

AUSTRALIAN ANTARCTIC RESEARCH CONFERENCE

Connecting Australia's polar research community in a rapidly changing world

Hobart, Tasmania • Tuesday 19 – Friday 22 November 2024

• Early Career Researchers (ECR) Day – Monday 18th November

EARLY CAREER RESEARCHERS (ECR) DAY HOBART FUNCTION AND CONFERENCE CENTRE

MONDAY 18 NOVEMBER 2024		1 Elizabeth Street Pier, Hobart
0900 - 0930	Registration and morning refreshments	Hobart Function and Conference Centre (HFCC)
0930 - 1030	Careers Beyond Academia Panel Panel: Nicole Webster (IMAS,UTAS), Robert Johnson (BOM), Ben Arthur (CSIRO), Stephanie Downes (Deloitte), Mary O'Kane (O'Kane & Associates)	HFCC
1030 - 1100	The Art of Job Interviews Presented by Helen Bostock Lyman (UQ) followed by individual mock interviews (20 minutes each) from 11:00-13:00 at IMAS. Sign up for an interview here: https://airtable.com/app9EWPQsXudDEv5F/shrTY3m3xll0FGuqg . Spots are limited, so be sure to sign up early! <i>(IMAS - 20 Castray Esplanade, Battery Point)</i>	HFCC Interviews - IMAS meeting rooms 220, 222, 225, 316, 332
1100 - 1120	Morning Refreshments	HFCC
1120 - 1220	An Introduction to Graphic Design for Science Presented by Stacey McCormack (Visual Knowledge). Ever been asked to do a graphical abstract for a paper and did not know where to start? Working on a conference poster and it just isn't looking right? Come join us for an introductory session that will cover: <ul style="list-style-type: none"> •Improving the readability of visuals using graphic design principles 	HFCC

	<ul style="list-style-type: none"> •Symbolism and visual cues •The dos and don'ts of visualisation 	
1220 - 1330	Lunch	HFCC
1330 - 1515	<p>Quantitative Skill Development Workshop: Finding Structure in High-Dimensional Data: A Workshop on Dimensionality Reduction Techniques</p> <p>Presented by Professor Mike Bode (QUT), Ms Larissa Lubiana Botelho (SAEF QUT) and Dr Zach Carter (UAdelaide)</p> <p>Do you have a data table with more than three columns? I feel your pain – all fields of science have to deal with high-dimensional datasets. However, if you're lucky, all those dimensions are hiding a simpler understanding of your system. Come along and learn about old and new methods for squishing your data into fewer columns. Participants should bring their own computers to this workshop.</p>	HFCC
	<p>Communication Development Workshop</p> <p>Presented by Amelia Pearson (Monash Climate Change Communication Research Hub) and Anna Quinn (Securing Antarctica's Environmental Future)</p> <p>Communication training and discussion on the ECR-led community conference statement. Learn what makes a good statement, how to communicate effectively, and how the media works.</p>	HFCC
1515 - 1545	Afternoon Refreshments	HFCC
1545 - 1700	<p>Antarctic Policy Panel</p> <p>Panel: Ewan McIvor (AAD), Dr. Lynda Goldsworthy (IMAS,UTAS), Dr. Steve Parker (CCAMLR)</p> <p>Meet some of Australia's leading experts on Antarctic Policy and find out how ECRs can become involved in this field. Whether you would simply like to learn how you can make your science visible to policy makers, or you would like to learn about pathways for attending official meetings, join us and ask your own questions!</p>	HFCC
	Break - walk to Hobart Brewing Co.	
1730 - 2000	<p>Research & Refreshments - ECR Social Evening</p> <p>5-minute crash-course presentations from ECRs:</p> <p>Maria Constanza Manassero (UTas), Ryan North (UoW), Vaibhavi Dwivedi (UTas), Shradha Agarwal (UTas), Taimoor Sohail (UNSW), Hannah Dawson (UTas), Lavinia Drozdowski (UTas) and Kelly-Anne Lawler (ANU)</p> <p>Food and drink are provided for ECRs, others are welcome to join</p>	Hobart Brewing Co. 16 Evans St. Hobart

* **PRELIMINARY PROGRAM** (subject to change)

