Plenary and Parallel Session Oral Presentations

Monday 11 July

Plenary Lectures

0830-0915 PL1 **Reconciling views on Antarctic Neogene Glacial History**
Peter Barrett, Antarctic Research Centre, Victoria University of Wellington

0915-1000 PL2 **Antarctica and supercontinental evolution: clues and puzzles**
Ian Dalziel, University of Texas at Austin

1000-1030 Coffee

Parallel Session 1: Neogene Climate Evolution and Ice Sheet Response, an Antarctic margin perspective
Conveners: Richard Levy and Allan Ashworth
Part 1. Longer term trends

1030-1050 PS1.1 **Keynote: Progressive Cenozoic cooling in the Antarctic Peninsula and the demise of Antarctica's last refugium: a response to the development of circum-Antarctic circulation**
John Anderson, British Antarctic Survey

1050-1110 PS1.2 **Neogene tectonic and climatic evolution of the western Ross Sea – chronology of events from the AND-1B drillhole**
Gary Wilson, University of Otago

1110-1130 PS1.3 **Landscape analysis for reconstructing Cenozoic glacial history of northern Victoria Land (Antarctica)**
Carlo Baroni, University of Pisa

1130-1150 PS1.4 **Age and provenance of Miocene and Pliocene marine diatoms in the Meyer Desert Formation, Sirius Group, Dominion Range**
David Harwood, University of Nebraska-Lincoln

1150-1210 PS1.5 **A first seismostratigraphy of the Amundsen Sea Embayment, West Antarctica**
Karsten Gohl, Alfred Wegener Institute for Polar and Marine Research

1210-1230 PS1.6 **ANDRILL Coulman High Project, Ross Ice Shelf: An update**
Bruce Luyendyk, University of California

1230-1330 Lunch

Parallel Session 1 Contd.
Part 2. Early-Mid Neogene

1330-1350 PS1.7 **Keynote:Neogene ice-marginal climate from terrestrial records in the Transantarctic Mountains**
Adam Lewis, North Dakota State University

1350-1410 PS1.8 **The Early Miocene paleoclimate of the McMurdo Dry Valleys region of Antarctica**
Allan C. Ashworth, North Dakota State University

1410-1430 PS1.9 **Determining middle Miocene through Pliocene changes in provenance and basal ice conditions through sedimentological analyses of subglacial diamictites in AND-2A, Ross Sea, Antarctica**
Melissa Hansen, Montclair State University

1430-1450 PS1.10 **Changes in Miocene ice extent and paleobathymetry in the southern McMurdo Sound based on a continuous particle-size record coupled to facies characteristics in AND-2A**
Sandra Passchier, Montclair State University

1450-1510 PS1.11 **Quantification of aridity changes in Neogene Antarctic paleoenvironments using morphologic and carbon isotopic analyses of pollen**
Kathryn Griener, Louisiana State University

1510-1530 PS1.12 **Late Miocene East Antarctic ice sheet characteristics in northern Victoria Land – the myth of a Neogene step-change in thermal regime debunked?**
John L. Smellie, University of Leicester

1530-1600 Coffee

Parallel Session 1 Contd.

Part 3. Late Neogene

1600-1620 PS1.13 **Keynote: Antarctic and Southern Ocean influences in global Late Pliocene cooling**
Robert McKay, Victoria University of Wellington

1620-1640 PS1.14 **Late Neogene climate and glacial history of the Southern Victoria Land coast from integrated drill core, seismic and outcrop data**
Richard Levy, GNS Science

1640-1700 PS1.15 **Factors influencing changes in the Amery Ice Shelf system over the Neogene**
Philip E O'Brien, Macquarie University

1700-1720 PS1.16 **Modelling East Antarctica during the mid-Pliocene Warm Period: Understanding records of global sea level and ice sheet retreat**
Aisling Dolan, University of Leeds

1720-1740 PS1.17 **Pliocene configuration and dynamical sensitivity of an East Antarctic Ice Sheet outlet glacier**
Nicholas Golledge, Victoria University of Wellington

1740-1800 PS1.18 **Influence of a diminished West Antarctic Ice Sheet on paleoclimate in the Ross Embayment: impact on preservation of relict landforms in the McMurdo Dry Valleys**
Douglas Kowalewski, UMass, Amherst

Parallel Session 2: Antarctica and Supercontinent Evolution

Convener: Simon Harley

Part 1. Mesozoic Record in TAM and Marie Byrd Land

1030-1050 PS2.1 **The Mesozoic basin system of Antarctica**
Frank Lisker, University of Bremen

1050-1110 PS2.2 **Early Jurassic basin evolution in north Victoria Land: The transition from Beacon sedimentation to Ferrar magmatism**
Robert Schoener, University Erlangen

1110-1130 PS2.3 **New evidence on the existence of a Late Jurassic-Paleocene Victoria Land Basin from thermochronological studies in the Eisenhower Range, Transantarctic Mountains**
Jannis Prenzel, University of Breman

1130-1150 PS2.4 **U–Pb, O and Hf isotope investigation of sources for anatectic granites emplaced during Cretaceous wrench versus transtension in the Fosdick gneiss dome, Marie Byrd Land**
Christine Siddoway, The Colorado College

Part 2. Prydz Region and Neoproterozoic to Cambrian Assembly - east Gondwana

1150-1210 PS2.5 **Boron- and phosphate-rich rocks in the Larsemann Hills, Prydz Bay, East Antarctica: Evidence for early Neoproterozoic rifting in an active continental arc?**
Edward Grew, University of Maine

1210-1230 PS2.6 **Sm-Nd for tracing provenance of the Trinity Peninsula Group and correlated units, Antarctica: Implications for Late Paleozoic-Mesozoic Evolution of Gondwana Margin**
Renato Moraes, Mineralogia e Geotectônica, Instituto de Geociências - USP

1230-1330 Lunch

Parallel Session 2 Contd.

1330-1350 PS2.7 **Keynote: Bits and pieces: Neoproterozoic Antarctica and the assembly of Gondwana**
Ian Fitzsimons, Curtin University

1350-1410 PS2.8 **Multiple tectonothermal events in the Prydz Belt, East Antarctica: Implications for the evolution of supercontinents**
Xiaochun Liu, Chinese Academy of Geological Sciences

1410-1430 PS2.9 **Assembly of East Gondwana: New evidence from east Prydz Bay**
Simon L. Harley, University of Edinburgh

1430-1450 PS2.10 **Tracing source mixing in anatectic granites in the Fosdick Mountains, Marie Byrd Land through coupled Hf and O isotope analysis**
Chris Yakymchuk, University of Maryland

1450-1510 PS2.11 **The refined Precambrian geological history and isotopic Sm–Nd structure of the Prince Charles Mountains – the Princess Elizabeth Land, and some implications to its tectonic evolution**
Evgeny Mikhalskiy, VNIIOkeangeologia

1510-1530 PS2.12 **Keynote: Antarctica's cryptic suture**
Steve Boger, University of Melbourne

1530-1600 Coffee

Parallel Session 2 Contd.

