

PARCA 2017
Tuesday, January 24
8:30 AM – 5:15 PM

- 8:30 Opening & Logistics**
Kelly Brunt, NASA Goddard Space Flight Center, University of Maryland
- 8:35 Welcome to Goddard Space Flight Center**
Thorsten Markus, Lab Chief, Cryospheric Sciences, NASA Goddard Space Flight Center
Jim Irons, Deputy Director, Earth Sciences Division, NASA Goddard Space Flight Center
- 8:45 The View from Headquarters**
Charles Webb, NASA Headquarters
Tom Wagner, NASA Headquarters
- 9:00 Ocean impacts on glacier motions at Petermann Gletscher in North Greenland**
Andreas Münchow, University of Delaware
- 9:15 Recent advances in bathymetry mapping from the NASA OMG mission.**
Eric Rignot, University of California, Irvine
- 9:30 Modeling ice front Dynamics of Northwest Greenland in response to ocean thermal forcing, using ISSM and OIB/OMG data**
Mathieu Morlighem, University of California, Irvine
- 9:45 Recent summer atmospheric circulation changes over the Arctic drive a new partitioning of the Greenland ice sheet mass losses**
Marco Tedesco, Columbia University
- 10:00 A regression analysis of basin-scale melt area on the Greenland Ice Sheet with MERRA-2**
Richard Cullather, NASA Goddard Space Flight Center
- 10:15 Rise in central west Greenland surface melt unprecedented over the last three centuries**
Luke D. Trusel, Rowan University

10:30 BREAK ☺
COFFEE FOR PURCHASE AT THE BUILDING 34 CAFÉ

- 10:45 The effects of blocking ice layers on compaction, runoff and surface mass balance of Greenland's percolation zone**
Mike MacFerrin, University of Colorado
- 11:00 Direct measurements of meltwater runoff on the Greenland ice sheet**
Laurence C. Smith, University of California, Los Angeles
- 11:15 Toward a better understanding of Greenland's firn aquifer from airborne and space borne remote sensing, modeling, and observations**
Richard Forster, University of Utah
- 11:30 Delivery of water from the East Greenland firn aquifer to the bed through crevasse hydrofracture**
Kristin Poinar, NASA Goddard Space Flight Center
- 11:45 Modelling channelized surface drainage of supraglacial lakes**
Jonathan Kingslake, Columbia University
- 12:00 Greenland ice sheet freshwater export to surrounding oceans**
Asa K. Rennermalm, Rutgers

12:15 LUNCH ☺
LUNCH FOR PURCHASE AT THE BUILDING 34 OR BUILDING 33 CAFES

- 1:15 Using remotely sensed data from AIRS to estimate the vapor flux on the Greenland Ice Sheet: comparisons with observations and a regional climate model**
Linette N. Boisvert, University of Maryland
- 1:30 Stationary Radio Sounding Time Series Observations: Challenges and Opportunities**
Dustin Schroder, Stanford University
- 1:45 The Ultra-Wideband Software-Defined Radiometer (UWBRAD) for Ice Sheet Internal Temperature Sensing: Recent Experiments**
Joel T. Johnson, The Ohio State University
- 2:00 Music for Climate Science**
Matthew Burtner, University of Virginia

2:15 BREAK ☺
COFFEE FOR PURCHASE AT THE BUILDING 34 CAFE

- 2:45 Freshwater flux in a major Greenland glacier-fjord system**
David Sutherland, University of Oregon
- 3:00 The correlation between calving size and glacier speed – or lack thereof**
Ryan Cassotto, University of New Hampshire
- 3:15 Ice-dammed lake drainage in West Greenland: implications on bedrock and ice**
Kristian K. Kjeldsen, University of Copenhagen, Denmark
- 3:30 Surface characteristics and topography of Southwest Greenland during the first 3 years of ICESat-1 (2004 – 2006)**
Shane Grigsby, University of Colorado
- 3:45 High Resolution Topographic Mapping of the Ice Sheets**
Ian Howat, The Ohio State University
- 4:00 Greenland Ice Mapping Project: Measuring rapid ice flow**
Laura Kehrl, University of Washington
- 4:15 Pervasive change in Greenland's outlet glaciers**
Mark Fahnestock, University of Alaska, Fairbanks, University of New Hampshire
- 4:30 Evaluation of Greenland surface mass balance models using GRACE, ICESat-1 and OIB altimetry data**
Isabella Velicogna, University of California, Irvine
- 4:40 Surface Mass Balance Workshop - Outcome**
Marco Tedesco, Columbia University
- 4:50 The Greenland Telescope - Status**
Ming-Tang Chen, Academia Sinica
- 5:00 In Memoriam: Gordon Hamilton**
David Sutherland, University of Oregon