TUESDAY 19 NOVEMBER 2024 – AARC Day 1

0800 - 0830	Poster drop off	Registration desk (Stanley Burbury Foyer)
0815 - 0900	Registration opens	
0900 - 0910	Welcome to Country – Niara Mansell	Stanley Burbury Theatre
0910 - 0925	UTAS Vice-Chancellor Prof Rufus Black	Stanley Burbury Theatre
0925 - 0930	Video message from Her Excellency the Honourable Ms Sam Mostyn AC Governor-General of the Commonwealth of Australia	Stanley Burbury Theatre
0930 - 0935	Video message from Environment Minister Hon Tanya Plibersek MP	Stanley Burbury Theatre
0935 - 0950	Rhonda Bartley, Acting Branch Head – Science, Australian Antarctic Division	Stanley Burbury Theatre
0950 - 1005	Conference outlook: Prof Nathan Bindoff (background, expectations, housekeeping)	Stanley Burbury Theatre
1005 - 1015	Questions	Stanley Burbury Theatre
1015 - 1040	Morning refreshments	Stanley Burbury Foyer
ANTARCTICA IN A CHANGING CLIMATE AND EARTH SYSTEM		Chair: Steve Rintoul
1040 - 1050	The Antarctic Ice Sheet and sea level: contemporary changes and future projections Dr Benjamin Galton-Fenzi <i>Australian Antarctic Division</i>	Stanley Burbury Theatre
1050 - 1100	Investigating the Stability of the Denman Shackleton Ice Shelf System, East Antarctica Dr Sarah Thompson <i>AAPP</i>	Stanley Burbury Theatre
1100 - 1110	Antarctic Coastal Current regulates the melting of the Denman/Shackleton ice shelf Ms Yuhang Liu <i>IMAS</i>	Stanley Burbury Theatre
1110 - 1120	Questions and discussion	Stanley Burbury Theatre
1120 - 1130	Distinct Central and Eastern Pacific El Niño Influence on Antarctic Surface Mass Balance Mrs Jess Macha <i>Monash University</i>	Stanley Burbury Theatre
1130 - 1140	Impact of Climate Change-Induced Wind Intensification on Physiological Responses in Antarctic Vegetation Mr Yifan Wu <i>University of Wollongong</i>	Stanley Burbury Theatre
1140 - 1150	Antarctic krill vertical migration has a minor contribution to particulate organic carbon flux Dr Abigail Smith <i>Australian Antarctic Division</i>	Stanley Burbury Theatre

1150 - 1200	Questions and discussions				Stanley Burbury Theatre
1200 - 1225	Lightning Talks				Stanley Burbury Theatre
1225 - 1230	Walk to the Activities Centre				
1230 - 1330	Lunch and posters				Activities Centre
1330 - 1335	Walk to side events				
SIDE EVENTS					
	Activities Centre	Centenary Harvard 1	Stanley Burbury	G19 Classroom	Centenary Harvard 2
1335 - 1435	Session 1 POSTERS Group A presenting	Marine Carbon Dioxide Removal Prof Michael Ellwood Australian National University	Drones and Wildlife in Antarctica Dr Justine Shaw Securing Antarctic Environmental Future, QUT	Future directions for the Southern Ocean Marine Ecosystem Model Ensemble (SOMEME): A Collaborative Workshop Click here to register Dr Kieran Murphy IMAS	Australian initiatives for Antarctica InSync Dr Petra Heil AAD, AAPP & WSL
1435-1440	Walk to side events				
1440 - 1540	Session 1 POSTERS Group B presenting	GOA-ON/SOOS: Ocean Acidification Southern Ocean Regional Hub (OASO) Dr Katherina Petrou University of Technology Sydney	Exploring novel Antarctic research opportunities with sustainably fuelled drones Mr Liam Turner Monash University	Dialogue - Do you play a role in shaping a resilient Southern Ocean? Clément Delor Astruc Institute For Marine And Antarctic Studies / Institute Jean Nicod /French Ministry For Ecological Transition	Responding to rapid change and extreme events in Antarctica Dr Will Hobbs UTAS / IMAS
1540 –1615	Afternoon refreshments				Stanley Burbury Foyer
ANTARCTICA IN A CHANGING CLIMATE AND EARTH SYSTEM					Chair: Steve Rintoul
1615 – 1625	Observational estimates of net community production in Antarctic sea ice Ms. Laura Dalman IMAS				Stanley Burbury Theatre
1625 – 1635	West Antarctic melt variability and wind anomalies contribute to Ross Sea salinity rebound Ms Christina Schmidt UNSW				Stanley Burbury Theatre
1635 - 1645	Dense Shelf Water Outflow from Dibble Polynya, East Antarctica Dr Kaihe Yamazaki Institute for Marine and Antarctic Studies, University of Tasmania				Stanley Burbury Theatre

