

Registration, presentations, tea/coffee and lunch are all in the [Teaching and Learning Centre](#) (TLC), Durham University, South Road, Durham, DH1 3LS. All talks will take place in TLC033.

Monday 21st July	
08:15 – 17:00	Registration on the ground floor of the TLC
09:00 – 09:15	Welcome address by Caroline Clason and Colm O’Cofaigh
Session 1: Ice-ocean interactions	
09:15 – 09:45	Keynote - Elynn Enderlin: Variability in ice mélange properties around Greenland
09:45 – 10:05	Michalea King: Investigating recent decadal trends in proglacial mélange extent and rigidity and its variable impact on glacier calving across Greenland
10:05 – 10:25	* Lokesh Jain: Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers
10:25 – 10:45	Donald Slater: Differences in calving styles at tidewater glaciers explained by force balance
10:45 – 11:15	TEA/COFFEE BREAK
Session 2: Ice-ocean/lake interactions	
11:15 – 11:35	Andreas Vieli: Understanding continuous calving event dynamics at a major Greenland tidewater glacier using a multisensor approach
11:35 – 11:55	* Dhruv Maniktala: Studying calving rates and styles at Hansbreen, Svalbard: A high-frequency time-lapse approach
11:55 – 12:15	Kevin Hank: Heinrich Events: unpacking the convoluted freshwater connection
12:15 – 12:35	Kai Hu: Proglacial lake drainage events drive fast grounding line advance in a warming climate
12:35 – 13:40	LUNCH
Session 3: Palaeo ice streams and ice dynamics	
13:40 – 14:10	Keynote - Monica Winsborrow: The imprints and dynamics of ice streams on glaciated continental margins
14:10 – 14:30	Cathy Delaney: Reconstructing the evolution of a palaeo-ice stream onset zone using high-resolution digital elevation models
14:30 – 14:50	Dave Roberts: The deglacial history of 79N glacier and the Northeast Greenland Ice Stream
14:50 – 15:10	* Holly Jenkins: A sedimentological characterisation of epishelf lake Blåsø, Northeast Greenland
15:10 – 15:30	Matthew Hunt: Deglaciation of the south-east Greenland continental shelf constrained by radiocarbon dating
15:30 – 16:00	TEA/COFFEE BREAK
Session 4: Subglacial processes	
16:00 – 16:20	Dominic Hodgson: Subglacial evidence of early Holocene retreat and readvance of the Rutford Ice Stream (West Antarctica)
16:20 – 16:40	Bernd Kulesa: New insights into West Antarctic sedimentary basins and crustal structure from magnetotelluric imaging
16:40 – 17:00	* Chiara Alina Tobisch: A giant grounding zone wedge in Vincennes Bay, East Antarctica: evolution model based on internal structures
17:00 – 17:20	Paul Bessin: Production of unclassified subglacial bedforms databases from automated delineation and morphometry
18:00 – 19:30	ICEBREAKER – UNDERCROFT BAR, DURHAM CASTLE

Tuesday 22 nd July	
<i>Session 5: Ice sheet and ice process modelling</i>	
9:00 – 9:30	Keynote - Ian Joughin: Impact of melt on large glaciers in East and West Antarctica
9:30 – 9:50	Sebastian Rosier: Calibrated sea level contribution from the Amundsen Sea sector, West Antarctica, under RCP8.5 and Paris 2C scenarios
9:50 – 10:10	Marianne Haseloff: Thermal and hydrological controls on marine ice stream dynamics
10:10 – 10:30	Colin Meyer: Subglacial thermomechanical processes affect ice stream dynamics
10:30 – 11:00	TEA/COFFEE BREAK
<i>Session 6: Ice shelves</i>	
11:00 – 11:20	Bryony Freer: Surface impression of the basal stress transition at the Ross Ice Shelf grounding line, Antarctica
11:20 – 11:40	James Smith: Detection of seawater upstream of the Thwaites Eastern Ice Shelf
11:40 – 12:00	*Yite Chien: Observation of deceleration at the Pine Island Ice Shelf from 2022 to 2023
12:00 – 12:20	Hilmar Gudmundsson: A new framework for describing ice damage evolution and full-thickness rift propagation in ice shelves.
12:20 – 12:40	Chunxia Zhou: Basal channels and basal melting of the Amery Ice Shelf and their link with the Mackenzie Polynya — a regional air–ice–ocean–biology environment system in the Prydz Bay, East Antarctica
12:40 – 13:40	LUNCH
<i>Session 7: Antarctic outlet glacier dynamics</i>	
13:40 – 14:10	Keynote - Eric Rignot: Ice stream dynamics controlled by grounding zone processes
14:10 – 14:30	Bertie Miles: Totten Ice Shelf history over the past century interpreted from satellite imagery
14:30 – 14:50	Shin Sugiyama: Subglacial water pressure variations and their influence on the dynamics of Langhovde Glacier in East Antarctica
14:50 – 15:10	Ken Kondo: Direct observation of basal sliding beneath Langhovde Glacier in East Antarctica during speed-up events caused by surface melt and rain
15:10 – 15:40	TEA/COFFEE BREAK
<i>Session 8: Posters</i>	
15:40 – 17:30	See list of posters for more information
17:30 – 19:00	ECR WORKSHOP in TLC116