Part 3. East African - Antarctic Orogen and Maud-Napier-India-Australia correlations

1600-1620 PS2.13 **Lateral extrusion, delamination and orogenic collapse of the ca. 600-500 Ma East African/Antarctic Orogen in northern Mozambique and Dronning Maud Land, East Antarctica**
Joachim Jacobs, University of Bergen

1620-1640 PS2.14 **Metapelitic gneisses from Austkampane, Sør Rondane Mountains, East Antarctica: contrasting metamorphic and fluid records in Neoproterozoic Gondwana assembly**
Tomokazu Hokada, National Institute of Polar Research

1640-1700 PS2.15 **Chemostratigraphy of metacarbonate rocks in the East African-Antarctic Orogen**
M. Satish-Kumar, Shizuoka University

1700-1720 PS2.16 **Comparative Metamorphic P-T studies of rocks from Balchanfjella, E. Sor Rondane, Antarctica and the Monapo Complex, N. Mozambique**
Geoffrey H. Grantham, Council for Geoscience

1720-1740 PS2.17 **U-Pb zircon and monazite ages from the Northampton Complex (Western Australia) and the Maud Belt (East Antarctica): implications for Rodinia correlations**
Anna K. Ksienzyk, University of Bergen

1740-1800 PS2.18 **Spatio-temporal and palaeomagnetic evidence for the Palaeoproterozoic supercontinental assembly of the Napier Complex of East Antarctica and the Southern India and Western Australia cratons**
Sarada Prasad Mohanty, Indian School of Mines

Parallel Session 3: Antarctic ice sheet and the Southern Ocean

Convener: Eric Wolff

1030-1050 PS3.1 **Thinning rates of Thwaites Glacier, West Antarctica from GPS and GLAS ICESat laser altimetry observations**
Sridhar Anandakrishnan, Penn State University

1050-1110 PS3.2 **Fimbulisen top to bottom: basal meltrates by glaciological and oceanographical means**
Angelika Humbert, University of Hamburg

1110-1130 PS3.3 **Pliocene East-Antarctic ice-rafting and orbital-scale variability at ODP Site 1165 on Antarctica's continental rise, off Prydz Bay**
Sandra Passchier, Montclair State University

1130-1150 PS3.4 **Testing the suitability of drift sediments offshore from the Antarctic Peninsula for high-resolution reconstructions of Antarctic palaeoclimate and palaeoceanography (IODP Proposal 732).**
Maryline Vautravers, University of Cambridge

1150-1210 PS3.5 **Basal topography of the Institute and Möller ice streams, West Antarctica: assessing the risk of grounding-line retreat**
Neil Ross, University of Edinburgh

1210-1230 PS3.6 **Late Pliocene initiation of a Ross sea spring polynya: diatom and geochemical evidence from the AND-1B core**
Christina Riesselman, US Geological Survey

1230-1330 Lunch

Parallel Session 3 Contd.

1330-1350 PS3.7 **Late Quaternary sea-ice cover in the SW Atlantic and its potential role in global deglaciation**
Claire S Allen, British Antarctic Survey

1350-1410 PS3.8 **Why are the deep-sea sediments of the Weddell Gyre virtually free of biogenic remains? A biogeochemical perspective**
Walter Geibert, University of Edinburgh

1410-1430

1430-1450 PS3.10 **Reconnaissance geochemical study of crustal heat production in the East Antarctic: implications for ice sheet modelling**
Chris Carson, Geoscience Australia

1450-1510 PS3.11 **Geological constraints on glacio-isostatic adjustment models of relative sea-level change during deglaciation of Prince Gustav Channel, Antarctic Peninsula**
Dominic Hodgson, British Antarctic Survey

1510-1530 PS3.12 **Modelling and observations of tidally induced variations in the flow of ice shelves and ice streams**
G. Hilmar Gudmundsson, British Antarctic Survey

1530-1600 Coffee

Parallel Session 4: The Scotia Sea
Conveners: Philip Leat and Jennifer Jackson

1600-1620 PS4.1 **The ancestors of an eastward-migrating Islands Arc Systems in the central Scotia Sea. Evidence from petrological analyses, seismic profiles, and swath bathymetric mapping**
Luis Somoza, Geological Survey of Spain

1620-1640 PS4.2 **Heat-flow determinations of basement age in small oceanic basins of the Central Scotia Sea**
Peter F Barker

1640-1700 PS4.3 **Mass-movement deposits and seismic activity in the southern Scotia Sea**
Fernando Bohoyo, Geological Survey of Spain

1700-1720 PS4.4 **Initiation and Evolution of Subduction Beneath the Scotia Sea: New Evidence from Dredging and Imaging of the Central Scotia Sea Floor**
Julian Pearce, Cardiff University

1720-1740 PS4.5 **Resolving the molecular phylogeny and divergence of Southern Ocean Limatula species (Bivalvia: Limidae) in the Scotia Arc**
Jennifer Jackson, British Antarctic Survey

1740-1800 PS4.6 **Closing the feedback loop: A biological perspective on the role of the Scotia Sea for our understanding of Antarctica**
Christoph Held, Alfred Wegener Institute for Polar and Marine Research

1800-1830 Break

Plenary Lecture

1830-1915 Pl3 **Deglacial history of Antarctica and rapid sea-level jumps: did meltwater pulse-1a come from Antarctica?**
Michael Bentley, Durham University

Tuesday 12 July

Plenary Lectures

0830-0915 Pl4 **Large Igneous Provinces and continental break-up: Evidence from Antarctica.**
Bryan Storey, University of Canterbury

0915-1000 Pl5 **Antarctic subglacial water systems - a frontier for interdisciplinary research**
Slawek Tulaczyk, University of California

1000-1030 Coffee

Parallel Session 5: Role of Mesozoic and Cenozoic Magmatism in the Evolution of Antarctica
Conveners: Philip Kyle and John Smellie

1030-1050 PS5.1 **Keynote: Jurassic magmatism in the evolution of Antarctica**
Philip Leat, British Antarctic Survey

1050-1110 PS5.2 **High-Precision U-Pb geochronology of the Ferrar Large Igneous Province**
Thomas Fleming, Southern Connecticut State University

1110-1130 PS5.3 **Initiation of the Ferrar Large Igneous Province: timing and petrogenetic evolution - evidence from north Victoria Land, Antarctica**
Lothar Viereck-Goette, Friedrich-Schiller-University

1130-1150 PS5.4 **The Jurassic Dufek-Forrestal layered mafic intrusion, Antarctica: stratigraphic variations of platinum-group elements and their petrogenetic implications**
Ricarda Hanemann, Friedrich-Schiller-University

1150-1210 PS5.5 **Geochemical and geodynamic analysis of Karoo-Ferrar-Maud mantle plume development in Antarctica**
Nadezda Sushchevskaya, Russian Academy of Sciences

1210-1230 PS5.6 **Silicic volcanism: an under valued component of large igneous provinces and volcanic rifted margins: The Chon Aike Province of Patagonia and the Antarctic Peninsula**
Teal Riley, British Antarctic Survey

1230-1330 Lunch

Parallel Session 5 Contd.