1645 - 1655	Questions and discussions	Stanley Burbury Theatre
1655 - 1705	Seasonal sea-ice and eddy variability around the Antarctic margin Ms Ellie Ong <i>University Of New South Wales</i>	Stanley Burbury Theatre
1705 - 1715	Where the MIZ really is: The first fine-scale climatology of the wave-affected Antarctic Marginal Ice Zone (MIZ) Dr Alexander Fraser <i>AAPP</i>	Stanley Burbury Theatre
1715 - 1725	Surf's up! Multiple roles of sea ice (loss) in Antarctic ice-shelf stability (instability) Dr Rob Massom <i>AAD</i>	Stanley Burbury Theatre
1725 - 1735	Questions and discussions	Stanley Burbury Theatre
1745 - 1845	Tas Polar Network Welcome Reception	Lazenby's Cafe

WEDNESDAY 20 NOVEMBER 2024 – AARC Day 2		
0810 - 0840	Registration opens (Sir Stanley Burbury Theatre, Sandy Bay TAS 7005)	Registration desk (Stanley Burbury Foyer)
THE HUMAN DIMENSION OF ANTARCTICA		Chair: Elle Leane
0840 - 0850	Beyond frozen boundaries: Collaborative research between STEM and HASS scholars A/Prof Daniela Liggett School of Earth and Environment, University of Canterbury, Christchurch, New Zealand	Stanley Burbury Theatre
0850 - 0900	Strengthening the CCAMLR decision-making process Dr Lynda Goldsworthy IMAS – UTAS	Stanley Burbury Theatre
0900 – 0910	Fishy Business: Assessing Compliance Among CCAMLR Listed Vessels Rhianna Hamilton University Of Adelaide	Stanley Burbury Theatre
0910 - 0920	Tik Tokking Antarctica: Exploring representations via social media Assoc Prof Anne Hardy UTAS	Stanley Burbury Theatre
0920 - 0930	Questions and discussions	Stanley Burbury Theatre
0930 - 0940	Situational awareness, risk and safety: Weather-related decision-making in Antarctic environments Ms Victoria Heinrich Bureau Of Meteorology / University of Tasmania	Stanley Burbury Theatre
0940 - 0950	Collaboration, Ambition, Diversity and Community – core values of Securing Antarctica’s Environmental Future program Dr Diana King University of Wollongong	Stanley Burbury Theatre
0950 - 1000	Collapse and recovery of consensus at the Antarctic Treaty Consultative Meetings Prof Michael Bode Queensland University Of Technology	Stanley Burbury Theatre
1000 - 1008	Questions and discussions	Stanley Burbury Theatre
1008 - 1010	Conference photo	Stanley Burbury Theatre