Wednesday 23 rd July	
<i>Conference excursion</i>	
08:50 – 18:00	Meet in front of TLC at 8:50 for 9:00 start. Mid-conference field trip to explore the glacial history and glacial geomorphology of palaeo-ice stream beds in northern England, including a visit to the UNESCO World Heritage site of Hadrian's Wall. Packed lunch provided.

Thursday 24 th July	
Session 9: Subglacial bedforms beneath ice streams	
9:00 – 9:30	Keynote - Chris Clark: Ice stream landforms
9:30 – 9:50	Edouard Ravier: What did we learn from ten years of experimental ice sheet modelling?
9:50 – 10:10	* Charlotte Carter: Formation of mega-scale glacial lineations far inland under the onset of NEGIS
10:10 – 10:30	* Syed Bukhari: Palaeoglaciological structure of Finnish Lake District Ice Stream from high-resolution LiDAR mapping: implications for glaciology of modern ice streams
10:30 – 11:00	TEA/COFFEE BREAK
Session 10: Ice sheet observations from surface to bed	
11:00 – 11:20	Matthew Siegfried: Novel fusion of satellite altimetry and gravimetry reveals dominant atmospheric signatures in Greenland and Antarctic ice-sheet mass and volume changes
11:20 – 11:40	Kenichi Matsuoka: Ice sheet discharge constrained by RINGS airborne surveys of bed topography in Dronning Maud Land and Enderby Land
11:40 – 12:00	Olaf Eisen (presented by Daniela Jansen): RINGS surveys in Antarctica: Establishing the primary ring in Dronning Maud and Enderby Land with AWI's ultrawideband airborne system
12:00 – 12:20	Calvin Shackleton (presented by Kenichi Matsuoka): Quantifying knowledge gaps in subglacial topography to refine subglacial hydrology and ice discharge estimates, and survey requirements for Antarctic RINGS missions at the ice sheet margin
12:20 – 13:30	LUNCH
<i>During lunch</i>	Side event: 'SCAR RINGS discussion' in TLC117
Session 11: Ice stream shear margins	
13:30 – 14:00	Keynote - Christina Hulbe: Shear Margins IRL
14:00 – 14:20	David Prior: Rheology of shear margins
14:20 – 14:40	Daniela Jansen: Physical properties from shallow cores in the shear margin of NEGIS and their role in shear localisation
14:40 – 15:00	David Evans: The Cooking Lake moraine – implications for interpreting inter-ice stream/interlobate zones in the SW Laurentide Ice Sheet
15:00 – 15:30	TEA/COFFEE BREAK
Session 12: Ice flow stratigraphy	
15:30 – 15:50	* Shivangini Singh: Radiostratigraphic implications for ice flow evolution in the South Pole - Dome A Sector
15:50 – 16:10	Nicolas Stoll: Direct observations of crystal preferred orientation and derived deformation regimes utilising the EastGRIP ice core from the Northeast Greenland Ice Stream (NEGIS)
16:10 – 16:30	Tamara Gerber: Anisotropic Scattering in the Northeast Greenland Ice Stream: A Proxy for Ice Crystal Orientation and Ice-Stream Stratigraphy
16:30 – 17:30	Seligman Crystal presentation and talk - Dorte Dahl-Jensen
19:30	CONFERENCE DINNER – GREAT HALL, DURHAM CASTLE (including presentation of the Richardson Medal to Bethan Davies)

Friday 25 th July	
Session 13: Outlet glacier, ice stream and surging dynamics	
9:00 – 9:20	Joanna Zanker: Assessing the importance of Greenland's ice shelves for future sea-level rise predictions
9:20 – 9:40	* Armin Dachauer: High spatial and temporal ice velocity fluctuations at major Greenlandic tidewater outlet glacier using terrestrial radar interferometry
9:40 – 10:00	Signe Hillerup Larsen (presented by Nanna Karlsson): Timescales of flow adjustment to retreat events at Helheim Glacier: reconstructing solid ice discharge from 1900 to present
10:00 – 10:20	Beatriz Recinos Rivas: Mapping ice stream sensitivity in the Amundsen Sector to changes in ice velocity observations
10:20 – 10:40	Benjamin Davison: Surging glaciers on the Antarctic Peninsula
10:40 – 11:10	TEA/COFFEE BREAK
Session 14: Greenland hydrology and dynamics	
11:10 – 11:30	* Gianluca Bianchi: Modelling the effects of diurnal changes to solar radiation and meltwater inputs on supraglacial channels
11:30 – 11:50	Neil Ross: Dynamics and evolution of the hydrological system of Isunnguata Sermia, West Greenland
11:50 – 12:10	* Ryan Ing: Moulin water pressure variations over an active subglacial lake in Greenland
12:10 – 12:30	Tom Chudley: Seasonal dynamics control the drainage of ponded crevasses at Greenlandic outlet glaciers
12:30 – 12:50	Yefan Wang: Catastrophic drainage from ice-marginal lakes regulates ice-motion at a Greenlandic lake-terminating glacier
12:50 – 13:00	Student prizes and closing address by Chris Stokes
13:00 – 14:00	LUNCH AND SYMPOSIUM CLOSES