1330-1350 PS5.7 **Keynote: Sub-ice volcanism, ice sheets and global change**
John L. Smellie, University of Leicester

1350-1410 PS5.8 **Feedback between magmatic, tectonic and glacial processes in the West Antarctic Rift System**
Sergio Rocchi, University of Pisa

1410-1430 PS5.9 **Geochemical variations in alkaline magmas of HIMU affinity from continent to ocean, northwestern Ross Sea, Antarctica – constraints on mantle source, flow and melting for volcanism**
Kurt Panter, Bowling Green State University

1430-1450 PS5.10 **Late Miocene evolution of the Minna Bluff Volcanic Complex, Ross Embayment, Antarctica**
T. I. Wilch, Albion College

1450-1510 PS5.11 **Submarine and Subaerial Volcanism in the Ross Sea, Antarctica: Nature of the Mantle Sources and Bearing on Tectonic Evolution**
S. B. Mukasa, University of New Hampshire

1510-1530 PS5.12 **Antarctic tephrochronology: From visible layers to cryptotephra**
Nelia W. Dunbar, New Mexico Tech

1530-1600 Coffee

Parallel Session 6: Circum-Antarctic Stratigraphic and Palaeobathymetric Reconstructions
Conveners: Karsten Gohl, German Leitchenkov and Stuart Henrys

1600-1620 PS6.1 **Keynote: Pliocene-Pleistocene dynamics of the Antarctic Ice Sheet: evidence from the continental margin stratigraphy**
Phil Bart, Louisiana State University

1620-1640 PS6.2 **Keynote: Sediment drifts in Antarctica: Archives of climatic and oceanographic modifications**
Gabriele Uenzelmann-Neben, Alfred-Wegener-Institute for Polar and Marine Sciences

1640-1700 PS6.3 **Cenozoic seismic stratigraphy of the East Antarctic margin: significance for reconstruction of Cenozoic palaeoceanography and environmental changes**
German Leychenkov, Institute for Geology and Mineral Resources of the World Ocean

1700-1720 PS6.4 **ROSSMAP; Update of Regional Seismic Stratigraphic Correlations in the Victoria Land Basin**
Stuart Henrys, GNS Science

1720-1740 PS6.5 **The first Ross Sea – Amundsen Sea transect: A stratigraphic correlation of deep sea seismic reflection data along the Pacific margin of West Antarctica**
Ansa Lindeque, Alfred Wegener Institute

1740-1800 PS6.6 **Depositional patterns within small isolated and undernourished oceanic basins: the Protector and Pirie basins (Scotia Sea, Antarctica)**
Lara F. Pérez, Universidad de Granada-Consejo Superior de Investigaciones Cientificas

Parallel Session 7: Antarctic Climate Variability During the Holocene
Conveners: Raja S. Ganeshram and Hans Renssen

1030-1050 PS7.1 **Keynote: Holocene Antarctic Climate Variability as Recorded in Long Sediment Cores from the East Antarctic Margin, including early results from IODP Expedition 318**
Robert Dunbar, Stanford University

1050-1110 PS7.2 **Keynote: Holocene warm periods in Antarctica**
Dominic Hodgson, British Antarctic Survey

1110-1130 PS7.3 **Reconstructing Antarctic Holocene climate/environmental changes from ice and marine cores**
Barbara Stenni, University of Trieste

1130-1150 PS7.4 **Circum-Peninsula Paleoenvironmental Archives from Holocene Marine Sediment Sequences, Synopsis of a Large Multi-Proxy Data Base**
Eugene Domack, Hamilton College

1150-1210 PS7.5 **How does data assimilation in the Southern Hemisphere affect the representation of climate during the Holocene climate optimum?**
Pierre Mathiot, Université catholique de Louvain

1210-1230

1230-1330 Lunch

Parallel Session 7 Contd.
Convener: Xavier Crosta

1330-1350 PS7.7 **Deglacial and Holocene diatom silcia oxygen isotope record from the west Antarctic Peninsula**
Jennifer Pike, Cardiff University

1350-1410 PS7.8 **A Holocene diatom oxygen isotopes record from the Indian Sector of the Southern Ocean**
Masako Yamane, University of Tokyo

1410-1430 PS7.9 **A δ30Sidiatom reconstruction of Holocene productivity of the Southern Ocean, east Antarctica**
Virginia Panizzo, Université Libre de Bruxelles

1430-1450 PS7.10 **The influence of Holocene sea ice and climate variability on biogenic sedimentation, Adélie Land, East Antarctica**
Thomas Gregory, Cardiff University

1450-1510 PS7.11 **The Deglacial History and Paleoclimatic Significance of Herbert Sound, James Ross Island, Antarctic Peninsula**
Rebecca L. Minzoni, Rice University

1510-1530 PS7.12 **Late Holocene glacial retreat and rapid sedimentation in Beascochea Bay, Western Antarctic Peninsula**
Julia Wellner, University of Houston

1530-1600 Coffee

Parallel Session 7 Contd.
Convener: Barbara Stenni

1600-1620 PS7.13 **Oxygen, carbon, and silicon isotopes of diatom silica as indicators for Holocene environmental change in coastal East Antarctica**
Sonja Berg, University of Cologne

1620-1640 PS7.14 **Diatom community composition in years of contrasting sea-ice coverage and productivity**
Amber L. Annett, University of Edinburgh

1640-1700 PS7.15 **Influences on the stable carbon isotopic composition of suspended and sinking organic matter in the coastal Antarctic sea ice environment**
Sian F. Henley, University of Edinburgh

1700-1720 PS7.16 **An investigation on barite formation in Antarctic Sea Ice Environments: Implications to Ba-based productivity proxy**
Raja S Ganeshram, University of Edinburgh

1720-1740 PS7.17 **Insights into nitrate - solar activity relationship during the Holocene from TALDICE ice core**
Rita Traversi, University of Florence

1740-1800 PS7.18 **Penguin droppings vs. magmatic rocks: Evidence of Holocene climate variability as recorded by lake sediment geochemistry at Ardley Island (maritime Antarctic Peninsula)**
Patrick Monien, ICBM, Oldenburg University

Parallel Session 8: Antarctic Permafrost, Periglacial & Ice Free Areas
Conveners: Mike Hambrey and David Sugden

1030-1050 PS8.1 **Holocene climate variability from the lake sediment core in Schirmacher Oasis, East Antarctica**
Pawan Govil, National Centre for Antarctic and Ocean Research

1050-1110 PS8.2 **Evolution of landscape and climatic variations in the Schirmacher Oasis, East Antarctica during Holocene**
Naresh Chandra Mehrotra, Birbal Sahni Institute of Palaeobotany

