Sunday September 10th

18:30 - 20:00 **Ice breaker**
Caffè degli Specchi, Piazza Unità d'Italia - Trieste

Monday September 11th

SATURNIA ROOM

8:00 Onsite registration opens
9:00 - 9:30 Welcome and greetings from: OGS President Maria Cristina Pedicchio, PNRA-CSNA president Antonio Meloni, PAIS co-chief officers Laura De Santis and Tim Naish.

THEME 1A **Advances in Antarctic ice-sheet reconstructions from geological and ice core archives: LGM to Recent**

Chair: Tim Naish

SATURNIA ROOM

9:30 - 10:00 Invited Louise Sime
Advances in Antarctic ice-sheet reconstructions from ice core archives

10:00 - 10:30 Invited Mike Bentley
Advances in Antarctic ice-sheet reconstructions from geological archives: Recent reconstructions (Last Interglacial to present)

10:30 - 10:45 Nancy Bertler et al.
Wind Driven Ocean/Ice Interactions during the Ross Sea Region Deglaciation

10:45 - 11:00 Barbara Stenni et al.
Regional and continental scale Antarctic climate variability over the last 2,000 years

11:00 - 11:15 Reed Scherer et al.
Extensive Holocene grounding line retreat and uplift-driven readvance across Ross and Ronne sectors of the West Antarctica

11:15 - 11:45 **Coffee break**

11:45 - 12:00 Rob McKay et al.
Reassessing the post-Last Glacial Maximum retreat history from the Southwest Ross Sea
12:00 - 12:15 John Anderson et al.
Uncovered anatomy of a subglacial hydrological system coupled to past ice sheet grounding lines

12:15 - 12:30 Philip Bart
A modern-day unpinning of the Ross Ice Shelf from Ross Bank

12:30 - 12:45 Claus Hillenbrand et al.
Reconstruction of Late Quaternary palaeoenvironmental changes on the West Antarctic continental margin using a multi-proxy approach

12:45 - 13:00 Laura De Santis et al.
Exploring past and modern bottom current pathways along the continental margin: the Ross Sea survey 2017

13:00 - 14:15 Lunch

14:15 - 14:30 Amy Leventer et al.
Searching for paleoclimate archives on the East Antarctic margin: Sabrina Seafloor Survey 2017

14:30 - 14:45 Kate Newton et al.
Glacial discharge, productivity and oceanic variability from the Antarctic coastal zone: results from a 171 m Holocene sediment core from IODP Expedition 318

14:45 - 15:00 Fausto Ferraccioli et al.
New aerogeophysical views of bedrock topography, subglacial geology and englacial layers in the South Pole sector of the East Antarctic Ice Sheet

15:00 - 15:15 Bethan Davies et al.
George VI Ice Shelf: Holocene stability and interactions with fluctuating valley glaciers on Alexander Island, Antarctic Peninsula

15:15 - 15:30 James Smith et al.
Using sub-ice- shelf sediments to reconstruct glacier history - a case study from Pine Island Glacier

15:30 - 15:45 Dominic Hodgson et al.
Deglaciation and future stability of the Coast Land ice margin, Antarctica

15:45 - 16:00 Coffee break

16:00 - 17:00 Poster session
17:00 - 18:00  Plenary discussion on theme 1A  
Chair: Nancy Bertler; Panel: John Anderson, Rob McKay, Louise Sime, Mike Bentley

18:00 - 20:00

**VULCANIA 1 ROOM**  
Seismic Data Library System (SDLS) business meeting  
Chairs: Frank Nitsche, Chiara Sauli, open

**OCEANIA AB ROOM**  
IODP Exp. 374 pre-cruise meeting  
Chairs: Rob McKay, Laura De Santis, Denise Kulhanek, closed

**SATURNIA ROOM**  
APECS - Social Media and Science Communication  
Chair: Andrea Spolaor, Mathieu Casado, François Burgay, Federico Dallo, Jilda Caccavo, Giulia Massolino, open

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**Tuesday September 12th**

**THEME 1B Advances in Antarctic ice-sheet reconstructions from geological and ice core archives - Deep time reconstructions**

