



# 10<sup>th</sup> Portuguese Conference on Polar Sciences

University of Aveiro | Rectory building (*Sala de Atos Académicos*)  
25-26 October, 2018

## DAY 1 - Thursday, 25 October

**8:15-11:00 Registration**

**8:15-17:00 Poster setup**

### 09:00 - 09:30 OPENING SESSION

Rector of the University of Aveiro **Paulo Jorge Ferreira**

Scientific Coordinator of the Centre for Environmental and Marine Studies **Ana Isabel Lillebø**

Co-coordinator of the PROPOLAR – Portuguese Polar Programme **José Xavier**

Coordinator of the Polar Office of FCT - Foundation for Science and Technology **Germana Santos**

Head of the Conference Organizing Committee **Joana Pereira**

### 09:30 - 10:30 INSTITUTIONAL TALKS

Chair: Irina Gorodetskaya

9:30 - 9:45 **APECS Portugal and the Portuguese Young Career Polar Scientists**

**José Seco & José Queirós, APECS Portugal/U Aveiro**

9:45 - 10:00 **An overview of PROPOLAR - Portuguese Polar Program**

**Ana David & Maria Teresa Cabrita, PROPOLAR**

10:00 - 10:15 **Polar office - Portuguese Foundation for Science and Technology**

**Germana Santos, FCT**

10:15 - 10:30 **Challenges, priorities and opportunities in Polar research**

**Peder Roberts, Royal Institute of Technology, Stockholm, Sweden**

**Rafel Simó, Spanish National Council for Scientific Research, Barcelona**

**Kirstin Werner, Polar Prediction Office, Alfred-Wegener Institute, Germany**

10:30 - 11:10 Coffee break

### 11:10 - 11:50 INVITED TALK

Chair: Joana Pereira

**Why does History matter to polar research today?**

**Peder Roberts, KTH Royal Institute of Technology, Stockholm, Sweden**



universidade de aveiro



cesam

centro de estudos do ambiente e do mar

**FCT**

Fundação para a Ciência e a Tecnologia

universidade de aveiro  
departamento de biologia



dbio

**Filsat**



Instituto de Geografia  
e Ordenamento do Território  
UNIVERSIDADE DE LISBOA



### 11:50 - 12:35 Session I : SOCIETAL ARENAS IN POLAR REGIONS

Chairs: Maria Teresa Cabrita & Ana Salomé David

11:50 - 12:05 **Bringing Antarctic science into policy making: lessons learnt from developing non-invasive penguin monitoring programs to modelling future scenarios**

*José Xavier, MARE-UCoimbra*

12:05 - 12:20 **How Team Adaptation Drives Performance in Extreme Environments: A Qualitative Study in Antarctica**

*Pedro Marques Quinteiro, WJCR-ISPA*

12:20 - 12:35 **ESTeEM Antarctica - Education of Science, Technology, Engineering, and Mathematics**

*Nuno Pereira, IPBeja*

12:35 - 14:30 Lunch Break (Refeitório Crasto)

### 14:30 - 15:45 Session II : WIDE MONITORING EFFORTS IN POLAR REGIONS

Chairs: António Correia & Vasco Miranda

14:30 - 14:45 **Biogeography of Arctic microbial communities across the Svalbard shelf**

*Catarina Magalhães, CIIMAR | FC-UPorto*

14:45 - 15:00 **Mercury in the Southern Ocean: Pathway from primary producers to top predators**

*José Seco, CESAM-UAveiro | SOI/St.Andrews, UK*

15:00 - 15:15 **Recent change detection of vegetation in Fildes Peninsula through multiscale remote sensing**

*Pedro Pina, CERENA/IST-ULisboa*

15:15 - 15:30 **Evaluation of new remote sensing platforms for monitoring thermokarst ponds (Canadian Subarctic)**

*Pedro Freitas, CEG/IGOT-ULisboa*

15:30 - 15:45 **LATA (Loadings and Tectonics of Antarctica peninsula) – Status report**

*Machiel Bos, SEGAL-UBI/IDL, Covilhã*

### 15:45 - 16:00 SPEED POSTER PRESENTATIONS

Chair: José Alves

16:00 - 16:30 Coffee break

### 16:30 - 17:30 Session III : POLAR REGIONS IN THE GLOBAL CLIMATE SYSTEM

Chairs: Sandra Mogo & Diogo Luís

16:30 - 16:45 **Changes in the long-term pattern of moisture transport for precipitation associated with Arctic sea ice melting**

**Luis Gimeno**, *EphysLab-UVigo, Spain*

16:45 - 17:00 **Atmospheric river events and associated precipitation patterns during the ALOUD campaign at Svalbard**

**Carolina Viceto**, *CESAM - UAveiro*

17:00 - 17:15 **Impact of stratospheric circulation on the moisture balance of the Arctic region and connection to tropical circulation**

**Rui Pedro Silva**, *CESAM - UAveiro*

17:15 - 17:30 **Atmospheric rivers and intense precipitation over the Southern Ocean and Antarctica: New insights from ship-borne and coastal measurements**

