WAIS 2018 Agenda

Sunday, September 16

4:00 pm	Registration: Pick up badges	
4:30 pm	Poster set up	
4:30 - 6:00 pm	WAIS Science Steering Group Meeting	Seminar 2&3 by the Auditorium

6:30 pm	Icebreaker (cash bar) and Dinner	Dining Hall

Monday, September 17

Time / Session	**Topic / Event**	**Location**
7:30-8:20 AM	Breakfast	
8:20-8:30	Opening business	
Session 1 8:30-10:30 / 6 talks (15 mins)	**Deep Space Nine: HUGhEs IDEAS – an appreciation of Terry Hughes**	**Presenters**
8:30	Bathymetric control of Ross Ice Shelf stability [Abstract]	Kirsty Tinto
8:45	Across the Great Divide: The Flow-to-Fracture Transition and the Future of the West Antarctic [Abstract]	Richard Alley
9:00	Towards Process-based Models of Marine Ice-cliff instability [Abstract]	Doug Benn
9:15	Multi-Decadal Observations of the Antarctic Ice Sheet from Archival Radar Film [Abstract]	Dusty Schroeder
9:30	Stopping the Flood: Could We Use Targeted Geoengineering to Mitigate Sea Level Rise from Important Ice Streams or Outlet Glaciers? [Abstract]	Mike Wolovick
9:45	The grounding line stability and dynamics of marine ice sheets in low driving/basal stress regime [Abstract]	Olga Sergienko
10:00-10:30	Coffee & Discussion	
Session 2 10:30-12:00 / 6 talks (15 mins)	**Inmates of Rura Penthe: Basal and Ice Shelf processes**	
10:30	Fast-Ice modulation of ice-shelf flow through structural buttressing [Abstract]	Erin Pettit
10:45	Multi-Decadal Basal Melt Rates from Airborne Radar for Ross Ice Shelf, Antarctica [Abstract]	Indrani Das
11:00	The calm, cool deep: Direct observation of ice, ocean and sea floor sediments under the Ross Ice Shelf, Antarctica [Abstract]	Christina Hulbe

11:15	Interannual to Sub-Daily Fluctuations in Thwaites Glacier Speed Associated with Calving and Ocean Forcing [Abstract]	Andrew Hoffman
11:30	A surface meltwater budget for ice shelves: a case study over Petermann, Greenland [Abstract]	Alexandra Boghosian
11:45	Bathymetry beneath the Getz Ice Shelf from IceBridge gravity data [Abstract]	James Cochran
12:00-12:30 PM	Discussion	
12:30-1:30	Lunch	
Session 3 1:30-3:30 / 8 talks (15 mins)	**Q-LESS: Subglacial Water, Bed, and Bergy Bits**	
1:30	Reconciling conflicting observations of active subglacial lakes: A case study on lower Mercer and Whillans ice streams [Abstract]	Matt Siegfried
1:45	Inferring the Sliding Law Exponent Using Time-Dependent Surface Velocity Observations [Abstract]	Brent Minchew
2:00	Experimental determination of a sliding rule for soft-bedded glaciers [Abstract]	Lucas Zoet
2:15	Streaks of basal icequakes, subglacial geomorphology, and the evolving basal boundary of the Whillans Ice Plain [Abstract]	Grace Barcheck
2:30	Early development and evolution of an ice dome on Roosevelt Island [Abstract]	Reed Scherer
2:45	The Re-grounding of the Henry Ice Rise Inferred from Ice-Penetrating Radar [Abstract]	Martin Wearing
3:00	The long-term sedimentary environment in Subglacial Lake Ellsworth, West Antarctica [Abstract]	Andy Smith
3:15	Seasonal iceberg distribution changes in the Amundsen Sea [Abstract]	Aleksandra Mazur
3:30-4:00	Coffee & Discussion	
4:00-4:30	Poster introductions: 1-minute "Lightning talks"	today's poster presenters
4:30-6:00	Poster Session 1 & Beer	
6:00-6:30	Relax	
6:30	Dinner	

Tuesday, September 18

Time / Session	Topic / Event	
7:30-8:20 AM	Breakfast	
8:20-8:30	Opening business	
Session 4 8:30-10:30 / 6 talks (15 mins)	**The Cloud Minders: Modeling**	
8:30	Advancing process-based models of shear margins to enable model-data integration [Abstract]	Jenny Suckale