1110-1130 PS8.3 **3D Modeling of an Antarctic Lake**
Maciej Obryk, University of Illinois at Chicago

1130-1150 PS8.4 **The formation of a 26m ice cover on Lake Vida, Antarctica**
HA Dugan, University of Illinois at Chicago

1150-1210 PS8.5 **Sea floor geomorphology and sedimentation along a rocky Antarctic Coast: Vestfold Hills, East Antarctica**
Philip E O'Brien, Macquarie University

1210-1230 PS8.6 **Determining rates of geomorphic processes over multiple timescales with cosmogenic nuclides Al-26, Be-10, and Ne-21 in Wright Valley, Antarctica**
Daniel J. Morgan, Vanderbilt University

1230-1330 Lunch

Parallel Session 8 Contd.
Conveners: Mauro Guglielmin and Gonçalo Vieira

1330-1350 PS8.7 **Keynote: Permafrost and active layer monitoring and their implications for the ecosystems and the landscape of the ice-free areas of Antarctica**
Mauro Guglielmin, Insubria University

1350-1410 PS8.8 **The Hydrology of the McMurdo Dry Valleys, Antarctica, an Energy-Dominated System**
Andrew G. Fountain, Portland State University

1410-1430 PS8.9 **Monthly ground temperature regimes and atmospheric circulation in Livingston Island (Maritime Antarctic)**
Gonçalo Vieira, University of Lisbon

1430-1450 PS8.10 **Thermal regime of active layer and permafrost in ornithogenic soils of Hope Bay, Antarctica Peninsula**
G. R. Schaefer, Federal University-Vicosa MG

1450-1510 PS8.11 **Isotopic and Temperarure Data from Northern Victoria Land Ice Wedges (East Antarctica)**
Rossana Raffi, Sapienza University of Roma

1510-1530 PS8.12 **Geophysical investigation as a tool for Permafrost and glacial evolution in the Maritime Antarctic - A case study at Moraine Valley (Signy Island)**
Roberto Gambillara, University of Insubria

1530-1600 Coffee

Parallel Session 8 Contd.

1600-1620 PS8.13 **Keynote: Windows on Antarctic soil landscape relationships: history, progress, and current soil map developments**
Megan Balks, University of Waikato

1620-1640 PS8.14 **Methanogenic and methanotrophic archaeon communities in Antarctic permafrost samples differed in biogenic methane content**
Irina Alekhina, Laboratoire de Glaciologie et Geophysique

1640-1700 PS8.15 **Microbial biomass C and CO2 emissions in permafrost-affected soils from maritime Antarctica**
Felipe N. B. Simas, Universidade Federal de Viçosa

1700-1720 PS8.16 **CO2 fluxes among different vegetation types in permafrost areas at Anchorage Island (Marguerite Bay, Antarctic Peninsula)**
Nicoletta Cannone, University of Insubria

1720-1740 PS8.17 **Soils and Permafrost of Russian Antarctic Stations Oases**
Sergey Goryachkin, Russian Academy of Sciences

1740-1800 PS8.18 **Influence of Snow Packs on Soils in the McMurdo Dry Valleys**
John Barrett, Virginia Tech

1800-1830 Break

Plenary Lecture

1830-1915 Pl6 **The deep time climate history of Antarctica**
Jane Francis, University of Leeds and Peter Barrett, Victoria University of Wellington

Wednesday 13 July

Plenary Lectures
Chair: Alex Tate

0830-0915 Pl7 **Data, collections and maps: Progress in Antarctic science**
Alan Cooper, US Geological Survey

0915-1000 Pl8 **OneGeology: Antarctica in a digital era**
Ian Jackson, British Geological Survey

1000-1030 Coffee

1030-1115 Pl9 **The role of the Antarctic Ice Sheet in global biogeochemical cycles**

Jemma Wadham, University of Bristol

1115-1200 Pl10 **Observing Antarctic subglacial hydrology from space**
Helen Fricker, Scripps Institution Of Oceanography

1200-1330 Lunch

Parallel Session 9: Antarctic subglacial lakes and continental-scale basal hydrology
Conveners: Neil Ross, Mike Bentley and Slawek Tulaczyk

1330-1350 PS9.1 **Keynote: Antarctic subglacial lake discharges and their influence on ice dynamics**
Frank Pattyn, Université Libre de Bruxelles

1350-1410 PS9.2 **Keynote: Subglacial Lake Ellsworth: A geophysical case study in preparation for lake access**
Andy Smith, British Antarctic Survey

1410-1430 PS9.3 **Spatial and temporal variability in subglacial conditions from geophysical observations**
J. Paul Winberry, Central Washington University

1430-1450 PS9.4 **Radar Results From the WISSARD Subglacial Lake Whillans Surface Geophysics Site Characterization Survey**
Robert Jacobel, St. Olaf College

1450-1510 PS9.5 **The Dynamic Filling/Draining Cycle of Subglacial Lake Whillans**
Knut Christianson, Penn State University

1510-1530 PS9.6 **The Basal Boundary of Thwaites Glacier Catchment: Characterizing an Anisotropic Hydrological Environment**
Dustin Schroeder, University of Texas at Austin

1530-1600 Coffee

Parallel Session 9 Contd.

1600-1620 PS9.7 **Evidence for a hydrological connection between the ice divide and ice sheet margin in the Aurora Subglacial Basin sector of East Antarctica**
Andrew Wright, University of Edinburgh

1620-1640 PS9.8 **Submarine groundwater discharge in Lützow-Holm Bay Antarctica and seepage of water from the coastal ice sheet**
Kazuo Shibuya, National Institute of Polar Research

1640-1700 PS9.9 **Ice sheet thermal structure preserves subglacial mountain topography**
Timothy Creyts, Columbia University

1700-1720 PS9.10 **Subglacial Hydrology and Thermal Structure in Dome A, East Antarctica**
Michael Wolovick, Columbia University

1720-1740 PS9.11 **Rift controls on the location of some large subglacial lakes in East Antarctica**
Carol Finn, U.S. Geological Survey

1740-1800 PS9.12 **Geologic Influence on the Recovery Lakes and Recovery Ice Stream Catchment, East Antarctica**
Adrienne E. Block, Columbia University

Parallel Session 10: Antarctic data, collections and maps
Convener: Alex Tate

1330-1350 PS10.1 **Mapping, Monitoring and Delivering the Antarctic: Three years of the Antarctic Geospatial Information Center**
Paul Morin, University of Minnesota

1350-1410 PS10.2 **The state of Antarctic data management; Japanese IPY experience**
Masaki Kanao, National Institute of Polar Research

1410-1430 PS10.3 **Status and Improvements of the Antarctic data system at Lamont**
Frank O. Nitsche, Columbia University

1430-1450 PS10.4 **The United States Polar Rock Repository: a Tool for Uncovering Antarctica's Geological Mysteries**
Anne Grunow, Ohio State University

1450-1510 PS10.5 **Reducing complexity and empowering collaboration through data management**
Ash Johnson, Geosoft

1510-1530 PS10.6 **A protocol for the protection and management of sites of intrinsic geological value in Antarctica**
Chris Carson, Geoscience Australia

1530-1600 Coffee

Parallel Session 10 Contd.