1010 - 1040	Morning refreshments				Stanley Burbury Foyer
1040 - 1050	Beyond the Barrier - shifting historical narratives of the Ross Ice Shelf Dr Joy McCann <i>UTAS</i>				Stanley Burbury Theatre
	Science-informed Negotiation as the Heart of The Antarctic Treaty System Jeffrey McGee <i>IMAS / UTAS</i>				Stanley Burbury Theatre
1050 - 1100	Creative Antarctica: Australian Artists and Writers in the Far South Dr Carolyn Philpott & Elizabeth Leane <i>UTAS</i>				Stanley Burbury Theatre
1100 - 1115	Questions and discussions				Stanley Burbury Theatre
1115 - 1125	First temporal record of atmospheric nuclear weapons testing fallout on a sub-Antarctic Island Dr Krystyna Saunders <i>Australian Nuclear Science and Technology Organisation</i>				Stanley Burbury Theatre
1125 - 1135	Exploiting Captain Robert Falcon Scott: Late 20th Century Dramatic Subversions of the Terra Nova Expedition Dr Carl Walling <i>University Of The Sunshine Coast</i>				Stanley Burbury Theatre
1135 – 1150	Questions and discussions				Stanley Burbury Theatre
1150 - 1220	Lightning Talks				Stanley Burbury Theatre
1220 - 1225	Walk to the Activities Centre				
1225-1325	Lunch and Posters				Activities Centre
1325 - 1330	Walk to side events				
SIDE EVENTS					
	Activities Centre	Centenary Harvard 1	Stanley Burbury	G19 Classroom	Centenary Harvard 2
1330 - 1430	Session 1 POSTERS <i>Group B presenting</i>	Application of isotopic tracers and nuclear techniques to research in the Antarctic region Dr Krystyna Saunders <i>Australian Nuclear Science and Technology Organisation</i>	Denman Marine Voyage – Science Activities Prof Delphine Lannuzel <i>UTAS</i>	Part A: Best practice communication: Translating Antarctic and Southern Ocean science Amelia Pearson <i>Monash Climate Change Communication Research Hub</i> Anna Quinn <i>SEAF</i>	Refloating research of the East Antarctic Marginal Ice Zone [MIZ] Dr Petra Heil <i>UTAS</i>

1430 - 1435	Walk to side events				
1435 - 1535	Session 1 POSTERS <i>Group A presenting</i>	Establishing an East Antarctic Long-Term Ecological Research (LTER) Dr Alyce Hancock <i>Southern Ocean Observing System</i>	Generating DNA reference material for monitoring Australian Antarctic area Dr Nerida Wilson <i>CSIRO, Crawley, Perth</i> Dr Jenny Giles <i>CSIRO</i>	Part B: Best practice communication: Translating Antarctic and Southern Ocean science Amelia Pearson <i>Monash Climate Change Communication Research Hub</i> Anna Quinn <i>SEAF</i>	Multidisciplinary Investigations of the Southern Ocean (MISO) Dr Annie Foppert <i>UTAS/AAPP</i>
1535 – 1610	Afternoon refreshments				Stanley Burbury Foyer
OTHER ANTARCTIC/SUB-ANTARCTIC/SOUTHERN OCEAN TOPICS					Chair: Nerilie Abram
1610 – 1620	Line of earthquakes offshore East Antarctica – a plate boundary jump in progress? Dr Katharina Hochmuth <i>UTAS</i>				Stanley Burbury Theatre
1620 - 1630	Resolving Antarctic Bottom Water pathways in Australian-Antarctic Basin Ms Polina Sholeninova <i>Australian National University</i>				Stanley Burbury Theatre
1630 - 1640	Wind-driven variability of modified Circumpolar Deep Water intrusions into Vincennes Bay, East Antarctica. Dr Natalia Riberio <i>Integrated Marine Observing System (IMOS)</i>				Stanley Burbury Theatre
1640 – 1650	FOCUS: Fine scale Observations in the antarctic circumpolar Current Under SWOT. Dr Benoit Legresy <i>CSIRO</i>				Stanley Burbury Theatre
1650 - 1700	Questions and discussions				Stanley Burbury Theatre
1830 - 2030	Comedy event				Stanley Burbury Theatre

