

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

MONDAY	MONDAY 18 NOVEMBER 20241 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/shrTY3m3xlloFGuqg . Spots are limited, so be sure to sign up early! (IMAS - 20 Castray Esplanade, Battery Point)	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: Improving the readability of visuals using graphic design principles 	HFCC			

	Symbolism and visual cues	
	•The dos and don'ts of visualisation	
1220 - 1330	Lunch	HFCC
1330 - 1515	Quantitative Skill Development Workshop: Finding Structure in High-Dimensional Data: A Workshop on Dimensionality Reduction Techniques Presented by Professor Mike Bode (QUT), Ms Larissa Lubiana Botelho (SAEF QUT) and Dr Zach Carter (UAdelaide) 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.	HFCC
	Communication Development Workshop Presented by Amelia Pearson (Monash Climate Change Communication Research Hub) and Anna Quinn (Securing Antarctica's Environmental Future) 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.	HFCC
1515 - 1545	Afternoon Refreshments	HFCC
1545 - 1700	Antarctic Policy PanelPanel: Ewan McIvor (AAD), Dr. Lynda Goldsworthy (IMAS,UTAS), Dr. Steve Parker (CCAMLR)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 tolearn about pathways for attending official meetings, join us and ask your own questions!Break - walk to Hobart Brewing Co.	HFCC
1730 - 2000	Research & Refreshments - ECR Social Evening 5-minute crash-course presentations from ECRs: 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) Food and drink are provided for ECRs, others are welcome to join	Hobart Brewing Co. 16 Evans St. Hobart

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

STANLEY BURBURY THEATRE, SANDY BAY

TUESDAY	19 NOVEMBER 2024 – AARC Day 1	
0800 - 0830	Poster drop off	Registration desk (Stanley
0815 - 0900	Registration opens	Burbury Foyer)
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
ANTARCTIC	A IN A CHANGING CLIMATE AND EARTH SYSTEM	Chair: Steve Rintoul
1040 - 1050	The Antarctic Ice Sheet and sea level: contemporary changes and future projections	Stanley Burbury Theatre
	Dr Benjamin Galton-Fenzi	
	Australian Antarctic Division	
1050 - 1100	Investigating the Stability of the Denman Shackleton Ice Shelf System, East Antarctica	Stanley Burbury Theatre
	Dr Sarah Thompson	
1100 - 1110	AAPP Antarctic Coastal Current regulates the melting of the Denman/Shackleton ice shelf	Stanley Burbury Theatre
1100 - 1110	Antal cuc coastal current regulates the melting of the Denmany Shackleton ice shell Ms Yuhang Liu	Stalley Burbury Theatre
	IMAS	
1110 - 1120	Questions and discussion	Stanley Burbury Theatre
1120 - 1130	Distinct Central and Eastern Pacific El Niño Influence on Antarctic Surface Mass Balance	Stanley Burbury Theatre
	Mrs Jess Macha	
	Monash University	
1130 - 1140	Impact of Climate Change-Induced Wind Intensification on Physiological Responses in Antarctic Vegetation	Stanley Burbury Theatre
	Mr Yifan Wu	
	University of Wollongong	
1140 - 1150	Antarctic krill vertical migration has a minor contribution to particulate organic carbon flux	Stanley Burbury Theatre
	Dr Abigail Smith Australian Antarctic Division	

1150 - 1200	Questions and discuss	sions			Stanley Burbury Theatre
1200 - 1225	Lightning Talks		Stanley Burbury Theatre		
1225 - 1230	Walk to the Activities C	Centre			
1230 - 1330	Lunch and posters				Activities Centre
1330 - 1335	Walk to side events				
SIDE EVENT	S				
	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 <i>Australian National University</i>	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 <u>here</u> to register Dr Kieran Murphy <i>IMAS</i>	Australian initiatives for Antarctica InSync Dr Petra Heil <i>AAD, AAPP & WSL</i>
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 Syndey	Exploring novel Antarctic research opportunities with sustainably fuelled drones Mr Liam Turner <i>Monash University</i>	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 <i>UTAS / IMAS</i>
1540 - 1615	Afternoon refreshme	nts		•	Stanley Burbury Foyer
ANTARCTIC	A IN A CHANGING CL	IMATE AND EARTH SYSTEM	1		Chair: Steve Rintoul
1615 – 1625	Observational estimat Ms. Laura Dalman IMAS	Stanley Burbury Theatre			
1625 – 1635	West Antarctic melt va 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