1600-1620 PS10.7 **AGAP ice-sounding radar data collection and release**
Hugh Corr, British Antarctic Survey

1620-1640 PS10.8 **Accessing geological maps of South Victoria Land**
Mark Rattenbury, GNS Science

1640-1700 PS10.9 **Antarctic field photos: unlocking the potential of archival images**
Alexander Tate, British Antarctic Survey

1700-1720 PS10.10 **Permafrost monitoring network at Russian Antarctic stations**
Andrey Abramov, Institute of Physicochemical and Biological Problems of Soil Science

1720-1740 PS10.11 **Characteristic features of ERS-1/-2 InSAR grounding line around Antarctica**
Kazuo Shibuya, National Institute of Polar Research

1740-1800

Parallel Session 11: Tectonic Evolution of Antarctic seaways and margins during the Mesozoic and Cenozoic and its influence on biota and climate

Conveners: Michael Curtis and Ian Dalziel

Part 1

Scotia arc /Weddell Sea:

1330-1350 PS11.1 **Keynote: The Weddell Sea Revisited**
Lawrence Lawver, University of Texas at Austin

1350-1410 PS11.2 **Eocene early opening of the Drake Passage: paleoceanographic implications**
Andres Maldonado, Consejo Superior De Investigaciones Cientificas

1410-1430 PS11.3 **Active Faulting, Transpression and Sedimentation in Endurance Basin, South Georgia: potential use of a Glaciated Continental Margin basin in reconstruction of oceanographic and climate variations in the Sub-Antarctic region**
Matthew J Owen, UCL

1430-1450 PS11.4 **The Nature and Age of the Floor of the Central Scotia Sea: Its Significance for Opening of the Drake Passage Deep Ocean Gateway**
Ian Dalziel, University of Texas at Austin

North Scotia Ridge/Tierra del Fuego:

1450-1510 PS11.5 **Late Oligocene erosion of Cordillera Darwin (southernmost South America) associated with rift margin uplift and opening of the west Scotia Sea**
Stuart N. Thomson, University o Arizona

1510-1530 PS11.6 **The ups and downs of South Georgia from apatite Fission Track thermochronology.**
Michael Curtis, British Antarctic Survey

1530-1600 Coffee

Parallel Session 11 Contd.

Part 2

Antarctic Peninsula/South Shetland Islands:

1600-1620 PS11.7 **Keynote: Multi-phase history of the mid-Cretaceous Palmer Land event in the southern Antarctic Peninsula: implications for terrane boundaries and kinematic evolution**
Alan P.M. Vaughan, British Antarctic Survey

1620-1640 PS11.8 **On the relation between the Antarctic Peninsula and Southern South America: Insights from a paleomagnetic study**
Fernando Poblete, Universidad de Chile

1640-1700 PS11.9 **Forced sea-level changes in a forearc basin related to subduction of a spreading ridge: the Fossil Bluff Group (Jurassic-Cretaceous), Alexander Island, Antarctic Peninsula**
David Macdonald, University of Aberdeen

1700-1720 PS11.10 **U-Pb zircon geochronology from the basement gneisses of eastern Graham Land, Antarctic Peninsula**
Teal Riley, British Antarctic Survey

Transantarctic Mountains /Dronning Maud Land:

1720-1740 PS11.11 **Age of formation of the Transantarctic Mountains in relation to reorganisation of adjacent oceanic plate boundaries**
Rupert Sutherland, GNS Science

1740-1800 PS11.12 **Pull-apart rifting and exhumation history from Dronning Maud Land to northern Mozambique: new thermochronological data**

Joachim Jacobs, University of Bergen

Thursday 14 July

Plenary Lectures

0830-0915 Pl11 **The Polenet Project: Data Acquisition Status, Initial Results, Future Modelling**
Terry Wilson, Ohio State University

0915-1000 Pl12 **Antarctic Research Imperatives in a Changing World**
Mahlon 'Chuck' Kennicutt II, President of the Scientific Committee on Antarctic Research

1000-1030 Coffee

Parallel Session 12: Glacial Geology: processes and products, with particular emphasis on cold-based glaciers
Conveners: Cliff Atkins and Warren Dickinson

1030-1050 PS12.1 **Keynote: Glacial geology and landform evolution beneath and at the margins of cold-based glaciers**
Sean Fitzsimons, University of Otago

1050-1110 PS12.2 **Structure and debris transfer processes in the McMurdo Ice Shelf (Ross Embayment)**
Michael J. Hambrey, Aberystwyth University

1110-1130 PS12.3 **Spatial and temporal variability of glacial erosion rates in the Antarctic Peninsula**
Rodrigo A. Fernandez, Rice University

1130-1150 PS12.4 **Geological evidence for glacier-permafrost interactions beneath cold-based ice within high-latitude and mid-latitude environments**
Richard Waller, Keele University

1150-1210 PS12.5 **Influence of cold-based glaciers on landscape development**
Cliff Atkins, Victoria University of Wellington

1210-1230 PS12.6 **Relict ice deposits from Cold Based Glaciers**
Warren Dickinson, Victoria University Wellington

1230-1330 Lunch

Parallel Session 13: New Insights into the Cenozoic History of the Wilkes Land Antarctic Margin – Consequences for Biotic, Oceanographic and Climatic Evolution
Conveners: Carlota Escutia, Henk Brinkhuis, Robert Dunbar and Adam Klaus

1330-1350 PS13.1 **Glacial isostatic adjustments and sea level - Implications for Wilkes Land interpretations**
Bert Vermeersen, TU Delft

1350-1410 PS13.2 **Integrated Eocene stratigraphy of the Wilkes Land Margin, Antarctica: Preliminary palynological and geochemical results from IODP Expedition 318**
Peter Bijl, Utrecht University

1410-1430 PS13.3 **The onset of Cenozoic Antarctic glaciation: understanding relative sea-level changes – model and field data comparison**
Paolo Stocchi, TU Delft

1430-1450 PS13.4 **Oligocene environmental changes in response to a developing East Antarctic ice sheet**
Alexander J.P. Houben, Utrecht University

1450-1510 PS13.5 **Oligocene–Miocene Antarctic paleoclimatic history from sedimentary facies distribution at IODP Site U1356, Wilkes Land continental rise**
Sandra Passchier, Montclair State University

1510-1530 PS13.6 **Isotopic Fingerprint of Early Oligocene Ice-Rafted Debris from the Antarctic Margin: A Spatial Record of Initial Ice-Sheet Expansion**
Tina van de Flierdt, Imperial College London

1530-1600 Coffee

Parallel Session 13 Contd.

