	Lunch Break			
Session 16	<b>16A</b>	<b>16B</b>	<b>16C</b>	<b>16D</b>
	<b>Atmospheric processes and observations - general session 2</b> Chair: Beatriz Reboredo Co-Chair: Sylvia Nichol	<b>Climate Change in Pacific Island Countries 2</b> Chair: Scott Power Co-Chair: Geoff Gooley	<b>Tropical Cyclones</b> Chair: Clair Stark Co-Chair: Liz Ritchie Tyo	<b>Tropical climate variability: dynamics, teleconnections, and impacts 2</b> Chair: Agus Santoso Co-Chair: Shayne McGregor
1:00pm-1.10pm	<b>Donald Nkabinde</b> - A Direct Link Between Rossby Wave Breaking and Heavy Rainfall over South Africa	<b>Hamish Ramsay</b> - Tropical cyclone risk in the Vanuatu region	<b>Clair Stark</b> - The change in ocean heat due to tropical cyclones	<b>Nicola Maher</b> - Modulation of ENSO Teleconnections over North America by Pacific Decadal Variability
1:12pm-1.22pm	<b>Tsholanang Rammopo</b> - Investigating Rossby wave packets over South Africa	<b>Yuji Masutomi</b> - AP-PLAT: Asia-Pacific Climate Change Adaptation Information Platform	<b>Elizabeth Ritchie</b> - Investigation of the atmospheric environments associated with TC size changes	
1:24pm-1.34pm	<b>Thando Ndarana</b> - The dynamics associated with two types of ridging South Atlantic Ocean anticyclones over South Africa	<b>Leanne Webb</b> - Pacific Island case studies demonstrate how climate change projections can be applied to assist sectoral adaptation planning	<b>Stuart Moore</b> - Moving Earth (not heaven): A novel approach to tropical cyclone impact modelling	<b>Andrew Marshall</b> - MJO impacts on Australian climate extremes
1:36pm-1.46pm	<b>Kevin Ohneiser</b> - Long-term lidar measurements of Australian wildfire smoke layer in the stratosphere over southern South America in 2020-2021: Potential influence on ozone reduction?	<b>Neil Holbrook</b> - Impacts of marine heatwaves on tropical western and central Pacific Island nations and their communities	<b>Ian Smith</b> - Quantifying the role of friction in the dissipation of tropical cyclones	<b>Fadhil Rizki Muhammad</b> - The Influence of Cross-Equatorial Surge on Extreme Rainfall in Jakarta
1:48pm-1.58pm	<b>Erin Dunne</b> - Measurements of air-sea fluxes of biogenic and oxygenated organic gases in the South-West Pacific using novel ship-born mesocosm studies	<b>Hannah Barrowman</b> - Managing the impacts of climate change on root crop production and value chains in the Pacific: Lessons from Fiji	<b>Ivan Kennedy</b> - Vortical action and entropy: a mechanistic hypothesis for the power of tropical cyclones driven by the latent heat of condensation of water	<b>Claire Vincent</b> - Feedbacks between clouds, moisture, radiative forcing and diurnal convection: Observations and idealised modelling

2.00pm-2.10pm	<b>Calum Knight</b> - Cloud microphysical processes above Southern Ocean Sea ice and coastal Antarctica	<b>Jessica Lees</b> - Finding alignment between disaster risk reduction and climate change adaptation: community perceptions, practice and policy in the Pacific	<b>Hongyan Zhu</b> - On the dynamics of the December 2020 medicane	<b>Georgina Falster</b> - Multi-method, multi-proxy reconstructions of the Pacific Walker Circulation over the past 800 years
2.12pm-2.22pm	<b>James Tamhane</b> - Holocene dynamics of the Southern Hemisphere westerly winds: A depositional dust record from the Falkland Islands (Islas Malvinas)	<b>Savin Chand</b> - Tropical cyclones in the Pacific and global warming: An overview	<b>Joanna Aldridge</b> - A Comprehensive Tropical Cyclone Hazard and Risk Assessment Verification Framework	<b>Nerilie Abram</b> - Tropical Ocean responses to large volcanic eruptions during the last millennium
2.24pm-2.34pm	Q&A	Q&A	<b>Craig Arthur</b> - The TC SST - enabling access to tropical cyclone impact information	<b>Tomoki Tozuka</b> - Contribution of the oceanic teleconnection to amplitude asymmetry of the Ningaloo Niño/Niña
2.36pm-2.46pm			<b>Ralph Trancoso</b> - Tropical Cyclone Hazard Dashboard (TC-): a new web application informing the current and future wind hazard over Queensland	<b>Nandini Ramesh</b> - The Impacts of Eastern Boundary Upwelling on the Tropical Atmosphere
2.48pm-2.58pm			Q&A	Q&A
3:00pm	<b>Session Concludes</b>			