Tuesday

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

WEDNES	DAY 20 NOVEMBER 2024 – AARC Day 2	
0810 - 0840	Registration opens	Registration desk
	(Sir Stanley Burbury Theatre, Sandy Bay TAS 7005)	(Stanley Burbury Foyer)
	I DIMENSION OF ANTARCTICA	Chair: Elle Leane
0840 - 0850	Beyond frozen boundaries: Collaborative research between STEM and HASS scholars	Stanley Burbury Theatre
	A/Prof Daniela Liggett	
	School of Earth and Environment, University of Canterbury, Christchurch, New Zealand	
0850 - 0900	Strengthening the CCAMLR decision-making process	Stanley Burbury Theatre
	Dr Lynda Goldsworthy	
	IMAS – UTAS	
0900 - 0910	Fishy Business: Assessing Compliance Among CCAMLR Listed Vessels	Stanley Burbury Theatre
	Rhianna Hamilton	
	University Of Adelaide	
0910 - 0920	Tik Takking Antawatigas Explaying Kanyagantationg via gagial madia	Ctaplay Durbury Thaatra
0910 - 0920	Tik Tokking Antarctica: Exploring representations via social media	Stanley Burbury Theatre
	Assoc Prof Anne Hardy UTAS	
	UTAS	
0920 - 0930	Questions and discussions	Stanley Burbury Theatre
0930 - 0940	Situational awareness, risk and safety: Weather-related decision-making in Antarctic environments	Stanley Burbury Theatre
	Ms Victoria Heinrich	
	Bureau Of Meteorology / University of Tasmania	
0940 - 0950	Collaboration, Ambition, Diversity and Community – core values of Securing Antarctica's Environmental Future	Stanley Burbury Theatre
	program	
	Dr Diana King	
	University of Wollongong	
0950 - 1000	Collapse and recovery of consensus at the Antarctic Treaty Consultative Meetings	Stanley Burbury Theatre
	Prof Michael Bode	
	Queensland University Of Technology	
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 - shi Dr Joy McCann UTAS	Stanley Burbury Theatre				
	Science informed Nego Jeffrey McGee IMAS/UTAS	tiation as the Heart of The Anta	arctic Treaty System		Stanley Burbury Theatre	
1050 - 1100	Creative Antarctica: Au Dr Carolyn Philpott & I UTAS	stralian Artists and Writers in th Elizabeth Leane	ne Far South		Stanley Burbury Theatre	
1100 - 1115	Questions and discussi	ons			Stanley Burbury Theatre	
1115 - 1125	Dr Krystyna Saunders	First temporal record of atmospheric nuclear weapons testing fallout on a sub-Antarctic Island				
1125 - 1135	Exploiting Captain Robe Dr Carl Walling University Of The Sunshin	Stanley Burbury Theatre				
1135 - 1150	Questions and discussi	ons			Stanley Burbury Theatre	
1150 - 1220	Lightning Talks				Stanley Burbury Theatre	
1220 - 1225	Walk to the Activities Ce	entre				
1225-1325	Lunch and Posters				Activities Centre	
1325 - 1330	Walk to side events					
SIDE EVENTS	5					
	Activities Centre	Centenary Harvard 1	Stanley Burbury	G19 Classroom	Centenary Harvard 2	
1330 - 1430	Session 1 <u>POSTERS</u> Group B presenting	Application of isotopic tracers and nuclear techniques to research in the Antarctic region Dr Krystyna Saunders Australian Nuclear Science and Technology Organisation	Denman Marine Voyage – Science Activities Prof Delphine Lannuzel <i>UTAS</i>	Part A: Best practice communication: Translating Antarctic and Southern Ocean science Amelia Pearson Monash Climate Change Communication Research Hub Anna Quinn SEAF	Refloating research of the East Antarctic Marginal Ice Zone [MIZ] Dr Petra Heil <i>UTAS</i>	

Wednesday

1430 - 1435	Walk to side events				
1435 - 1535	Session 1 POSTERS Group A presenting	Establishing an East Antarctic Long-Term Ecological Research (LTER) Dr Alyce Hancock Southern Ocean Observing System	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 Monash Climate Change Communication Research Hub Anna Quinn SEAF	Multidisciplinary Investigations of the Southern Ocean (MISO) Dr Annie Foppert UTAS/AAPP
1535 – 1610	Afternoon refreshment	ts			Stanley Burbury Foyer
OTHER ANT	ARCTIC/SUB-ANTARC	TIC/SOUTHERN OCEAN TOP	PICS		Chair: Nerilie Abram
1610 – 1620	Line of earthquakes offs Dr Katharina Hochmut UTAS	shore East Antarctica – a plate t h	ooundary jump in progress?		Stanley Burbury Theatre
1620 - 1630	Resolving Antarctic Bottom Water pathways in Australian-Antarctic Basin Ms Polina Sholeninova Australian National University			Stanley Burbury Theatre	
1630 - 1640		of modified Circumpolar Deep V	Water intrusions into Vincenne	es Bay, East Antarctica.	Stanley Burbury Theatre
1640 - 1650		ervations in the antarctic circun	npolar Current Under SWOT.		Stanley Burbury Theatre
1650 - 1700	Questions and discussions			Stanley Burbury Theatre	
1830 - 2030	Comedy event				Stanley Burbury Theatre