THURSDAY 21 NOVEMBER 2024 – AARC Day 3		
0810 - 0840	Registration opens (Sir Stanley Burbury Theatre, Sandy Bay TAS 7005)	Registration desk (Stanley Burbury Foyer)
EXTREMES, REGIME SHIFTS AND TIPPING POINTS IN THE ANTARCTIC SYSTEM		Chair: Amelie Meyer
0840 - 0850	Emerging tipping point elements in Antarctica Prof Nerilie Abram <i>The Australian National University</i>	Stanley Burbury Theatre
0850 - 0900	Synoptic weather influence on the preservation of the Southern Annular Mode in coastal East Antarctic ice cores Dr Danielle Udy <i>Bureau of Meteorology</i>	Stanley Burbury Theatre
0900 - 0910	Consequences of extended ozone depletion and reduced snow and ice cover for Antarctic biota Prof Sharon Robinson <i>SAEF, University of Wollongong</i>	Stanley Burbury Theatre
0910 - 0920	Questions and discussions	Stanley Burbury Theatre
0920 - 0930	Has there been a recent regime shift in Antarctica's contribution to sea-level rise? Dr Richard Jones <i>Monash University</i>	Stanley Burbury Theatre
0930 - 0940	Linking large-scale climate modes to Antarctic surface wind variability Dr Zhaohui Wang <i>ACEAS</i>	Stanley Burbury Theatre
0940 - 0950	Questions and discussions	Stanley Burbury Theatre
0950 - 1020	Morning refreshments	Stanley Burbury Foyer
1020 - 1030	Recent regime transition of East Antarctic shelf seas Dr Laura Herraiz Borreguero <i>Commonwealth Scientific And Industrial Research Organization (csiro)</i>	Stanley Burbury Theatre
1030 - 1040	The tipping point for Antarctic shallow seabed algae: data-informed models quantify the imminent threat from climate change Ms Elise Mills <i>Queensland University Of Technology</i>	Stanley Burbury Theatre
1040 - 1050	Synoptic drivers of intense surface melt in East Antarctica Dominic Saunderson <i>Monash University</i>	Stanley Burbury Theatre

1050 - 1100	Questions and discussions					Stanley Burbury Theatre
1100 - 1135	Lightning talks					Stanley Burbury Theatre
1135 - 1140	Walk to the Activities Centre					
1140 - 1240	Lunch and Posters					Activities Centre
1240 - 1245	Walk to side events					
SIDE EVENTS						
	Activities Centre	Centenary Harvard 1	Stanley Burbury	G19 Classroom	Centenary Harvard 2	
1245 - 1345	Session 2 POSTERS Group A presenting	Coordinated observations and modelling for rapid progress in understanding Southern Ocean processes Prof Helen Phillips UTAS	Remote Sensing Science in Antarctica and Sub-Antarctic Islands using Drones and Satellite Imagery, and AI: From Data Acquisition to Management/Policy. Dr Juan Sandino QUT	Public engagement with Antarctic science - results from a national survey Dr Linda Hunt UTAS	Constraining BGC-Argo float derived estimates of Southern Ocean productivity Mr Xiang Yang IMAS	
1345-1350	Walk to side events					
1350 - 1450	Session 2 POSTERS Group B presenting	Modelling Antarctica and the Southern Ocean Dr Edward Doddridge AAPP	Building a community for Digital Antarctica Dr Alix Post Geoscience Australia	Australian ICECAP data users workshop Dr Lenneke Jong Australian Antarctic Division	TBC	
1450 - 1525	Afternoon refreshments					Stanley Burbury Foyer

OTHER ANTARCTIC/SUB-ANTARCTIC/SOUTHERN OCEAN TOPICS		Chair: Nerilie Abram
1525 - 1535	The Role of Acantharia in Southern Ocean Strontium Cycling and Carbon Export Ms Yaojia Sun <i>The Australian National University</i>	Stanley Burbury Theatre
1535 - 1545	Simulating mixed-phase clouds over coastal Antarctica during a significant snowfall event in a high-resolution regional model Mr Zhangcheng Pei <i>Australian Antarctic Program Partnership</i>	Stanley Burbury Theatre
1545 - 1555	Atmospheric dust deposition to Macquarie Island indicates episodic shifts in late Holocene synoptic patterns Ms Andrea Johansen <i>University Of Wollongong</i>	Stanley Burbury Theatre
1555 - 1605	Towards Standardised DNA Diet Monitoring for Antarctic Predators: A Comparative Multi-Year Study of the Diets of Adélie Penguins at Signy Island, South Orkneys Dr Anna MacDonald <i>Australian Antarctic Division</i>	Stanley Burbury Theatre
1605 - 1615	Questions and discussions	Stanley Burbury Theatre
1615 - 1625	Unlocking Antarctica: Building an open access satellite data platform Dr Alix Post <i>Geoscience Australia</i> Questions and discussions	Stanley Burbury Theatre
1625 - 1635	Monitoring Antarctic krill (<i>Euphausia superba</i>) presence and abundance: environmental DNA (eDNA) adds an additional layer to the toolbox Dr Leonie Suter <i>Australian Antarctic Division</i>	Stanley Burbury Theatre
1635 - 1645	Coupling the subantarctic seasonal iron cycle to productivity at the Southern Ocean Time Series (SOTS) Mr Christopher Traill <i>UTAS/AAPP</i>	Stanley Burbury Theatre
1645 - 1655	Questions and discussions	Stanley Burbury Theatre
1730 - 1930	Antarctic Women's Network night– Creating connections in the Antarctic sector Dr Tara Martin <i>Tasmanian Government</i>	University Club