<b>Thursday 17 February</b>				
MC: James Renwick				
10:15am-10:45am	<b>Invited Speaker: Julie Arblaster (Monash University)</b> - Tropical to polar interactions in the Southern Hemisphere			
Session 17	<b>17A</b>	<b>17B</b>	<b>17C</b>	<b>17D</b>
	<b>Severe Thunderstorms in the Southern Hemisphere 1</b> Chair: Rob Warren Co-Chair: Joshua Soderholm	<b>Changes in atmospheric circulation and Southern Hemisphere regional climate 1</b> Chair: Julie Arblaster Co-Chair: Ghyslaine Boschat	<b>Renewable energy nexus with weather and climate</b> Chair: Roger Dargaville Co-Chair: Merlinde Kay	<b>Tropical climate variability: dynamics, teleconnections, and impacts 3</b> Chair: Shayne McGregor Co-Chair: Andrea Taschetto
10:45am-10:55am	<b>Ross Blamey</b> - Mesoscale convective systems in eastern South Africa and their importance in the local hydrological cycle	<b>Roseanna McKay</b> - Review of large-scale drivers influencing Australia's rainfall changes in different season	<b>Abhnil Prasad</b> - Reduction in solar energy due to soiling from dust in Australia	<b>Cyril Dutheil</b> - The western Pacific rainfall response to climate change: Sensitivity to projected Sea Surface Temperature patterns

10:57am-11:07am	<b>Christina Liesker</b> - Characteristics of left-moving supercell thunderstorms over the Highveld of South Africa	<b>Andrew King</b> - Trends and emergence in Australian extreme rainfall across timescales	<b>Marania Hopuare</b> - Investigating wind energy potential in Tahiti, French Polynesia	<b>Cristian Martinez-Villalobos</b> - Two types of Coastal El Niño events
11:09am-11:19am	<b>Kellie Cook</b> - A convective hailstorm climatology and associated environments for Sydney, Australia	<b>Acacia Pepler</b> - Changing characteristics of frontal rainfall affecting southern Australia	<b>Christopher Lennard</b> - Mesoscale modelling in the development of the Wind Atlas for South Africa	<b>Dietmar Dommenges</b> - Asymmetries in the El Niño Southern Oscillation Phase Space Diagram
11:21am-11:31am	<b>Timothy Raupach</b> - Hail proxy reliability across Australia	<b>Pandora Hope</b> - The impact of natural and anthropogenic forcing on the rainfall decline in south west Australia	<b>Claire Vincent</b> - Nocturnal Boundary Layer effects in SE Australia: Implications for wind energy production	<b>Annette Stellema</b> - Projected changes of Pacific Equatorial Undercurrent sources and pathways
11:33am-11:43am	<b>Andrew Brown</b> - Modes of severe thunderstorm wind occurrences in southeast Australia	<b>Irina Rudeva</b> - Trends in the mean meridional atmospheric circulation in the Southern Hemisphere: connecting short-term variability with long-term trends	<b>Rachael Quill</b> - A robust automated quality-control engine to improve forecasting wind generation	<b>Agus Santoso</b> - Indonesian Throughflow Variability and Linkage to ENSO and IOD in an Ensemble of CMIP5 Models
11:45am-11:55am	Q&A	<b>Eun-pa Lim</b> - The 2019 Southern Hemisphere Stratospheric Polar Vortex Weakening and Its Impacts	Q&A	<b>Yi Huang</b> - Synoptic and Dynamical Characteristics during the Coral Bleaching Events over the Great Barrier Reef
11:57am-12:07pm		<b>Gareth Marshall</b> - Can current reanalyses accurately portray changes in Southern Annular Mode structure prior to 1979?		<b>Zeya Li</b> - ENSO modulation of sea surface temperatures off Australia's west and southeast coasts
12:09pm-12:19pm		<b>Ryan Fogt</b> - Extratropical Southern Hemisphere Synchronous Pressure Variability in the Early 20th Century		<b>Liesl Dyson</b> - Africanés in southern Africa: a significant rain bearing, tropical cyclone like synoptic scale low pressure system
12:20pm-12:30pm		Q&A		Q&A
12:30pm-1:00pm	Lunch Break			
Session 18	<b>18A</b>	<b>18B</b>	<b>18C</b>	<b>18D</b>
	<b>Severe Thunderstorms in the Southern Hemisphere 2</b> Chair: Rob Warren Co-Chair: Joshua Soderholm	<b>Changes in atmospheric circulation and Southern Hemisphere regional climate 2</b> Chair: Julie Arblaster Co-Chair: Marilyn Raphael	<b>Understanding compound events and multivariate risk</b> Chair: Nina Nadine Ridder Co-Chair: Valentina Koschatzky	<b>Tropical climate variability: dynamics, teleconnections, and impacts 4</b> Chair: Dietmar Dommenges Co-Chair: Andrea Taschetto
1:00pm-1:10pm	<b>Annabel Bowden</b> - The association between elevated mixed layers and severe thunderstorm environments in eastern Australia	<b>Elio Campitelli</b> - Recent trends in symmetric and asymmetric components of the Southern Annular Mode	<b>Kate Saunders</b> - Statistical post-processing of compound event forecasts	<b>Wenju Cai</b> - Opposite response of strong and moderate positive Indian Ocean Dipole SST variability to global warming