5:30 POSTER SESSION & COCKTAIL HOUR 🍸

6:30 DINNER 🍴

GSFC RECREATIONAL CENTER

\$25 DUE AT THE DOOR

PARCA POSTERS
Tuesday, January 24
5:30 PM

GSFC Recreation Center, Building 92

Understanding sources of error in simulated Greenland ice sheet snow and firn densities
Patrick M. Alexander, NASA Goddard Institute for Space Studies

Dynamic evolution of the subglacial hydrologic system inferred from ice motion on the Western Greenland Ice Sheet
Lauren C. Andrews, NASA Goddard Space Flight Center

Impact of MODIS sensor calibration updates on Greenland ice sheet albedo trends
Kimberly A. Casey, NASA Goddard Space Flight Center

Drainage Cycles of Water-Filled Crevasses in Jakobshavn Isbræ as a Function of Conduit Creep Deformation
Casey Cavanagh, University of Maryland

Communicating Science with a Humanities Perspective in Support of the National Aeronautics and Space Administration (NASA) Operation IceBridge (OIB) Program
Sarah K. Claudy, U.S. Naval Academy

Large precipitation event impacts ice mass balance over Recovery Ice Stream, East Antarctica
Indrani Das, Columbia University

Developing a Small Unmanned Aircraft System to Support Polar Science Research
Jonathon Daus, U.S. Naval Academy

Outlet glacier catchment mass loss in response to terminus retreat
Denis Felikson, University of Texas at Austin

Energy-Conserving Coupling of Dynamic Ice Sheet with GCM Atmosphere
Elizabeth Fischer, NASA Goddard Institute for Space Studies

U. S. Naval Academy Polar Science and Technology Program (USNA PS&TP) and the National Aeronautics and Space Administration (NASA) Operation IceBridge (OIB) Program
Shawn G. Gallaher, U.S. Naval Academy

Subsurface Scattered Photons: Friend or Foe? Improving visible light laser altimeter elevation estimates, and measuring surface properties using subsurface scattered photons
Adam Greeley, University of Maryland

Determination of Greenland Surface Water Extent and Depth using Data from the 2015 ICESat-2 SIMPL-AVIRIS airborne campaign
David Harding, NASA Goddard Space Flight Center

Intercomparison of Surface Temperatures from AIRS, MERRA, and MERRA2, with NOAA and GCNet Weather Stations at the Summit of Greenland

Thomas J. Hearty, NASA Goddard Space Flight Center

Ground truth measurements of Greenland ice sheet snow compaction rates, specific surface area, albedo, and surface temperature via autonomous ice rover

Austin Lines, Dartmouth College

Development of an Ice-Capable Buoy to Support the National Aeronautics and Space Administration (NASA) Operation IceBridge (OIB) Program

Tong Ma, U.S. Naval Academy

Force Balance along Isunnguata Sermia, western Greenland

Toby Meierbachtol, University of Montana

Enhancement of NASA's Polar Research Missions: Adjoint Data Assimilation into Numerical Models to Reveal Physical Properties of the Greenland Ice Sheet

Toby Meierbachtol, University of Montana

Understanding changes in ice dynamics of southeast Greenland glaciers from high resolution OIB gravity data, OMG and satellite remote sensing observations

Romain Millan, University of California, Irvine

Mapping Greenland's firn aquifer from space using active and passive microwave remote sensing

Julie Z. Miller, The Ohio State University

Characterizing West Greenland ice sheet runoff losses from modeled and measured data

Samiah E. Moustafa, Rutgers

Exploring the use of Commercial Off-the-Shelf (COTS) Unmanned Quadcopters to Characterize Ice Surface Features

Alek Petty, NASA Goddard Space Flight Center

On the Utilization of Uncertainty Quantification to Interpret the Impact of Surface Radiation Budget Errors on Model Estimates of Greenland Surface Mass Balance and Regional Mass Balance

Nicole-Jeanne Schlegel, University of California, Los Angeles, Los Angeles

Comparison of Temperatures from Models and AWS with NOAA In Situ Data at the Greenland Summit

Christopher Shuman, University of Maryland, Baltimore County

Using ATM laser altimetry to constrain surface mass balance estimates and supraglacial hydrology of the Greenland Ice Sheet

Michael Studinger, NASA Goddard Space Flight Center

Greenland surface elevation change from CryoSat-2 radar altimetry and multi-mission lidar mapping

Tyler Sutterley, University of California, Irvine

Determining and interpreting detailed ice surface elevation changes of the glaciers in Upernavik Isstrøm, northwest Greenland, 1981-2014

Lindsay Wendler, University of Buffalo

Oceans Melting Greenland (OMG) bathymetric mapping of northwest Greenland via ship-based echo-sounding and airborne gravity, with insights into the recent behavior of its glaciers

Michael Wood, University of California, Irvine