

Pre-Meeting Wednesday, September 24, 2014

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| 3:00 to 7:00 | Workshop check in | |
| 4:30 - 6:00 | Open Discussion on the WAIS Science Plan | Griffin Hall |
| 6:30 | Dinner and icebreaker | Poster Hall & Dining Hall |

Day 1 Thursday, Sept 25

7:30-8:30- Breakfast and check in (Dining Hall/then Griffin Hall)

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| 8:30 | Welcome and logistics | Helen Fricker, Ted Scambos, Jason of Camp Cedar Glen |
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Session 1 Marine ice sheet instability (“The Girl’s a Super-Freak”)

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| 8:45 | Impact of Improved Ice-Front Physics on Models of West Antarctic Ice Sheet Response to Climate Warming | Robert de Conto |
| 9:00 | Modelling the PIG+Thwaites system | Hilmar Gudmundsson |
| 9:15 | The influence of sea-level changes on ice-sheet evolution in Antarctica | Natalya Gomez |
| 9:30 | Response of the Antarctic ice sheet to ocean forcing using the POPSICLES coupled ice sheet-ocean model | Daniel Martin |
| 9:45 | Towards better simulations of ice/ocean coupling in the Amundsen Sea Sector, West Antarctica, using a coupled ocean, sea-ice, and ice-sheet model | Eric Larour |
| 10:00 | Discussion | Discussion |

10:15-10:45 Coffee

Session 2 Observations of West Antarctic Ice Sheet Change “Times they Are A-changing”

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| 10:45 | Irreversible changes in the northern part of WAIS: a view from above and below | Eric Rignot |
| 11:00 | Cryosat: a new perspective on Antarctic ice sheet elevation changes (WAIS & Peninsula) | Andy Shepherd |
| 11:15 | Recent Changes in Ice Mass Balance of the Amundsen Sea Sector | Tyler Sutterly |
| 11:30 | Larsen-B and -C Ice Shelf Velocities Revisited | Bernd Scheuchl presented by Eric Rignot |
| 11:45 | Eighteen years of height and mass changes in West Antarctic Ice Shelves | Fernando Paolo |
| 12:00 | Discussion | Discussion |

12:15-2:00 lunch and posters

Session 3 Ice-ocean interaction in Antarctica (“Surfin’ USA”)

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| 2:00 | Ocean Variability Contributing to Basal Melt Rate Near the Ice Front of Ross Ice Shelf, Antarctica | Laurie Padman |
| 2:15 | An Oceanic Heat Transport Pathway to the Amundsen Sea Embayment | Angelica Gilroy |
| 2:30 | Ocean-driven basal melt channels and the stability of Amundsen and Bellingshausen Sea ice shelves | Karen Alley |
| 2:45 | Modeling the spreading of glacial melt water from the Amundsen and Bellingshausen Seas | Yoshihiro Nakayama |
| 3:00 | Sensitivity of ice shelf basal melting to ocean forcing | Ben Galton-Fenzi |
| 3:15 | Discussion | Discussion |

See Poster list at end of document

3:30 - 4:00 Coffee/tea break

Session 4 Grounding zones around WAIS (“I Get Around”)

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| 4:00 | The nature and dynamics of the bed beneath Pine Island Glacier, Antarctica | Rob Bingham |
| 4:15 | The influence of geological fabric on grounding line dynamics in the Amundsen Sea | Kirsty Tinto |
| 4:30 | Characterizing the Location and Extent of the Thwaites Glacier Grounding Zone Using Airborne Radar Sounding | Dustin Schroeder |
| 4:45 | Tidal Flexure and Associated Seismic Activity Near the Grounding Zone of Beardmore Glacier | Paul Winberry |
| 5:00 | Satellite Observations of Ice Thickness and Deformational Properties in Antarctic Grounding Zones | Oliver Marsh |
| 5:15 | Discussion | Discussion |

5:30 End of sessions for the day

6:30 Dinner

Day 2 Friday, Sept 26

7:30 Breakfast

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| 8:30 | WAIS meeting outlook for 2015 | Helen Fricker, Ted Scambos |
| 8:45 | NSF Program Officers | Julie Palais, Lisa Clough, Paul Cutler |
| 9:00 | WAIS Divide Outcomes | TJ Fudge |
| 9:20 | NAS Study: ‘Strategic Vision for NSF investments in Antarctic and Southern Ocean Research’ | Laurie Geller NAS |
| 9:40 | Strategic Antarctic Science discussion | All |

10-10:30 Coffee break

Session 5 Climate, Accumulation ('It Never Rains in California')

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| 10:30 | Variability of Accumulation Rates from ERA-Interim and RACMO and Impacts on West Antarctic Mass Balance Estimates | Jay Zwally |
| 10:45 | It's a wet, wet WAIS: observations of current and historical snow accumulation from the Amundsen Sea sector | Brooke Medley |
| 11:00 | A Rossby Wave Bridge from the Tropical Atlantic to West Antarctica | Xichen Li |
| 11:15 | Central West Antarctic Accumulation: annual resolution for the past 31 ka | TJ Fudge |
| 11:30 | Localized Sea Ice Changes in the Amundsen Sea | Sharon Stammerjohn |
| 11:45 | Discussion | Discussion |

12:00-2:30 Lunch, Posters, Activities

Session 6 Rogue Waves, Rogue Water, and Rogue's Gallery ('Wish They All Could Be California Girls')