POSTERS

Presenter	Title	Board
Amy Lally	Mapping the Spatiotemporal Evolution of an Ice-marginal and Proglacial Landscape Using Repeat UAV Surveys, Breiðamerkurjökull (Iceland).	1
Andrea Kneib-Walter	Depth-resolved fjord water circulation inferred from iceberg tracking at a calving glacier in Greenland	2
Anna Hughes	Ice streams of the Eurasian Ice Sheet Complex (EISC)	3
* Antonin Salamin	Using tide gauge observations to infer calving activity at a Greenland outlet glacier	4
Becky Sanderson	Persistent englacial signatures in Academy Glacier, Antarctica	5
Brad Reed	A calibrated ice-ocean model of West Antarctica	6
* Charlotte Carter	Diverse geomorphological regimes underlie the Northeast Greenland Ice Stream	7
Colm O'Cofaigh	Geomorphological and sedimentological imprints of the Northeast Greenland Ice Stream on the outer continental shelf during the last glaciation and timing of initial retreat	8

Dana Floricioiu	Grounding line products of the Antarctic Ice Sheet climate change initiative project	9
Devin Harrison	Shelf break glaciation in a deep-sea environment, South Shetland Trough, Antarctica	10
Edouard Ravier	Reassessing the significance of subglacial bedform for large-scale palaeoglaciological reconstructions	11
Emily Hill	Calibrating a Greenland ice sheet model using historical simulations between 1972-2022	12
Francisco Navarro	Constraining the estimates of ice discharge from the northern AP using a two-step ice-thickness inversion scheme	13
Gabriel Cairns (presented by Ian Hewitt)	Modelling the hydrology of sedimentary basins beneath ice streams	14
*Gabriel Myers	Rheological controls on glacier steady state	15
Gwendolyn Leysinger Vieli	Water, topography and ice flow: connecting basal freeze-on to englacial folds in ice sheets	16
*Hannah Verboncoeur	Estimating ice-stream subglacial conditions through unsupervised clustering of bed-echo waveforms	17
Jan De Rydt	Calibration of an Antarctic Ice Sheet model	18
*Janina Güntzel	Glacial landform assemblages from paleo-ice stream beds and their sediments – Reconstructing grounding line extent and retreat from the Mac. Robertson Shelf	19
Jenna Sutherland	Glacial landystems of the Southern Alps outlet glaciers, New Zealand	20
Jowan Barnes	Investigating the stability of Helheim Glacier, Greenland	21
Kate Horan	Refining the marine geological imprint of Antarctic ice shelves	22
*Katherine Deakin	A comprehensive inventory of Antarctic ice tongues and controls on their formation	23
*Katie Meddins	Ice-ocean interactions of the Filchner ice shelf system: a multi-proxy Holocene reconstruction	24
*Logan Mann	Nonlinear stress coupling and exact solutions for glacier and ice sheet flow	25
*Matilda Weatherley	Recent changes in ice dynamics of outlet glaciers in Porpoise Bay, Wilkes Land, East Antarctica	26
Matthew Hunt	The deglaciation of the north-west Greenland continental shelf	27
Max Brils	Using data inversion to infer basal melt rates underneath ice shelves	28
Peter Nienow	Has the Greenland Ice Sheet reached peak ice discharge	29
*Richard Parsons	Calving rate linearly dependent on sub-aerial terminus cliff height at tidewaters glaciers around the Antarctic Peninsula	30
Sainan Sun	Contribution of ice-shelf melt, calving and damage to the evolution of Pine Island and Thwaites glaciers	31

Sebastian Rosier	Inversions of ice thickness for Southwest Greenland using physics-informed deep learning	32
*Sindhu Ramanath	Investigation of tidal grounding line migration with Sentinel-1 line-of-sight offsets	33
Stewart Jamieson	Reconstructing the dynamic behaviour of the Northeast Greenland Ice Stream: LGM to present	34
Tamara Gerber	Reconfiguration of subglacial water routing and ice flow in Northeast Greenland during the Holocene	35
Tilly Woods	Temporal stability of subtemperate regions in ice-stream formation	36
*Zachary Katz	Improved observations of Antarctic ice stream tidal dynamics using satellite altimetry	37

*** Student presenter**