FRIDAY 22 NOVEMBER 2024 – AARC Day 4		
0810 - 0840	Registration opens (<i>Sir Stanley Burbury Theatre, Sandy Bay TAS 7005</i>)	Registration desk (Stanley Burbury Foyer)
0840-0950	Session 2: POSTERS Group A & B presenting	Activities Centre
ANTARCTICA'S PAST		Chair: Tessa Vance
0950 - 1000	Seawater-derived lead isotope evidence for East Antarctic meltwater contribution during the Last Interglacial Period? Dr Taryn Noble <i>UTAS</i>	Stanley Burbury Theatre
1000-1010	Physical Features in High Resolution East Antarctic Ice Cores and Their Relationship to Regional Atmospheric Circulation and Precipitation Miss Lingwei Zhang <i>UTAS/IMAS</i>	Stanley Burbury Theatre
1010-1020	The Million Year Ice Core Project Dr Joel Pedro <i>AAD</i>	Stanley Burbury Theatre
1020 - 1030	An automatic adjoint modelling framework for GIA, via G-ADOPT Dr Will Scott <i>Australian National University</i>	Stanley Burbury Theatre
1030 - 1040	Fingerprinting East Antarctic Ice Mass Loss During MIS5e from Far-Field Sea-Level Records Assoc Prof Ian Goodwin <i>UNSW</i>	Stanley Burbury Theatre
1040 - 1050	Questions and discussions	Stanley Burbury Theatre
1050 - 1100	Conference statement	
1100 - 1120	Morning refreshments	Stanley Burbury Foyer
ANTARCTICA'S FUTURE: RESEARCH DIRECTIONS IN THE GLOBAL CONTEXT		Chair: David Souter
1120 - 1130	Future Ice States - better understanding the role of the cryosphere in determining Antarctica's fate Prof Delphine Lannuzel <i>IMAS</i>	Stanley Burbury Theatre

1130 - 1140	Southern Ocean Observing System for sustained and coordinated observations in a changing world Dr Alyce Hancock <i>Southern Ocean Observing Systems</i>	Stanley Burbury Theatre
1140 - 1150	A circumpolar benthic bioregionalisation derived from seafloor imagery and its potential to inform monitoring Dr Nicole Hill <i>IMAS / UTAS</i>	Stanley Burbury Theatre
1150 - 1200	The cost of conservation in Antarctica Dr Justine Shaw <i>Securing Antarctic Environmental Future, QUT</i>	Stanley Burbury Theatre
1200 - 1210	Developments of the notion of 'best scientific advice' in the Antarctic Treaty Consultative Meetings Dr Indi Hodgson-Johnston <i>IMAS/ ACEAS/AAPP</i>	Stanley Burbury Theatre
1210 - 1220	Biodiversity Informatics for Antarctic Environmental Conservation Prof Steven Chown <i>Monash University</i>	Stanley Burbury Theatre
1220 - 1230	Questions and discussions	Stanley Burbury Theatre
1230 - 1250	Closing plenary & prizes	
1250 – 1350	Lunch	Stanley Burbury Foyer

THANK YOU TO OUR PARTNERS AND SUPPORTERS



AARC Site Map
University of Tasmania
Sandy Bay Campus



LEGEND

1	TUSA / Activities Centre (Level 1) – Lunch and Posters G19 Classroom – Ground Floor
2	Stanley Burbury Theatre – Plenary (ground floor) Lazenby's Café – Welcome reception (downstairs to the Stanley Burbury Theatre) Studio Theatre & Foyer – Morning and afternoon refreshments
3	Centenary Harvard 1
4	Centenary Harvard 2
5	University Club – Antarctic Women's Network Night
	Footpaths
	Roads
	Voucher Parking
	Bus stop
	All gender Toilet
	Undercover area
	Other Buildings