1600-1620 PS13.7 **Sedimentary Insights to the Mid-Miocene Climate Transition from IODP Site U1356A**
Elizabeth L. Pierce, Columbia University

1620-1640 PS13.8 **Correlation of Late Miocene to Pliocene climatic events in Antarctic drill sites using physical properties data**
Trevor Williams, Columbia University

1640-1700 PS13.9 **A dinoflagellate cysts perspective on the Neogene climate and environment of the Wilkes Land margin, Antarctica (IODP 318): preliminary results**
Francesca Sangiorgi, University of Utrecht

1700-1720 PS13.10 **Early to mid-Pleistocene warm events at the Wilkes Land margin, East Antarctica: Initial results for IODP Expedition 318**
Robert McKay, Victoria University of Wellington

1720-1740 PS13.11 **Inferences on provenance for Pleistocene period sediments from the sediment record of site U1359 of the Wilkes Land IODP expedition and clay mineral studies**
NC Pant, University of Delhi

1740-1800 PS13.12 **Holocene Temperature Reconstruction on Adelie Drift, Wilkes Land (Iodp 318), Antarctica**
Veronica Willmott, Alfred Wegener Institute

Parallel Session 14: New frontiers and interdisciplinary advances in Antarctic Science
Convener: Colm O'Cofaigh

1030-1050 PS14.1 **Bathymetric influence on Thwaites Glacier dynamics, from Operation IceBridge aerogravity**
Kirsty Tinto, Lamont-Doherty Earth Observatory

1050-1110 PS14.2 **Glacial marine litho- and biofacies in Antarctica: A new perspective from integration of ROV, bottom imagery, multibeam bathymetry, and sediment cores**
Eugene Domack, Hamilton College, Geosciences

1110-1130 PS14.3 **Interdisciplinary Outcomes of the ANDRILL Coulman High Site Surveys**
Frank Rack, University of Nebraska-Lincoln

1130-1150 PS14.4 **Evaluation of detectability for teleseismic and local events by the FDSN/POLENET station in Antarctica**
Masaki Kanao, National Institute of Polar Research

1150-1210 PS14.5 **High Resolution 8-Band WorldView-2 Satellite Data for Polar Geospatial Classification and Thematic Elevation Mapping of the Larsemann Hills, East Antarctica**
Shridhar D. Jawak, National Centre For Antarctic and Ocean Research

1210-1230 PS14.6 **Observations of high latitude magnetic substorm activity at Bharati, Larsemann Hills, Antarctica**
Ajay Dhar, Indian Institute of Geomagnetism

1230-1330 Lunch

Parallel Session 15: Observation and modelling of POLENET data
Convener: Matt King

1330-1350 PS15.1 **Keynote: The Antarctic-POLENET (ANET) GPS Network in West Antarctica**
Terry J. Wilson, Ohio State University

1350-1410 PS15.2 **A newly reanalysed dataset of GPS determined Antarctic vertical rates**
Matt King, Newcastle University

1410-1430 PS15.3 **The LARISSA cGPS network, northern Antarctic Peninsula, installation, access, and initial results**
Eugene Domack, Hamilton College

1430-1450 PS15.4 **The role of the glacial isostatic adjustment (GIA) in the determination of ice mass changes in Antarctica from GRACE and ICESat**
Mirko Scheinert, Dresden University of Technology

1450-1510 PS15.5 **Using GPS data to constrain GIA models in Antarctica**
Pippa Whitehouse, Durham University

1510-1530 PS15.6 **On Geodetic Data Combinations for Constraining Antarctic Ice Sheet History and Mantle Viscosity**
Erik R. Ivins, JPL Caltech

1530-1600 Coffee

Parallel Session 15 Contd.

1600-1620 PS15.7 **The Victoria Land Network for DEFormation control (VLNDEF): 12 years of survey**
Alessandro Capra, University of Modena and Reggio Emilia

1620-1640

1640-1700 PS15.9 **POLENET and Future Directions for Seismology in Antarctica**
Richard C. Aster, New Mexico Institute of Mining and Technology

1700-1720 PS15.10 **Comparison of global synthetic seismograms calculated by the spherical 2.5-D finite-difference method with observed waveforms from intra-Antarctic region**
Genti Toyokuni, NIPR

1720-1740 PS15.11 **Seasonal and Directional Variation of Microseismic Noise: Tracking Sea Ice Cover with Seismology**
Douglas Wiens, Washington University in St Louis

1740-1800 PS15.12 **Atmosphere - Ocean – Solid Earth Interaction from Microseisms and Microbaroms recorded at Syowa Station, East Antarctica**
Masaki Kanao, National Institute of Polar Research

Parallel Session 16: Geological controls on modern and past Antarctic bottom water and marine environment
Conveners: Laura De Santis and Philip O'Brien

1030-1050 PS16.1 **Keynote: Glacial bottom-water production and contourite ridges in the Weddell Sea – a review**
Michael E. Weber, University of Cologne

1050-1110 PS16.2 **Amundsen Sea sediment drifts: Archives of modifications in oceanographic and climatic conditions**
Gabriele Uenzelmann-Neben, Alfred Wegener Institute for Polar and Marine Research

1110-1130 PS16.3 **Keynote: Evidences of past bottom water variability in the Ross Sea slope during the Late Pleistocene-Holocene: an integrated approach**
Alessandra Asioli, Institute of Geosciences, Padova

1130-1150 PS16.4 **Geomorphological expression of cold, dense water overflow across the Antarctic continental shelf edge**
Jenny Gales, British Antarctic Survey/University of Manchester

1150-1210 PS16.5 **Factors controlling sediment delivery and composition on the rise and slope of the Wilkes Land margin (East Antarctica)**
Massimo Presti, Istituto Nazionale di Oceanografia e Geofisica Sperimentale (OGS), Trieste

1210-1230 PS16.6 **New evidence to support the distribution of dense hydrocoral-sponge communities along George V slope, East Antarctica**
Jodie Smith, Geoscience Australia

1230-1330 Lunch

Parallel Session 17: Unravelling the geologic, climatic and topographic evolution of Antarctica
Conveners: Stewart Jamieson and Kathy Licht
Session Chairs: Stewart Jamieson and Graeme Eagles

1330-1350 PS17.1 **Keynote: Cretaceous Geodynamic and Landscape Evolution of Antarctica**
Paul Markwick, GETECH Group plc

1350-1410 PS17.2 **Keynote: Enhancing Visualizations of Antarctic Paleogeography**
Paul Morin, University of Minnesota

1410-1430 PS17.3 **ANTscape's Late Cretaceous Paleotopography**
Graeme Eagles, Royal Holloway University of London

1430-1450 PS17.4 **Characterising long term fluvial and glacial landscape evolution in the Gamburtsev Subglacial Mountains, East Antarctica**
Kathryn Rose, British Antarctic Survey

1450-1510 PS17.5 **Jurassic-Oligocene Thermochronologic evolution of the Byrd Glacier Outlet, Transantarctic Mountains**
Audrey Huerta, Central Washington University