8:45	How accurately should we model ice shelf melt rates? [Abstract]	Daniel Goldberg
9:00	Bed Character of Thwaites Glacier: Implications for Stability [Abstract]	Emily Schwans
9:15	Snowfall on Thwaites Glacier: climatology, variability, and large-scale drivers [Abstract]	Jan Lenaerts
9:30	Coupled ice shelf-ocean modeling for glaciers in the Amundsen Sea [Abstract]	Jan De Rydt
9:45	Recent foehn-induced melt over the Larsen C Ice Shelf: from the atmosphere to the snowpack [Abstract]	Tri Datta
10:00-10:30	Coffee & Discussion	
Session 5 10:30-12:00 / 6 talks (15 mins)	**All Our Yesterdays: Paleo**	
10:30	LGM and post-LGM Paleodrainage Reconstruction and Timing of Ice Sheet Retreat in the Western Ross Sea [Abstract]	John Anderson
10:45	Thinning at the divide during the last glacial-interglacial transition) [Abstract]	Perry Spector
11:00	Paleoclimatology and the pressing question: how much Antarctic sea-level rise, how fast? [Abstract]	Peter Neff
11:15	Past glacier behavior around the northern Antarctic Peninsula during the Holocene and possible causes [Abstract]	Mike Kaplan
11:30	Is breaking up hard to do? Clues from the sea bed [Abstract]	Rob Larter
11:45	Synchronous onset of deglaciation in the western and eastern Ross Sea at ~13ka [Abstract]	T.J. Fudge
12:00-12:30 PM	Discussion	
12:30-1:30	Lunch	
Session 6 1:30-3:30 / 8 talks (15 mins)	**Transwarp Drive: Innovative Observations- Radar/Laser Altimetry/Seismics/GPS Networks**	
1:30	Investigating Ice Sheet – Solid Earth Feedbacks in West Antarctica: New constraints from the POLENET-ANET GPS & Seismic Network [Abstract]	Terry Wilson
1:45	Reinterpreting the Global Paleo-Ice Sheet Record through Observed, In Situ Subglacial Landforms at Thwaites Glacier [Abstract]	Nick Holschuh
2:00	Time-varying freshwater fluxes from Antarctic ice shelves estimated using satellite altimetry [Abstract]	Sushil Adusumilli
2:15	Seismic evidence of variable bed conditions beneath Thwaites Glacier, West Antarctica [Abstract]	Atsu Muto
2:30	Seismic acoustic impedance, effective pressure, and basal drag [Abstract]	Rob Arthern
2:45	Role of melt forcing in diurnal velocity fluctuations of Helheim Glacier, East Greenland [Abstract]	Laura Stevens

3:00	Characterizing the onset of fast flow at Institute Ice Stream [Abstract]	Elisa Mantelli
3:15	Introduction to the SCAR Earth Observation Action Group (EOAG) [Abstract]	Anna Hogg
3:30-4:00	Coffee & Discussion	
4:00-4:30	Poster introductions - 1 minute each "Lightning talks"	today's poster presenters
4:30-6:00	2nd Poster Session & Beer	
6:00-6:30	Relax	
6:30	Dinner	

Tuesday Evening, post-dinner: informal discussion on inclusivity, diversity, and code of conduct for WAIS and Antarctic research -- at the picnic tables, weather permitting.

Wednesday, September 19

Time / Session	Topic / Event	Location
7:00-8:00 AM	Breakfast at Stony Point Center	SPC Dining Hall
8:00-9:00	Buses to LDEO Monell Hall	Get On The Bus!
9:00-9:10	**Venue: Lamont Doherty Earth Observatory, Monell Hall** Introduction to Lamont: Dr. Sean Solomon, Director, LDEO	
Session 7 / 6 talks (15 mins)	**The Doomsday Machine: Thwaites Glacier, Amundsen Sea and the future of the West Antarctic Ice Sheet**	**Presenters**
9:10	Keynote on WAIS, ice shelves and an outlook for ice-ocean-climate research in Antarctica	Robin Bell
9:30	Pathway of Circumpolar Deep Water into Pine Island and Thwaites ice shelf cavities and to their grounding lines [Abstract]	Yoshi Nakayama
9:45	Climatic Thresholds for WAIS Retreat: Onset of Widespread Ice Shelf Hydrofracturing and Ice Cliff Calving in a Warming World [Abstract]	Rob De Conto
10:00	Seaglider and Float Observations Beneath Dotson Ice Shelf, West Antarctica [Abstract]	Pierre Dutrieux
10:15	Drill Records from the Amundsen Sea Embayment Continental Shelf to test West Antarctic Ice Sheet History [Abstract]	Julia Wellner
10:30	Hi-res model illustrates how melting ice impacts coastal carbon cycle [Abstract]	Patricia Yager