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| 2:30 | Measuring Wave-Induced Vibrations on the Ross Ice Shelf | Peter Bromirski |
| 2:45 | Predicting the Presence of a Firn Aquifer on the Antarctic Peninsula using C-Band Satellite-Borne Scatterometry | J.Z. Miller |
| 3:00 | Observations of sea ice and ice sheet interaction in Greenland and the Antarctic Peninsula | Twila Moon |
| 3:15 | Climate, Sea Ice, and Ocean Precursors to the Larsen Ice Shelf Disintegrations | Ted Scambos |
| 3:30 | Discussion | Discussion |

3:45 – 4:00 Coffee Break**Session 7 Ice Divides and Traverses -- “Truckin’ “**

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| 4:00 | Evidence of WAIS Loss during MIS 5e: Siple Dome and more | Richard Alley |
| 4:15 | Holocene stability of the Amundsen-Ross ice divide, Central West Antarctica | Michelle Koutnik |
| 4:30 | iSTAR: UK ice sheet traverse across Pine Island Glacier drainage basin | Andy Smith |
| 4:45 | 2014 over-snow traverse to the ice divide between Pine Island, Rutford and Institute Ice Stream, WAIS | Jonathan Oberreuter |
| 5:00 | Subglacial conditions and ice flow across the Weddell Sea sector of West Antarctica: synthesis from recent aerogeophysical surveys | Robert Bingham |
| 5:15 | Discussion | Discussion |

5:30 End of sessions for the day**6:30 Dinner**

Day 3 Saturday, Sept 27**8:30 Breakfast****Session 8 Subglacial Hydrology -- “Slip-Sliding Away”**

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| 9:00 | Multiple Modes of Refreezing Meltwater beneath Ice Sheets | Robin Bell |
| 9:15 | Half-full of half-empty? Informing a model of subglacial lake drainage with observations of surface motion | Sasha Carter |
| 9:30 | A Model for Subglacial Flooding Along a Pre-existing Hydrological Network During the Rapid Drainage of Supraglacial Lakes | Surendra Adhikari |

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| 9:45 | Shallow Sub-Permafrost Groundwater Systems in a Buried Fjord: Taylor Valley, Antarctica | Neil Foley |
| 10:00 | Measurements of basal change properties from repeat radar measurements | Sridhar Anandakrishnan |
| 10:15 | Discussion | Discussion |

10:15-10:45 coffee break

Session 7 WISSARD project results (“Witchy Woman”)

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| 10:45 | Environment and Processes of Subglacial Lake Whillans, West Antarctica | Ross Powell |
| 11:00 | Inference of grounding-zone properties from radar basal reflectivity, dielectric modeling, and basal-echo phase analysis | Knut Christianson |
| 11:15 | Interfacial stresses at the grounding line of the Whillans Ice Plain control the initial stick-slip rupture speed | Jacob Walter |
| 11:30 | Spatial Heterogeneity in Ice-bed Interactions Revealed by Variable Seismic Coupling and Basal Seismicity on the Whillans Ice Plain, West Antarctica | Grace Barcheck |
| 11:45 | Interruption of the Whillans Ice Stream stick-slip cycle by a subglacial lake discharge event | Matthew Siegfried |
| 12:00 | Final Discussion | Final Discussion |

12:30 Lunch and Adjourn (can stay at Camp Cedar Glen all afternoon)

Posters

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| | Change in the Stick-Slip Cycle of Whillans Ice Stream, West Antarctica | Lucas Beem |
| | Defining models of glacial isostatic adjustment in West Antarctica and the Antarctic Peninsula | Alex Brisbane |

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| | <u>(UKANET): better constraints on Earth structure and uplift</u> | |
| | <u>New high resolution views of the bed of Pine Island Glacier, West Antarctica</u> | Davies, Bingham |
| | <u>Effects of sub-glacial transport and shearing on siliceous microfossils found in sediments from the Siple Coast region of West Antarctica</u> | Jason Coenen |
| | <u>The first geothermal heat flux measurement below the West Antarctic Ice Sheet</u> | Andrew Fisher, presented by Slawek Tulaczyk |
| | <u>Seeking YOUR input for a National Academy of Sciences' study: "A Strategic Vision for Antarctic and Southern Ocean Research"</u> | Laurie Geller |
| | <u>A connectionist approach to mapping deformation in fast-moving glaciers</u> | Ute Herzfeld |
| | <u>Late Quaternary history of Hatherton Glacier, Antarctica</u> | Trevor Hillebrand, presented by John Stone |
| | <u>Bistatic radar case studies from Antarctica and Greenland</u> | Nicholas Holschuh |
| | <u>Feedbacks Between the Labrador Sea Dynamics and Freshwater Runoff in the Regional Arctic System Model</u> | Saffia Hossainzadeh |
| | <u>Advanced Ice Velocity Mapping Using Landsat 8</u> | Marin Klinger |
| | <u>Subglacial conditions as inferred from small repeating earthquakes</u> | Brad Lipovsky |
| | <u>The ARM West Antarctic Radiation Experiment (AWARE)</u> | Dan Lubin |

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| | <u>Understanding Interactions Between Different Cryosphere Elements: A New WCRP CliC (Climate and Cryosphere) Targeted Activity</u> | Rob Massom, presented by Ben Galton-Fenzi |
| | <u>Ice flow over plastic beds</u> | Brent Minchew |
| | <u>Large-Ensemble modeling of past Antarctic variations in the Amundsen Sea Embayment</u> | David Pollard |
| | <u>Recent Changes of Surface Velocities at Byrd Glacier</u> | Gang Qiao |
| | <u>Measuring Changes in the Vicinity of the Seal Nunataks Ice Shelf Remnant from Imagery and Altimetry</u> | Christopher Shuman |
| | <u>Modeling the Elastic Transmission of Tidal Stresses to Great Distances Inland in Channelized Ice Streams</u> | Jeffrey Thompson, presented by Mark Simons |