1:12pm-1:22pm	<b>Joshua Soderholm</b> - Measuring Hailstone Trajectories with the HailSonde	<b>Rishav Goyal</b> - A new zonal wave 3 index for the Southern Hemisphere	<b>Kathryn Allen</b> - How unusual are recent tree dieback events associated with compound extremes? Can palaeoclimate records help with answers?	
1:24pm-1:34pm	<b>Stacey Hitchcock</b> - Two Quasi-Linear Convective Systems, their mesoscale structure and moisture sources	<b>Anderson Augusto Bier</b> - Changes in the South Atlantic Dipole and impacts on South America	<b>Charuni Pathmeswaran</b> - Exploring potential links between co-occurring coastal terrestrial and marine heatwaves in Australia	<b>Scott Power</b> - Climate change and decadal climate variability in the tropical Pacific: A Review
1:36pm-1:46pm	<b>Matthew Mason</b> - Assessing the boundary layer winds within thunderstorm outflows	<b>Julia Mindlin</b> - Combined Effects of Global Warming and Ozone Depletion/Recovery on Southern Hemisphere Atmospheric Circulation and Regional Precipitation	<b>Kimberley Reid</b> - Impacts and Structure of Atmospheric Rivers over Australia	<b>Peter Van Rensch</b> - Atmosphere model deficiencies in simulating decadal-scale strengthening of tropical Pacific winds
1:48pm-1:58pm	<b>Salomé Hussein</b> - Modelling Convective Storm Attributes in Australia using Radar, Reanalysis, and Deep Learning	<b>Fraser Dennison</b> - The regional climate impact of ozone depletion and recovery in the CCM1-2022 model set	<b>Nina Nadine - Ridder</b> High Impact Compound Events in Australia	<b>Chen-Shuo Fan</b> - Conceptual understanding of how large-scale tropical circulation change under global warming
2:00pm-2:10pm	<b>Harald Richter</b> - New convective guidance at the Australian Bureau of Meteorology	<b>Luciana Prado</b> - Southern Annular Mode characterization in the Brazilian Earth System Model (BESM)	<b>Doug Richardson</b> - Global increase in wildfire potential from compound fire weather and drought	<b>Rajashree Naha</b> - Exploring the symmetry of pan-tropical connections of the Atlantic on the Tropical Pacific
2:12pm-2:22pm	<b>Natasha Jacobson-Ellie</b> - Evaluation of ACCESS City Ensemble (CE3) skill in predicting large hail using Updraft Helicity (UH) in two severe hailstorms in eastern Australia	<b>Sarah Jackson</b> - Climatic Controls on Precipitation in East Antarctica and the Impacts on an Ice Core Stable Water Isotopes Record	<b>Cassandra Rogers</b> -Recent increases in exposure to extreme humid-heat events disproportionately affect populated regions	<b>Daohua (Dave) Bi</b> - Improved tropical Pacific-Atlantic teleconnection in a pacemaker experiment
2:24pm-2:34pm	Q&A	Q&A	Q&A	Q&A
2:35pm-3:00pm	<b>Closing Session</b> MC: Luke Sutherland-Stacey			

## Poster Presentations

All poster presentations will be available on the virtual platform.