10:45-11:00	Coffee & Discussion	
Session 8 / 5 talks (20 mins)	**The Tholian Web:** **Introduction to the International Thwaites Glacier Collaboration** Joint Session of WAIS Workshop and ITGC Program(me)	
11:00	Introduction to International Thwaites Glacier Collaboration & role of Science Coordination Office (SCO)	Ted Scambos & David Vaughan
11:20	ITGC project: THOR	Julia Wellner & Rob Larter
11:40	ITGC project: DOMINOS	Doug Benn & Jeremy Bassis
12:00	ITGC project: PROPHET	Mathieu Morlighem & Hilmar Gudmundsson
12:20	ITGC project: TARSAN	Karen Heywood & Erin Pettit
12:40 - 1:40	Lunch Outside - Stony Point box lunches	

Session 9 / 5 talks (20 mins)	**The Tholian Web, continued:** **Introduction to the International Thwaites Glacier Collaboration**	Presenters
1:40	ITGC project: GHOST	Andy Smith & Sridhar Anandakrishnan
2:00	ITGC project: MELT	David Holland & Keith Nicholls
2:20	ITGC project: TIME	Poul Christoffersen & Slawek Tulaczyk
2:40	ITGC project: GHC	Jo Johnson & Brent Goehring
3:00	WAIS Ends	contact SPC to arrange airport transport

Poster Session 1, Monday afternoon: The Vulcan Mind Meld

Poster	Presenter
Significant Mass Loss for Bahía del Diablo Glacier, Antarctic Peninsula [Abstract]	Sebastian Marinsek (Invited poster)
George VI Bathymetry from Inversion of NASA OIB Gravity Anomalies [Abstract]	David Porter (Invited poster)
Dynamics of Scar inlet Ice Shelf and persistent fast sea ice [Abstract]	Adrian Luckman (Invited poster)
Radar-detected englacial debris in the West Antarctic Ice Sheet [Abstract]	Kate Winter
Using airborne radar data to identify basal crevasses [Abstract]	Ching-Yao Lai
Using radio-wave attenuation to constrain ice temperature in regions of fast flow [Abstract]	Benjamin Hills
Radar reflections from basal ice may be misinterpreted as frozen bed [Abstract]	Neil Foley
Fiber Laser Drilling in Artificial Ice Cores [Abstract]	Merlin Mah
Development of a snow-firn-ice surface mass balance treatment for ice sheet models [Abstract]	David Pollard
Remote sensing methods of analyzing wintertime meltwater storage on the Amery Ice Shelf, East Antarctica [Abstract]	Julian Spergel
Near-surface environmentally forced changes in the Ross Ice [Abstract]	Rick Aster
Low viscosity mantle feedback in Amundsen Sea Embayment dynamics [Abstract]	Samuel Kachuck
Ice-shelf calving: on the importance of ice rheology [Abstract]	Cyrille Mosbeux
Ice Cliffs: A Region Primed for Enhanced Flow or Failure? [Abstract]	Byron Parizek
Anatomy of the Marine Ice-cliff instability [Abstract]	Jeremy Bassis
The impact of bed elevation resolution on Thwaites Glacier ice dynamics [Abstract]	Felicity McCormack
Autonomous Observations of Ocean Pathways from the ACC to the Amundsen Sea Slope [Abstract]	James Girton
Identifying the drivers of Pine Island Glacier's acceleration and thinning from 1996 to 2011 using ISSM and Automatic Differentiation [Abstract]	Ellen Robo
Grounding-Line Stabilization at the Mouths of Liv and Amundsen Glaciers, Southern Ross Embayment, in the Late Holocene [Abstract]	Brenda Hall
Tidally Modulated Microseismicity Near the Grounding Zone of the Whillans Ice Plain: Observations and Analysis of Seismic Source [Abstract]	Em Schnorr
Far-field GIA contribution to space-gravimetric mass trends in Antarctica [Abstract]	Lambert Caron