**SATURNIA ROOM**

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Onsite registration opens</td>
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<td></td>
<td>Chair: Sandra Passchier</td>
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<tr>
<td>8:30 - 9:00</td>
<td>Invited Richard Levy et al.</td>
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<td>Antarctic ice sheet sensitivity to orbital forcing, crustal subsidence, and carbon dioxide fluctuations</td>
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<td>9:00 - 9:15</td>
<td>Robert Larter et al.</td>
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<td>Development of a large sediment drift near the mouth of Marguerite Trough, Antarctic Peninsula as a record of past ice stream dynamics</td>
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<tr>
<td>9:15 - 9:30</td>
<td>Karsten Gohl et al.</td>
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<td>MeBo seabed drilling in the Amundsen Sea Embayment: Operational experience and preliminary results</td>
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Past Antarctic Ice Sheet Dynamics
Program

9:30 - 9:45  Gabriele Uenzelmann-Neben
Variations in Ice Sheet Dynamics along the Amundsen Sea and Bellingshausen Sea West Antarctic Ice Sheet margin

9:45 - 10:00  Joseph Prebble et al.
Antarctic ice sheet excluded from the western Ross Embayment during the earliest Oligocene

10:00 - 10:15  Guy Paxman et al.
Long term landscape and ice sheet evolution of the Wilkes Subglacial Basin, East Antarctica

10:15 - 10:30  Tina van de Flierdt
Geological evidence for Late Pleistocene variability of the East Antarctic Ice Sheet?

10:30 - 11:00  Coffee break

11:00 - 11:15  Francesca Sangiorgi et al.
The role of the ocean for Antarctic cryosphere dynamics during mid-Miocene: a view from offshore Wilkes Land

11:15 - 11:30  Yusuke Suganuma et al.
Reconstruction of the East Antarctic ice sheet variability during the last 3 Ma in the central & eastern Dronning Maud Land, East Antarctica

11:30 - 11:45  Trevor Williams et al.
Using Sediment Provenance to Study Ice Streams in the Weddell Sea Embayment of Antarctica

11:45 - 12:30  Poster session

12:30 - 13:30  Lunch

THEME 2
Advances in understanding the drivers, processes, and rates of past and future Antarctic ice-sheet change from models and data

SATURNIA ROOM
Chair: Phil Bart

13:30 - 14:00  Invited Florence Colleoni
Past unknowns for an unknown future

14:00 - 14:30  Invited Paolo Stocchi et al.
Relative sea-level changes and sediment deposition: a first step toward a fully coupled system
14:30 - 14:45 Catherine Bradshaw et al.
Decoupling of temperatures and ice volume in the Middle Miocene: a missing piece of the puzzle?

14:45 - 15:00 Edward Gasson et al.
The Antarctic ice sheet during the mid-Miocene and mid-Pliocene

15:00 - 15:15 Gerrit Lohmann et al.
Antarctic ice sheet during the Last Interglacial: Thresholds and Feedbacks

15:15 - 15:30 Terry Wilson et al.
Antarctic ice mass change since the LGM: constraints from geodetic measurements of bedrock crustal motions

15:30 - 15:45 Christine Siddoway et al.
New insights into the Ross Ice Shelf region ice, ocean, bathymetry, and lithosphere through IcePod airborne geophysical data

15:45 - 16:00 Daniel Lowry et al.
Transient ice sheet simulation of the Ross Ice Shelf deglaciation

16:00 - 16:30 Coffee break

16:30 - 16:45 Enea Montoli et al.
Impact of Ocean basal melting formulations: Pine Island and Totten glaciers case study

16:45 - 17:00 Favier Vincent et al.
How to give accurate SMB forcing to ice dynamic model for the 21st century projections?

17:00 - 18:00 Plenary discussion on Theme 1B and Theme 2
Chair: Tina Van de Flierdt; Panel: Richard Levy, Florence Colleoni, Paolo Stocchi, Kasten Gohl

18:30 DEPARTURE BY BUS
IN FRONT OF THE CONFERENCE VENUE FOR THE SOCIAL DINNER IN AQUILEIA
Wednesday September 13\textsuperscript{rd}

**Workshop Day**

\begin{itemize}
\item **8:00 - 10:00** SATURNIA ROOM
  Mid to high latitude climate impacts on EAIS stability since the LGM. Defining knowledge gaps and research priorities.
  Chairs: Vincent Favier, Tessa Vance, Tas van Ommen, open

\item **8:00 - 10:00** OCEANIA AB ROOM
  Subcommittee on paleobathymetry and paleotopography.
  Chairs: Karsten Gohl, Stewart Jamieson, open