1510-1530 PS17.6 **Emergence of the Shackleton Range from beneath the Antarctic Ice Sheet: insights from cosmogenic isotope analysis**
David Sugden, University of Edinburgh

1530-1600 Coffee

Parallel Session 17 Contd.
Session Chairs: Kathy Licht, Trevor Williams and Elizabeth Pierce

1600-1620 PS17.7 **Keynote: Detrital zircons as a proxy of ice-covered Antarctic geology: Examples from ancient sediments, recent glacial deposits, and offshore realms**
John W. Goodge, University of Minnesota

1620-1640 PS17.8 **Geological template for dynamic thinning of ice along the Bellingshausen Sea coast, West Antarctica**
Robert Bingham, University of Aberdeen

1640-1700 PS17.9 **The Evolution of the Pliocene East Antarctic Ice Sheet As Revealed By Detrital Marine Sediment Provenance Studies**
Carys Cook, Imperial College London

1700-1720 PS17.10 **Detrital zircon populations in till from the Weddell and Ross Embayments**
Kathy Licht, Purdue University Indianapolis

1720-1740 PS17.11 **Clay mineral assemblages in Antarctic continental margin sediments: Successful applications and pitfalls in reconstructing palaeoenvironments from detrital provenance indicators**
Claus-Dieter Hillenbrand, British Antarctic Survey

1740-1800 PS17.12 **Iron Oxide Geochemistry and Texture as a Tracer of Antarctic Sediment Provenance**
Stefanie Brachfeld, Montclair State University

1800-1830 Break

Plenary Lecture
1830-1915 Pl13 **Cenozoic evolution of the Antarctic Ice Sheets and Southern Ocean**
Tim Naish, Victoria University of Wellington

Friday 15 July

Plenary Lectures
0830-0915 Pl14 **The Cretaceous-Paleogene vertebrate record of Antarctica: What's been found, what it means, and where to look next.**
Ross MacPhee, American Museum of Natural History
0915-1000 Pl15 **From Greenhouse to Icehouse at the East Antarctic Wilkes Land sector - IODP Expedition 318**
Carlota Escutia, Universidad de Granada

1000-1030 Coffee

Parallel Session 18: Uncovering & Unveiling Antarctica
Convener: Fausto Ferraccioli
1030-1050 PS18.1 **Keynote: Beneath the veil: Integration of geophysical imaging and proxy geologic sampling of ice-covered Antarctica**
John W. Goodge, University of Minnesota
1050-1110 PS18.2 **Keynote: Geology of East Antarctica from a geophysical perspective: some of the latest news**
Carol Finn, U.S. Geological Survey
1110-1130 PS18.3 **Upper Mantle Seismic Anisotropy of Antarctica from Shear Wave Splitting Analysis**
Douglas Wiens, Washington University in St Louis
1130-1150 PS18.4 **Crustal Structure of the Gamburtsev Mountains, East Antarctica, from S-wave Receiver Functions and Rayleigh Wave Phase Velocities**
Samantha Hansen, University of Alabama
1150-1210 PS18.5 **Crustal structure of the Lützow-Holm Bay to Dome-F, and the GSM in East Antarctica derived from seismic and gravity surveys**
Masaki Kanao, National Institute of Polar Research
1210-1230 PS18.6 **Upper Mantle Structure Beneath the Gamburtsev Subglacial Mountains & East Antarctica from Body-Wave Tomography**
Andrew J. Lloyd, Department of Geosciences, Penn State

1230-1330 Lunch

Parallel Session 18 Contd.
Convener: Carol Finn
1330-1350 PS18.7 **Keynote: Origin of the Gamburtsev Subglacial Mountains linked to Cretaceous reactivation of the East Antarctic Rift System**
Fausto Ferraccioli, British Antarctic Survey
1350-1410 PS18.8 **Shear velocity structure of the Gamburtsev Subglacial Mountains and surrounding regions, East Antarctica**
David S Heeszel, Washington University in St. Louis
1410-1430 PS18.9 **3D Lithosphere Model of Antarctica from Surface Wave Observations**
Meijian An, Institute of Geomechanics, CAGS
1430-1450 PS18.10 **Distinguishing East and West Antarctic sediment sources using the Pb isotopic composition of detrital K feldspar**
Michael Flowerdew, British Antarctic Survey
1450-1510 PS18.11 **The Sub-glacial Geology of the Prydz Belt, East Antarctica**
Yue Zhao, Chineses Academy of Geological Sciences
1510-1530 PS18.12 **Bedrock Morphology and Coastal Connections of the Vanderford Subglacial Trough, East Antarctica**
Jamin S. Greenbaum, University of Texas at Austin

1530-1600 Coffee

Parallel Session 18 Contd.

Convener: Alan Vaughan

1600-1620 PS18.13 **Deciphering tectonic phases of the Amundsen Sea Embayment shelf, West Antarctica, from a magnetic anomaly grid**
Karsten Gohl, Alfred Wegener Institute for Polar and Marine Research

1620-1640 PS18.14 **The Aeromagnetic Method has Proven the Most Useful Geophysical Tool for Studying Subglacial Volcanic Rocks Associated with the West Antarctic Rift (WR) beneath the West Antarctic Ice Sheet (WAIS)**
John C. Behrendt, INSTAAR, University of Colorado at Boulder

1640-1700 PS18.15 **ICEGRAV: New airborne geophysics in the Antarctic Peninsula and East Antarctica**
Rene Forsberg, Technical University of Denmark

1700-1720 PS18.16 **New aerogeophysical survey unveils rifted crust beneath the Institute and Möller ice streams**
Tom A. Jordan, British Antarctic Survey

1720-1740 PS18.17 **Crustal structure of the Antarctic Peninsula continetal margin around Anvers Island from potential field data**
Tamara Yegorova, National Academy of Sciences of Ukraine

1740-1800 PS18.18 **The Offshore New Harbor (ONH) Project: Imaging and dating the seismic stratigraphy of the Greenhouse to Icehouse Worlds from Offshore New Harbor, western Ross Sea, Antarctica**
Stephen F. Pekar, Queens College, City University of New York

Parallel Session 19: Ice Sheet Quaternary History

Conveners: James Smith, Jo Johnson, Eugene Domack, Chris Fogwill, Claus-Dieter Hillenbrand, Dominic Hodgson and Andrew Mackintosh

Part 1. Quaternary history of the Antarctic Ice Sheet: a terrestrial perspective

1030-1050 PS19.1 **Keynote: History of a grounded ice sheet in the Ross Sea Embayment at and since the last glacial maximum**
Brenda Hall, University of Maine

1050-1110 PS19.2 **Keynote: Retreat of the East Antarctic Ice Sheet during the last glacial termination**
Andrew Mackintosh, Victoria University of Wellington

1110-1130 PS19.3 **^{10}Be and ^{26}Al exposure age chronology of the Darwin-Hatherton Glacial System. A proxy for East and West Antarctic Ice Sheet expansion**
Kurt Joy, Gateway Antarctica, University of Canterbury, Private Bag 4800, Christchurch, New Zealand

1130-1150 PS19.4 **Pleistocene history of the Slessor Glacier, Weddell Sea embayment, Antarctica**
Andrew Hein, University of Edinburgh

1150-1210 PS19.5 **Relative Sea-Level Data from the South Shetland Islands, Antarctica, show evidence for Glacial-Isostatic Adjustment to the Little Ice Age: Possible Implications for gravity-induced-measurements of inferred rates of ice-mass loss**
Alexander R. Simms, University of California, Santa Barbara

1210-1230 PS19.6 **A new relative sea level curve for the South Shetland Islands**
Emma Watcham, Durham University

1230-1330 Lunch

Parallel Session 19 Contd.

