

IGSBB MEETING 2021

SCHEDULE

DAY 1:

Mon 6th Sept	Session	Presenter (*student)	Presentation title
12:30	Welcome		
12:45	(1) Human impacts and pollution Chairs: Lauren Rawlins, David Ashmore	Caroline Clason	Global distribution and controls on the accumulation of fallout radionuclides in cryoconite
		Dylan Beard*	Contamination in mountain glacial environments: a review of anthropogenic contaminants in glacial systems and their downstream impacts
		Efthymia Koliokosta*	Arctic Airports at Permafrost Thawing Risk
13:30	Break and virtual socialising on Zoom and/or Kumospace		
14:00	(2) Records of past ice sheet change Chairs: Keir Nichols, Stephen Livingstone	Benjamin Boyes*	Fennoscandian Ice Sheet glaciation on the Kola Peninsula and Russian Lapland
		Robert Bingham	AntArchitecture: towards an age-depth model of the WAIS from radiostratigraphy
14:30	(3) New Data and Geophysical Approaches Chairs: Emma Pearce, TJ Young	Julien Bodart*	BAS aerogeophysics data: Releasing 20 years of radar, magnetic and gravity data over Antarctica
		Michael R Prior Jones	Open-source instruments for real-time wireless field glaciology
		Jonathan Hawkins*	pRESim: A 2D ray-based simulation tool for generating cross-sectional glacial radar profiles
		William D Harcourt*	94 GHz radar for snow and ice mapping
15:30	Break and virtual socialising on Zoom and/or Kumospace		
16:00	(4) Remote Sensing of the Cryosphere 1 Chairs: Debmita Bandyopadhyay, Stephen Brough	Adrian Dye	Detailed Characterization of Proglacial Lake Temperature Response to Changing Arctic Climate using Satellite Thermal Imagery
		Nathanial R Baurley*	Insights into the seasonal dynamics of the lake-terminating glacier Fjallsjökull, south-east Iceland, inferred using ultra-high resolution repeat UAV imagery
		Dominik Fahrner*	Seasonal velocity and strain evolution of Narsap Sermia, SW Greenland, using high-resolution satellite radar data.
		Iram Ali*	Estimation of spatial pattern of debris thickness- a case study from Hoksar glacier, Kashmir Himalayas

17:00	<p>Panel Discussion for Early Career Scientists (IGS-EGG and Liverpool co-organised)</p>	<p>Panel discussion with four professionals with cryospheric PhDs about their career paths outside traditional academia. Panellists: Dr Arminel Lovell (CDP), Dr Charlie Bunce (Trade in Space), Dr Chris Williams (British Geological Survey), Dr Damon Davies (Scottish Parliament)</p>
18:00	<p>Zoom mixer - find yourself in four random groups over the hour!</p>	
19:00	<p>Day ends</p>	

DAY 2:

Tues 7th Sept	Session	Presenter	Presentation title
12:30	(5) Surface Mass Balance Chairs: Dorothea Moser, Doug Mair	Thomas Y Chen* Shannon Kelly* Tilly Woods* Sammie Buzzard	Towards State-of-the-art Machine Learning Models for Glacial Melt Analysis in Iceland Greenland Ice Sheet surface mass balance 1806 to 2020 and its links with global climate change Influence of radiation penetration on ice sheet surface melt MONARCHS- A model of Antarctic Surface Hydrology and Stability
13:30	Break and virtual socialising on Zoom and/or Kumospace		
14:00	(6) Modelling Approaches Chairs: Kasia Warburton, Isabel Nias	Marianne Haseloff Niall Gandy Alexander T Bradley Anne Le Brocq	Buttressed marine ice sheets: the roles of calving and subshelf melting on steady state grounding line positions and their stability Ensemble of Coupled Climate-Ice Sheet Simulations of the LGM North American Ice Sheets WAVI.jl - a fast and friendly ice sheet model written in Julia Ice Flows Computer Game - Greenland extension
15:00	Poster flash talks (2 mins and one [optional] slide to introduce your poster) and discussion break-out rooms (3-4 per room)	<p>Hannah Barnett* (A New Method for Identifying Glacier Surge Events in the Karakoram)</p> <p>Katie Brown* (Computational Methods to Map Surface Meltwater on the Antarctic Peninsula Using Sentinel-1 SAR Imagery)</p> <p>Harry Clayton* (Long-term remote sensing observations of terminus position change and structural glaciology at Ninnis Glacier, East Antarctica (1963-2021))</p>	
	Chairs: Will Harcourt, Rob Bingham	<p>Benjamin Davison (Modelling the effect of submarine iceberg melting on glacier-adjacent water properties)</p> <p>John Hillier (Identifying conditions that sculpted bedforms: Human insights to build an effective AI)</p> <p>Qiao Li (Identifying multi-day to sub-daily supraglacial lake change in Greenland from Sentinel 2 and Landsat 8 imagery using Google Earth Engine)</p> <p>Bradley Reed* (Modelling the retreat of Pine Island Glacier from a submarine ridge)</p> <p>Chris Stringer* (A remote view: how Google Earth Engine can provide an insight into Antarctica's dynamic ice-free areas)</p>	

	<p>Chairs: Will Harcourt, Rob Bingham</p>	<p>Leanne M Wake (The influence of geothermal heat flux on past Greenland Ice Sheet evolution)</p> <p>Holly E Wytiahlowsky* (A song of ice and sediment: a multi-decadal assessment of post-Little Ice Age glacial to paraglacial landscape change in the Upper Zemmgrund, Austria)</p>
<p>17:00</p>	<p>Guest Lecture</p>	<p>Arctic Full Circle: Georgia Rose Murray is a Scottish Landscape Artist and Lecturer, who has worked alongside scientists over the last 6 years, responding to each season above the Arctic Circle. In this guest lecture Georgia will discuss her experiences in the Arctic, and how these inform her art and research. Find out more at: www.georgiarosemurray.com.</p>
<p>18:00</p>	<p>Gathertown Social</p>	
<p>20:00</p>	<p>Day ends</p>	

DAY 3:**SCIENTIFIC SESSIONS AND BB AGM:**

Wed 8th Sept	Session	Presenter	Presentation title
12:30	(7) Carbon, Meltwater, Weathering and Biogeochemistry Chairs: Dylan Beard, James Lea	Ewa Poniacka	An insight into miniature habitats on glaciers: why should we care about cryoconite holes?
		Alicia M Rutledge	Silica export due to alteration at alpine glaciers
		Liz Bagshaw	CO2 impact of contemporary Greenland ice sheet melt
		Andrew Twelves*	Interactions between ocean colour, basal melting and carbon uptake in the Amundsen Sea
13:30	Break and virtual socialising on Zoom and/or Kumospace		
14:00	(8) Subglacial environments Chairs: Alex Bradley, Marianne Haseloff	Glenn Jones	Shallow seismic structure beneath the Greenland Ice Sheet and implications for ice dynamics
		Helen Ockenden*	Inverting ice surface elevation and velocity for bed topography beneath Thwaites Glacier
		Kasia Warburton*	Shear dilation in granular till modifies subglacial sliding rates
		Michael McPhail	The influence of surface to bed hydrology on ice flow, new results from BISICLES
15:00	IGS BB AGM		
15:15	Break and virtual socialising on Zoom and/or Kumospace		
15:45	(9) Remote Sensing of the Cryosphere 2 Chairs: Nathaniel Baurley, Anne Le Brocq	Liam Taylor*	Accelerated mass loss and rising ELAs of glaciers in the Peruvian Andes
		Max. Van Wyk de Vries*	Measuring ice thickness and volume across the northern Andes: a remote sensing approach
		Connor Shiggins*	Automated iceberg detection using Google Earth Engine and ArcticDEM
		Anna Crawford	Improving Canadian Arctic offshore products with iceberg and ice island datasets
16:45	Awards and closing remarks		
17:00	Meeting ends		