\item **10:00 - 10:30** Coffee break

\item **10:30 - 12:30** SATURNIA ROOM
  Can we constrain and reconstruct the extent of the past and future ice shelves? Models and observations, Antarctica future tipping point.
  Chairs: Florence Colleoni, Laura De Santis, Fabio Florindo, Paolo Stocchi, open

\item **10:30 - 12:00** OCEANIA AB ROOM
  Terrestrial-Marine Regional Glacial History, Terra Nova Bay area.
  Chair: Jamey Stutz, open

\item **13:30 - 15:00** SATURNIA
  PRAMSO - Palaeoclimate Records from the Antarctic Margin and Southern Ocean.
  Chair: Tim Naish, open

\item **15:30 - 16:00** Coffee break

\item **16:00 - 18:00** SATURNIA ROOM
  IODP mission-specific platform Expedition 373, Antarctic Cenozoic Climate.
  Chairs: Trevor Williams, Carlota Escutia, open

\item **16:00 - 18:00** OCEANIA AB ROOM
  Southern Ocean Climate Evolution (IODP 918-pre).
  Chairs: Minoru Ikehara, Xavier Crosta

\item **18:00 - 20:00** OCEANIA AB ROOM
  Internal post-cruise meeting of the PS104/MeBo Science Team.
  Chair: Karsten Gohl, closed

\item **18:00 - 20:00** VULCANIA 1 ROOM
  Internal post-cruise meeting of the OGS Explora 2017 cruise science team
  Chairs: Laura De Santis, Michele Rebesco, closed

\item **18:00 - 20:00** SATURNIA ROOM
  Film “Ice and the Sky” (Language: English)
\end{itemize}
## Theme 3: Bipolar connections and far-field responses to Antarctic ice sheet change

**Saturnia Room**

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| 8:30 - 9:00 | Invited Andrea Dutton  
Inferring Antarctic ice sheet contributions to past interglacial sea level highstands from far-field sea level reconstructions. |
| 9:00 - 9:30 | Invited Julie Brigham-Grette et al.  
Plio-Pleistocene Teleconnections between the Two Poles: emerging Questions to address Earth’s future. |
| 9:30 - 10:00 | Invited Rob DeConto et al.  
Using past Ice sheet dynamics to improve models and predictions of future sea level |
| 10:00 - 10:15 | Renata Giulia Lucchi et al.  
Laminated sediments as proxy of extreme meltwater events: the NW Barents Sea marine record of MWP-1°. |
| 10:15 - 10:30 | Michele Petrini et al.  
Grounding Line migration and ocean basal melting: competing effects in the simulated retreat of the Storfjorden (Svalbard) ice stream during the last deglaciation. |
| 11:00 - 11:15 | Georgia Grant et al.  
Amplitude and frequency of Pliocene (~3.2-2.6 Ma) glacio-eustatic, sea-level fluctuations from a new shallow-marine sediment record, Whanganui Basin, New Zealand. |
| 11:15 - 11:30 | Gavin Dunbar et al.  
The relative influence of precession and obliquity on Late Pliocene (3.3 - 2.4 Ma) polar ice sheet dynamics and global sea-level change. |
| 11:30 - 11:45 | Bas de Boer et al.  
Orbital driven Late Pliocene climate changes and their relation to ice volume and relative sea-level change. |
| 11:45 - 12:00 | Michael Weber et al.  
Reconstructing and understanding deglacial Antarctic Ice Sheet dynamics - novel insights and implications for future sea-level rise. |
12:00 - 12:15 *Xavier Crosta et al.*
Late Holocene sea ice dynamics and potential forcing mechanisms in the Indian sector of the Southern Ocean.

12:15 - 12:30 *Frank Lamy et al.*
Atmosphere-ocean changes in the Pacific Southern Ocean over the past Million years and implications for global climate.

12:30 - 12:45 *Alastair Graham et al.*
Major advance of South Georgia glaciers during the Antarctic Cold Reversal following extensive sub-Antarctic glaciation.

12:45 - 13:30 **Poster session**

13:30 - 14:30 **Lunch**

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**THEME 4 Co-evolution of climate and life in the Antarctic & Southern Ocean**

**SATURNIA ROOM**

Chair: *Steven Chown*

14:30 - 15:00 Invited *Jan Strugnell*
Dating Antarctic ice sheet collapse: A molecular approach.