1330-1350 PS19.7 **Ice-free areas have existed through multiple glacial cycles on the Antarctic Peninsula**
Rebecca Rixon, University of Exeter

1350-1410 PS19.8 **A new deglacial model for Antarctica**
Pippa Whitehouse, Durham University

1410-1430 PS19.9 **Past evolution of the Antarctic Ice Sheet: a Bayesian calibrated 3D Glacial System modelling study**
Robert Briggs, Memorial University of Newfoundland

1430-1450 PS19.10 **Deglacial history of Hudson Mountains, Amundsen Sea embayment**
Michael J Bentley, Durham University

Part 2. Quaternary history of the Antarctic Ice Sheet: a marine perspective

1450-1510 PS19.11 **Post-LGM glacial retreat in Pine Island Bay, West Antarctica**
Alexandra E. Kirshner, Rice University

1510-1530 PS19.12 **Palaeo ice-flow and sub-glacial hydrology in Pine Island Bay, West Antarctica**

Frank O. Nitsche, Columbia University

1530-1600 Coffee

Parallel Session 19 Contd.

1600-1620 PS19.13 **Keynote: Quaternary collapses of the West Antarctic Ice Sheet: evidence and uncertainties**
Reed Scherer, Northern Illinois University

1620-1640 PS19.14 **Keynote: Marine evidence for the maximum extent, timing and nature of retreat of the LGM Antarctic Ice Sheet: a review**
Stephen J. Livingstone, Durham University

1640-1700 PS19.15 **Glacial geomorphology and chronology of the Marguerite Trough Ice Stream, Antarctic Peninsula: implications for basal processes, bedform genesis and retreat history**
Colm O'Cofaigh, Durham University

1700-1720 **PS19.16 The controls on the post-LGM retreat of Marguerite Bay palaeo ice-stream, Antarctic Peninsula: high-resolution mapping constrains numerical modelling**
Stewart Jamieson, Durham University

1720-1740 PS19.17 **Early-mid Holocene West Antarctic Ice Shelf retreat and thinning of the Ross Ice Shelf**
Gary Wilson, University of Otago

1740-1800 PS19.18 **Late Quaternary grounded ice extent in the Filchner Trough, Weddell Sea: new marine evidence**
Robert D. Larter, British Antarctic Survey

Parallel Session 20: Origin & Evolution of Modern Biota

Conveners: Pete Convey, Alistair Crame, Claus-Dieter Hillenbrand and Dominic Hodgson

1030-1050 PS20.1 **Modeling Antarctica's long-term climatic and glacial evolution**
Rob DeConto, University of Massachusetts

1050-1110 PS20.2 **The evolution of the Antarctic marine fauna: recent insights and outstanding questions**
Andrew Clarke, British Antarctic Survey

1110-1130 PS20.3 **Cenozoic Antarctic molluscs from the Cape Melville Formation, King George Island (South Shetland Islands) Antarctica**
Rowan Whittle, British Antarctic Survey

1130-1150 PS20.4 **The Miocene terrestrial and lacustrine biota of Antarctica**
Allan C. Ashworth, North Dakota State University

1150-1210 PS20.5 **Mid- and late Miocene freezing of Antarctic seas and evolution of the modern sea-ice diatom biota**
David Harwood, University of Nebraska-Lincoln

1210-1230 PS20.6 **Geological constraints on Antarctic glacial refugia during the last glacial period: a case study from the shelf, northwest of Alexander Island**
Alastair G.C. Graham, British Antarctic Survey

1230-1330 Lunch

Parallel Session 21: Austral Portals

Conveners: Ross MacPhee and David Barbeau

1330-1350 PS21.1 **Keynote: When did Madagascar/India finally separate from East Antarctica? Integrating tectonics and biogeography**
Joel Cracraft, American Museum of Natural History

1350-1410 PS21.2 **Antarctica as a dispersal route during the Late Mesozoic and Early Cenozoic**
Lawrence Lawver, University of Texas at Austin

1410-1430 PS21.3 **Vertebrate biogeography of Gondwana: implications of the absence of landbridges between Antarctica and Indo-Madagascar during the Late Cretaceous**
David W. Krause, Stony Brook University

1430-1450 PS21.4 **Paleontologic, Phylogenetic, Paleobiogeographic and Geologic Data to Support an Early Campanian Connection of Indo-Madagascar to Antarctica**
Judd Case, Eastern Washington University

1450-1510 PS21.5 **Sedimentary Connections and Ocean Thoroughfare In the Antarctic: Constraints on the closing of the Scotia Portal and the opening of Drake Passage**
David L. Barbeau, Jr., University of South Carolina

1510-1530 PS21.6 **New fossil vertebrate discoveries from the Late Cretaceous of James Ross and Vega Islands, West Antarctica**

Ross MacPhee, American Museum of Natural History

1530-1600 Coffee

Parallel Session 22: Evolution of Life, Environments and climates in Antarctica from deep time to the present
Convener: Jane Francis

1600-1620 PS22.1 **Dating Antarctica's Neoproterozoic glacial interval**
Edmund Stump, Arizona State University

1620-1640 PS22.2 **Icehouse to greenhouse transitions in earth history: physical and biological consequences in the aftermath of the "Snowball Earth" and collapse of the Larsen Ice Shelf**
Eugene Domack, Hamilton College

1640-1700 PS22.3 **Sequence Stratigraphy in the lower Taylor Group (Beacon Supergroup), and the development of the southern Victoria Land Basin**
Margaret Bradshaw, University of Canterbury

1700-1720 PS22.4 **The first marine palynological zonation scheme for Antarctica – biogeographic implications for the south polar region during the latest Cretaceous to earliest Paleogene**
Vanessa Bowman, University of Leeds

1720-1740 PS22.5 **An Eocene sea surface temperature record for the Antarctic Peninsula derived from bivalve clumped isotope measurements**
Linda Ivany, Syracuse University

1740-1800 PS22.6 **How likely was a green Antarctic Peninsula during warm Pliocene interglacials? - A critical reassessment based on new palynofloras from James Ross Island**
Ulrich Salzmann, Northumbria University

1800-1830 **Break**

Plenary Lecture

1830-1915 Pl16 **Unveiling the continent: Progress in understanding Antarctica's great subglacial basins**
Duncan Young, University of Texas at Austin