**Irina Gorodetskaya**, *CESAM - UAveiro*

### 17:30 - 18:30 POSTER SESSION

- **Viagem à Antártida - Introducing the Polar Science in the Portuguese Curriculum** **Marta E. Santo**, *AVE Ruy Luis Gomes*
- **Investigating probable gender discrimination in Polar research teams** **Pedro Marques Quinteiro**, *WJCR-ISPA*
- **Educational resources to enhance awareness on the impacts of Climate Change on the Ocean** **Daniela de Figueiredo**, *CESAM-UAveiro*
- **Extensive mapping of sorted stone circles with ultra-high resolution imagery: Preliminary results from the 2018 field campaign in Barton Peninsula, King George Island** **Vasco Miranda**, *CERENA/IST-ULisboa*
- **Erosion in permafrost coasts: new results of the very high-resolution UAV surveys of the Yukon coast, Canada** **Pedro Pina**, *CERENA/IST-ULisboa*
- **Monitoring coastlines in the Canadian Arctic through remote sensing** **Pedro Pina**, *CERENA/IST-ULisboa*
- **Geoelectric study to delineate the geoelectrical structure of the aquifer that provides water to the Peruvian Antarctic Station of Machu Picchu** **António Correia**, *ICT-UÉvora*
- **Geoelectrical survey to study permafrost distribution near the Korean Antarctic Station in King George Island** **António Correia**, *ICT-UÉvora*
- **ARs over the Arctic Ocean: trend in the anomalous moisture uptake** **Raquel Nieto**, *EphysLab-UVigo, Spain*
- **Application of image analysis techniques to the study of atmospheric aerosols captured in an arctic region** **Sandra Mogo**, *UBI-Covilhã*
- **Research on aerosols, clouds, and water vapour in Polar Regions** **Sandra Mogo**, *UBI-Covilhã*
- **Environmental Risk Assessment in Antarctica: field actions and preliminary results of the project ReACT** **Ruth Pereira**, *UPorto*
- **Phytoplankton community indicators of exposure to volcanic-mercury in Deception Island waters (Antarctica)** **Maria Teresa Cabrita**, *CEG/IGOT-ULISBOA*
- **Characterization of toll-like receptors gene family evolution in Antarctic notothenioid fish** **Cármén Sousa**, *CCMAR-UA Algarve*
- **Expression and immunohistochemical localization of ion-transport proteins in the gills of Antarctic fish at different salinities** **Pedro Guerreiro**, *CCMAR-UA Algarve*
- **Seal Occurrence and Habitat Use during Summer in Petermann Fjord, Northwestern Greenland** **Kate Lomac-MacNair**, *CCMAR, UA Algarve*

19:30 Meeting @Rossio for the Moliceiro experience (Largo do Rossio, 3800-209, Aveiro)

20:00 Dinner @Olaria (Cais da Fonte Nova, 3810-200, Aveiro)

## DAY 2 - Friday, 26 October

### 09:00 - 09:40 INVITED TALK

Chair: Irina Gorodetskaya

#### Biosphere – Atmosphere exchanges in the Polar Oceans

**Rafel Simó**, *Institute of Marine Sciences, Spanish National Council for Scientific Research, Barcelona*

### 9:40 - 10:55 Session IV : CHARACTERIZING BIOLOGICAL RESPONSES IN POLAR REGIONS

Chairs: Pedro Guerreiro & Guilherme Jeremias

#### 9:40 - 9:55 **Metabolic adaptations in phytoplankton continuously exposed to volcanic-mercury in Deception Island waters (Antarctica)**

**Maria Teresa Cabrita**, *CEG/IGOT-ULISBOA*

#### 9:55 - 10:10 **Unicellular grazers in the Arctic plankton: combined morphological and molecular studies on heterotrophic dinoflagellates from Disko Bay (Greenland)**

**Sandra Craveiro**, *GeoBioTec-UAveiro*

#### 10:10 - 10:25 **First data about intertidal meiobenthos from Deception Island (Antarctica). It is Heaven and Hell**

**Marcos Rubal García**, *CIIMAR-UPorto*

#### 10:25 - 10:40 **Transcriptomic profiling of immune response of *Notothenia coriiceps* to endotoxin**

**Cármén Sousa**, *CCMAR-UA Algarve*

#### 10:40 - 10:55 **From hot to cold waters: habitat and trophic ecological patterns of Southern Ocean squid as juveniles and adults**

**José Queirós**, *UAveiro | MARE-UCoimbra*

10:55 - 11:30 Coffee break

### 11:30 - 11:45 CONFERENCE CLOSING and OPENING APECS WORKSHOP

Executive Director of PROPOLAR **Maria Teresa Cabrita**

Head of the Conference Organizing Committee **Joana Pereira**

Member of the APECS Portugal Executive Committee **José Seco**

### 11:45 - 18:30 Workshop APECS - Portugal : S(t)ay Polar - How to communicate Science?