Poster Title	Presenter
Cut-off low over the southeastern Pacific Ocean: a case study	Vannia Aliaga Nestares
Impact of millennial-scale climate change on biological and physical processes of the South West Pacific	Harris Anderson
The Combined Influence of ENSO and IOD on South American climate during Austral Spring	Luciano Andrian
The world's longest known parallel temperature dataset: a comparison between daily Glaisher and Stevenson Screen temperature data at Adelaide, Australia, 1887–1947	Linden Ashcroft
Cirrus cloud characteristics at the southern-hemispheric midlatitude site of Punta Arenas (53°S, 71°W)	Boris Barja
Projections of future marine heatwaves for the oceans around New Zealand and Australia using New Zealand's Earth System Model	Erik Behrens
The Interhemispheric Rossby Wave propagation during South Atlantic Convergence Zone episode in January 2009	Hugo Braga
The Teleconnection between South Pacific Convergence Zone and South Atlantic Convergence Zone during La Niña Years	Hugo Braga
Observing System Experiments with AMPS-Polar WRF During the YOPP-SH Summer Special Observing Period	David Bromwich
The potential of Self Organizing Maps as a tool to improve seasonal prediction in Brazil	Paola Bueno
Dynamics of Ross Ice Shelf Polynya during Winter and Spring from Sentinel-1 SAR Data	Girija Kalyani Burada
Comparative studies between acoustic observations of frazil ice and modelling of frazil ice in ice shelf water	Nina Caldarella
The impacts of the Pacific-South American modes in mid-latitudes climate are highly sensitive to the location of tropical SST anomalies	Elio Campitelli
Diurnal, seasonal, inter-annual variations and trends of surface Ozone at the Cape Point Global Atmospheric Watch (GAW) Station, South Africa	Sylvester Chaisamba
A Data Driven Approach to MJO Detection and Forecasting using Dynamic Mode Decomposition	Christopher Chapman
The role of the Tropical Atlantic on modulating Tropical Pacific variability	Christine Chung
Large-scale forcing of regional atmospheric circulation patterns driving extreme Foehn warming in the McMurdo Dry Valleys	Kyle Clem
Evaluation of CMIP6 models in the representation of observed extreme temperature indices trends in South America	Soledad Collazo
Characteristic mesoscale ocean circulation offshore of the Kaikōura submarine canyon, New Zealand, associated with synoptic weather patterns	Phellipe Couto
Microstructural processes governing the behaviour of basal marine shelf ice	Lisa Crow
Extreme winds and waves over the southwestern South Atlantic in a regional downscaling	Natalia Crespo
Comparing single and multi-layered low-level cloud regimes and evaluation of liquid spatial inhomogeneity over the Southern Ocean using in situ observations from SOCRATES	John D'Alessandro
Multi-scale rainfall extremes in Northeastern Australia	Thi Lan Dao
Projected Changes and Time of Emergence in Temperature Extremes over Australian regions	Xu Deng
High-resolution Quantile-Quantile scaled climate scenario projections for Australia	Raktima Dey