15:00 - 15:30 Invited *Pete Covey*
Today’s Antarctic terrestrial biodiversity - multiple signals of long-term presence and habitat persistence.

15:30 - 16:00 Invited *Jane Francis*
Use in paleobiology to reconstruct the evolution of Antarctic geography climate and ice sheets.

16:00 - 16:30 **Coffee break**

16:30 - 16:45 *Bridget Lee et al.*
Bioavailable iron in the Southern Ocean.

16:45 - 17:00 *James Crampton et al.*
Pulsed phytoplankton turnover in the Southern Ocean forced by stepwise Antarctic cooling.

17:00 - 17:15 *Ulrich Salzmann et al.*
Cenozoic terrestrial climate change and the demise of forests on Wilkes Land, East Antarctica.
17:15 - 17:30 Osamu Seki et al.
Coupling of Southern Ocean climate, dust and CO₂ over the past 10 million years.

17:30 - 17:45 Elie Verleyen et al.
The imprint of Neogene and Quaternary climate filtering on contemporary biogeographic patterns in the Antarctic lacustrine diatom biome.

17:45 - 18:15 Anna Wåhlin (SCAR 2013 visiting professor), Bethan Davis (SCAR fellow 2012)
SCAR opportunities for senior and junior scientists

SATURNIA ROOM
18:30 - 19:30 FILM (20 min)
“Past Antarctic Ice Sheet dynamics: the sound of a community effort”
Introduction by Giulia Massolino (OGS, film editor), live music performed by Marco Battigelli (Conservatorio Tartini, Trieste)
Invited presentation Peter Barrett “Role of film in science communication”
(Language: English)
Past Antarctic Ice Sheet Dynamics
Program

Friday September 15th

8:00  Onsite registration opens
8:30 - 10:30  **Poster Session**
10:30 - 11:00  **Coffee Break**
11:00 - 12:00  **SATURNIA ROOM**
   - Plenary discussion on theme 3 and 4
   - Chair: Steven Chown; Panel: Jane Francis, Andrea Dutton, Julie Brigham-Grette, Peter Convey, Jan Strugnell, Rob DeConto
12:00 - 13:30  **Lunch**

**THEME 5  Emerging research priorities of societal relevance**

**SATURNIA ROOM**

13:30 - 14:00  Invited Tim Naish et al.
   - Antarctica and the Southern Ocean in 2067: what future will we choose?
14:00 - 14:30  Invited Anna Whålin
   - Bounds on marine melting of the Antarctic ice sheet - lessons learned and knowledge gaps.
14:30 - 15:00  Invited Valerie Masson-Delmotte
   - IPCC AR6 cycle, and how to contribute
15:00 - 15:30  Invited Chuck Kennicutt
   - Reaching for the Horizon: Advancing Ice Sheet Dynamics Science
15:30 - 16:00  Invited Yeadong Kim
   - The importance of building international partnerships
16:00 - 16:30  Invited Steven Chown
   - Antarctic Engagement to avoid an Order from Strength world
16:30 - 17:00  **Coffee break**
17:00 - 18:00  Plenary discussion on future directions and priorities for PAIS
   - Chairs: Tim Naish, Laura De Santis; Panel: Anna Wahlin, Valerie Masson-Delmotte, Chuck Kennicutt, Yeadong Kim, Steven Chown, Rob DeConto, Carlota Escutia
Wrap up, best poster presentation student prizes
Closing ceremony

**OCEANIA AB ROOM**

18:00 - 19:00  **Sabrina Seafloor Survey Post-Cruise Meeting, N°1**  
Chair: Leanne Armand, closed

**SISSA - OGS (Via Beirut - Trieste)**

**ROOM A**

8:00 - 13:00  **Drilling beneath Antarctica's Ice Shelves.**  
A workshop to discuss science objectives and future drill sites to recover records of past climate and environmental change. Sites that test model-driven hypotheses of ice sheet dynamics will be a focus  
Chairs: Richard Levy, Gerhard Kuhn, Tim Naish, open

**ROOM B**

8:00 - 13:00  **Holocene climate variability off Wilkes Land, East Antarctica and Integrating coastal ice cores with high resolution sediment records**  
Chairs: Johan Etourneau, Carlota Escutia, Rob McKay, Nancy Bertler, closed

Photo Diego Cotterie