THURSDA	Y 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 SAEF, University of Wollongong	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 Monash University	Stanley Burbury Theatre
0930 - 0940	Linking large-scale climate modes to Antarctic surface wind variability Dr Zhaohui Wang ACEAS	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 Monash University	Stanley Burbury Theatre

1050 - 1100	Questions and discussions				Stanley Burbury Theatre
1100 - 1135	Lightning talks				Stanley Burbury Theatre
1135 - 1140	Walk to the Activities Cen	tre			ł
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 <i>UTAS</i>	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 <i>QUT</i>	Public engagement with Antarctic science - results from a national survey Dr Linda Hunt <i>UTAS</i>	Constraining BGC-Argo float derived estimates of Southern Ocean productivity Mr Xiang Yang <i>IMAS</i>
1345-1350	Walk to side events	-			
1350 - 1450	Session 2 <u>POSTERS</u> 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	ТВС
1450 - 1525	Afternoon refreshments				Stanley Burbury Foyer

OTHER ANT	ARCTIC/SUB-ANTARCTIC/SOUTHERN OCEAN TOPICS	Chair: Helen McGregor
1525 - 1535	The Role of Acantharia in Southern Ocean Strontium Cycling and Carbon Export Ms Yaojia Sun	Stanley Burbury Theatre
	The Australian National University	
1535 - 1545	Simulating mixed-phase clouds over coastal Antarctica during a significant snowfall event in a high-resolution regional model	Stanley Burbury Theatre
	Mr Zhangcheng Pei	
1545 1555	Australian Antarctic Program Partnership	Charalas Dunkum Theatur
1545 - 1555	Atmospheric dust deposition to Macquarie Island indicates episodic shifts in late Holocene synoptic patterns Ms Andrea Johansen	Stanley Burbury Theatre
	University Of Wollongong	
1555 - 1605	Towards Standardised DNA Diet Monitoring for Antarctic Predators: A Comparative Multi-Year Study of the Diets of	Stanley Burbury Theatre
	Adélie Penguins at Signy Island, South Orkneys	
	Dr Anna MacDonald Australian Antarctic Division	
1605 - 1615	Questions and discussions	Stanley Burbury Theatre
1615 - 1625	Unlocking Antarctica: Building an open access satellite data platform	Stanley Burbury Theatre
1015 1025	Dr Alix Post	Stanley Darbary meatre
	Geoscience Australia Questions and discussions	
1625 - 1635	Monitoring Antarctic krill (Euphausia superba) presence and abundance: environmental DNA (eDNA) adds an	Stanley Burbury Theatre
	additional layer to the toolbox	
	Dr Leonie Suter	
	Australian Antarctic Division	
1635 - 1645	Coupling the subantarctic seasonal iron cycle to productivity at the Southern Ocean Time Series (SOTS)	Stanley Burbury Theatre
	Mr Christopher Traill	
1645 - 1655	UTAS/AAPP Questions and discussions	Staplay Burbury Theatre
	Questions and discussions	Stanley Burbury Theatre
1730 - 1930	Antarctic Women's Network night- Creating connections in the Antarctic sector	University Club
	Dr Tara Martin Tasmanian Government	

STANLEY BURBURY THEATRE, SANDY BAY

FRIDAY 2	2 NOVEMBER 2024 – AARC Day 4	
0810 - 0840	Registration opens (Sir Stanley Burbury Theatre, Sandy Bay TAS 7005)	Registration desk (Stanley Burbury Foyer)
0840-0950	Session 2: <u>POSTERS</u> Group A & B presenting	Activities Centre
ANTARCTIC	A'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 UTAS	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 UTAS/IMAS	Stanley Burbury Theatre
1010-1020	The Million Year Ice Core Project Dr Joel Pedro AAD	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 UNSW	Stanley Burbury Theatre
1040 - 1050	Questions and discussions	Stanley Burbury Theatre
1050 - 1100	Conference statement	
1100 - 1120	Morning refreshments	Stanley Burbury Foyer
ANTARCTIC	A'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

Friday

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