Induced wave setup in narrow lagoons: Application to Poé beach (New Caledonia)	Maxime Duphil
Influence of the Southamerican Low-Level Jet (SALLJ) on precipitation over the Southern Peruvian Highlands (SPH) during summertime: Part 2	Cristian Febre
Potential heat gateways into the Ross Sea from profiling floats and model simulations	Denise Fernandez
Examining 50 years of ecological relevant Southern Ocean variables using a high-resolution model	Denisse Fierro Arcos
Analysis of an 18 year record of circum-Antarctic fast ice distribution: extent, trends and climate consequences	Alexander Fraser
Investigating tropical vs. extratropical influences on the Southern Hemisphere tropical edge in the Unified Model and CMIP6	Pia Freisen
Evaluation of the wind and wave measurements of the CFOSAT satellite mission in the Southeast Pacific region	Alexandra Fuenzalida-Artigas
Improving ocean forecasts through data assimilation in the northeast shelf of New Zealand	Carine G. R. Costa
Pacific Ocean Pathways in support of sustainable development: an integrated approach	Alexandre Ganachaud
The impact of the semipermanent anticyclones in the Atlantic and Pacific Oceans over air temperature and precipitation in Argentina	Eugenia Garbarini
Response of Southern Hemisphere western boundary current regions to future zonally symmetric and asymmetric atmospheric changes	Rishav Goyal
Why is the Southern Hemisphere extratropical atmospheric circulation not zonally symmetric?	Rishav Goyal
Climate scenarios of mean climate change for 2050 in the Pacific using storylines	Michael Grose
Climate extremes recorded in playa lakes across continental Australia over the last Millenia	Sophie Grunau
Deoxygenation of the Australian Antarctic Basin Driven by Freshening in the Ross Sea	Kathryn Gunn
Detection of supercooled liquid water and aircraft icing potential at Davis, Antarctica	Adrien Guyot
Comparing Air Quality in Auckland during COVID lockdown and Level 1 conditions	Jamie Halla
Hyperspectral Imaging as a Tool for Shallow Water Bathymetry	Jamie Halla
Searching for traces of Heard Island volcanism in the Mount Brown South ice core, East Antarctica	Margaret Harlan
Increased early summer drought risk in southern subtropics due to decline in tropical-extratropical cloud bands	Neil Hart
Climate change projections to inform vulnerability of black pearl production in the Cook Islands	Vanessa Hernaman
Ocean heat supply to the Denman Glacier: insights from observations and models	Laura Herraiz Borreguero
Lidar Observations of SpatioTEmporal Contrasts in Clouds and Aerosols (LOSTECCA) in Lauder, New Zealand	Julian Hofer
Intercomparison of High-Resolution SST Climatologies Over the Australian Region	Yuwei Hu
Novel equilibrated ocean-sea ice model simulations improve recent Southern Ocean warming estimates	Maurice Huguenin
Upcoming investigations of aerosol-cloud-radiation-precipitation processes in the Southern Ocean	Ruhi Humphries
The influence of SAM and ENSO on extreme rainfall over South America	Maria Florencia Iacovone
Air Quality Impacts during the 2019-2020 Bushfires on Rooftop Photovoltaic Systems in NSW	Alejandra Isaza
NARClIM2.0: design of a high-resolution regional climate modelling ensemble for Australia	Fei Ji
Combined roles of the Quasi-biennial oscillation and Madden-Julian oscillation on extreme rainfall in Australia	Xiaoxuan Jiang

Variable dependency in bias-corrected regional climate models	Youngil Kim
Do flash droughts occur in Aotearoa New Zealand?	Daniel Kingston
Antarctic sea ice biases and parameter sensitivities in the ACCESS-OM2 ocean-sea ice model suite	Andrew Kiss
Marine ecoregions and their sensitivity to past and future climate change	Mario Krapp
Evaluating the ACCESS model against Southern Ocean aerosol observations	Liam Lamprey
The diurnal cycle of rainfall and cloud properties from Himawari-8 and IMERG during the austral summer (2016-2020)	Clemente Lopez-bravo
Accounting for the latitudinal variability of rainfall in dual-polarization radar rainfall retrievals	Valentin Louf
Impact of the TUTT on lightning in French Polynesia	Keitapu Maamaatuaiahutapu
Relation between chemical characteristics of aerosols and the transport of air masses in Magellan region during 2019	Gonzalo Mansilla
PARASO, a circum-Antarctic fully-coupled ice-sheet - ocean -sea-ice - atmosphere - land model involving f.ETISH1.7, NEMO3.6,LIM3.6, COSMO5.0 and CLM4.5	Pierre-Vincent Huot
Precipitation extremes over the Southern Hemisphere: The Importance of Extra-tropical cyclones	Cameron McErlich
Impact of mean state biases on Indian Ocean variability	Sebastian McKenna
Pacific climate, local knowledge and adaptation strategies (clipssa)	Christophe Menkes
MethaneSAT: Towards detecting agricultural emissions from space	Sara Mikaloff-fletcher
Analysis of an Extreme precipitation event associated with a sub-Antarctic mesocyclone and Atmospheric River during CAPRICORN 2018	Estefania Montoya Duque
Obtaining improved ToF-ACSM calibrations to better characterise aerosol measurements in pristine, marine atmospheres	Caleb Mynard
Observing upper ocean variability during storms: connecting event scales to climate responses	Joe O'Callaghan
Identifying critical periods with low rainfall that impact wheat yields in Argentina, in order to minimize risks	Vanesa Pántano
Compound high-impact weather in Australia - A dynamical perspective	Tess Parker
Predictability of Long-lived of Rossby Wave Packets during Southern Hemisphere Summer	Iago Perez
How are the ENSO effect on Cut-off Lows simulated in CMIP6 in AMIP and coupled model simulations?	Henri Pinheiro
Characterization of solar power ramps over multiple timescales	Shukla Poddar
Assessment of the Diurnal Cycle of Convection over the Maritime Continent using Multiple Datasets	Abhnil Prasad
Analysis and modelling of spring frost at vineyard scale in the Waipara Region, Canterbury, New Zealand	Herve Quenol
Simplified atmospheric climate models as a tool for describing circulation changes linked to variations in stratospheric ozone and greenhouse gases	Gabriela Raggio
How well do CMIP6 models represent the sub-tropical ridge (STR) in the Southern Hemisphere?	Surendra Rauniyar
South American Monsoon Features Projected to the End of 21st Century	Michelle Reboita
Influence of ozone forcing on 21st century Southern Hemisphere surface westerlies in CMIP6 models	Fergus Robertson
Key drivers and characteristics of the 2009-10 marine heatwaves in the Atlantic	Claire Rocuet