A Nye's Zero Stress Damage Model for Full Stokes Glacier Flow [Abstract]	Brandon Berg
Linking sea surface temperatures with ocean temperature changes and glacier discharge [Abstract]	Tasha Snow
Science education poster, animation display	Marlo Garnsworthy
Under ice shelves with HROV Icefin: McMurdo, Ross & soon Thwaites [Abstract]	Britney Schmidt

Poster Session 2, Tuesday Afternoon: The Picard Maneuver

Poster	Location
How accurately can we predict the rate of marine ice sheet collapse in West Antarctica? [Abstract]	Alex Robel (Invited poster)
Bed of Thwaites Glacier from existing marine geophysical datasets [Abstract]	Kelly Hogan (Invited poster)
Evidence of Basal Water Flow from the Bentley Subglacial Trench Controls on the Western Upstream Margin of Pine Island Glacier, West Antarctica [Abstract]	Winnie Chu
Simulating Antarctic bed topography to quantify uncertainty in subglacial water storage [Abstract]	Emma Mackie
Rethinking Ice Shelf Vulnerability: Grounding Lines, Meltwater and Ice Shelf Fronts [Abstract]	Robin Bell
Freeze-on beneath ice streams: enthalpy physics and ice stream discharge events [Abstract]	Colin Meyer
Pedestaled, relict lakes on the McMurdo Ice Shelf, Antarctica: formation and effects on ice-shelf stability [Abstract]	Alison Banwell (Invited poster)
Channelized melting drives thinning under a rapidly melting Antarctic ice shelf [Abstract]	Noel Gourmelen
The internal structure of Brunt Ice Shelf as an analogue for the Western Getz Ice Shelf [Abstract]	Edward King
Dynamic small-scale morphology and mass-loss processes near the front of Ross Ice Shelf [Abstract]	Maya Becker
Controls on marine primary productivity in a coastal polynya receiving large iron inputs from melting West Antarctic ice shelves [Abstract]	Hilde Oliver
The bathymetric and subglacial hydrological context for basal melting of the Getz Ice Shelf, West Antarctica [Abstract]	Wei Wei
Pressure pulses in subglacial drainage systems [Abstract]	Timothy Creyts
Subglacial hydrology and ice shelf processes from helicopter-based geophysical observations [Abstract]	Lucas Beem
Heat and groundwater transport between the Antarctic Ice Sheet and subglacial sedimentary basins from electromagnetic geophysical measurements [Abstract]	Bernd Kulessa
Paleogene terrestrial and marine development of the West Antarctic rift system [Abstract]	Jason Coenen

Delay between a paleo-ice-shelf collapse and grounding-line retreat in eastern Ross Sea [Abstract]	Philip Bart
New Constraints on Last Glacial Maximum Ice Thickness around the Weddell Sea Embayment using in situ C-14 [Abstract]	Keir Nichols
Early- to Mid-Holocene ice sheet thinning at Mt Murphy [Abstract]	Joanne Johnson
Ocean temperature in the Amundsen Sea since the Last Glacial Maximum [Abstract]	James Smith
Retreat of Thwaites Glacier, West Antarctica, over the next 100 years with various ice flow models and parameterizations [Abstract]	Hongju Yu
Sensitivity of Smith Glacier to Melt Variability, Marginal Weakening, and Terminal [Abstract]	David Lillien
Environmental controls on ice tongue stability in the west Antarctic Peninsula [Abstract]	Kiya Riverman
Bathymetry and bed conditions of Subglacial Lake CECs, West Antarctica [Abstract]	Alex Brisbourne
Contextualizing satellite-era models of snow accumulation with an observationally constrained 200-year reconstruction [Abstract]	Brooke Medley
The United States Antarctic Program Data Center (USAP-DC): Recent Developments [Abstract]	Frank Nitsche