Disentangling the causes of evapotranspiration long-term changes in southeastern South America	Romina Ruscica
Contrasting the response of tropical Pacific climate to multi-decadal variability sourced in the North Atlantic and Southern Ocean	Agus Santoso
Topographic effects on the atmospheric boundary layer of alpine glaciers	Tobias Sauter
Continuous Observations of Aerosol-cloud interaction in Antarctica (COALA): An upcoming dataset on the vertical distribution of aerosol and clouds over Neumayer III station	Patric Seifert
Antarctic marginal sea ice zone in global ocean reanalyses	Julia Selivanova
Probabilistic Assessment of Coastal Inundation in the Pacific	Bengtson Shannon
Linked Future Climate Impacts for New Zealand from Heat Waves, Droughts and Fire Potential	Abha Sood
Future Renewable Energy Resource Assessment and Impact of Climate Extremes in Regional Climate Projections	Abha Sood
Trend analysis on frequency of New Zealand climate extremes	Raghav Srinivasan
The effect of experiment conditioning on estimates of human influence on extreme weather	Dáithí Stone
The social psychological attribution of event attribution	Dáithí Stone
BARPA: Development of ACCESS-based high-resolution regional climate projections over Australia	Chun-hsu Su
Spatial variability of annual net community production in the Southern Ocean revealed by BGC-Argo floats	Jiaoyang Su
Energy propagation between the subtropics and the Antarctic Circumpolar Current	Kayo Takahashi
A new system to measure carbonyl sulfide in air samples as tracer for gross primary production	Kararaina Te Puni
Changes in cloud amount over South America	Nadia Testani
Investigating climate impacts from Antarctic freshwater fluxes using HadGEM3-GC3.1	Max Thomas
Rainfall projections over Uruguay with CMIP6 models by statistical downscaling	Romina Trinchin
Diagnosing changes in Southern Ocean Overturning Circulation from Atmospheric Radiocarbon Observations	Jocelyn Turnbull
Investigation of dynamical dependence between observables based on the rate of information flow	Stephane Vannitsem
Investigating the benefits of multi-season flow reconstructions for continuous water balance modelling	Danielle Verdon-Kidd
Heat flux and water mass variability along a Polar Front meander south of Australia	Felipe Vilela-Silva
Evaluating dynamical downscaling and bias correction for hydrological impact assessments	Elisabeth Vogel
Calibrated Thunder: Verification and Future Developments	Rob Warren
University of Wisconsin Automatic Weather Station Network	Lee Welhouse
The Southern Ocean Observing System: Supporting the international community with networks and tools	Mike Williams
Estimation of Primary Production in Antarctic Land-fast Sea Ice during 2005-2006	Pat Wongpan
Evaluation of Cloud Characteristics in Three Climate Models using Airborne Observations over the Southern Ocean	Ching An Yang
Vertical resolution requirements in wind profile simulations associated with inertia-gravity waves	Yang Yang



Towards an operational nowcasting framework of turbulence using Large Eddy Simulations	Jiawei Zhang
Identifying atmospheric processes favouring the formation of physical features in the Mount Brown South ice core	Lingwei Zhang