

SPARC

16. – 18. APRIL 2018 — BRNO, CZECH REPUBLIC

Current topics of student research projects on geosciences and biosciences in Polar and Alpine environments

The Final Announcement

Dear young polar researchers!

The **Students in Polar and Alpine Research Conference (SPARC)** is approaching fast. Please find further information about the conference in this final announcement. We believe many of us will meet on the ground of Masaryk University to discuss various and interesting topics on Polar and Alpine research.

Venue:

The conference will be held at the [Department of Geography](#), Masaryk University, Kotlářská 2, [building 4, room Z5 \(1st floor\)](#), Brno.

Programme:

Monday **16th April** – Geoscience section

1st key talk – **Matt Strzelecki**

Extreme processes shaping Arctic coasts in a period of rapid paraglacial landscape transformation

2nd key talk – **Tomáš Pánek**

Recent progress in understanding paraglacial landslides

Tuesday **17th April** – Bioscience section

1st key talk – **Monika Laichmanová**

Microbiological research on James Ross Island focused on rock-inhabiting fungi

2nd key talk – **Klára Řeháková**

Biological soil crusts – engineer of arid and semiarid areas

Wednesday **18th April** – Excursion

An excursion to Moravian Karst with a visit of the Macocha abyss (optional part of the programme). Please check the last page of this announcement to get more info.

Poster session is planned on Monday late-afternoon both for geosciences and biosciences posters.

Stay in contact with us!

Please see us on our [web page](#) or follow us on [Facebook](#). In case of uncertainties or questions, do not hesitate to contact us either by email (geopolarbrno@gmail.com) or on [Facebook](#).

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Students in Polar and Alpine Research Conference 2018

Programme outline

Venue Faculty of Science, Masaryk University Brno, Kotlářská 2
Building 4, room Z5 (1st floor)
[Plan of faculty](#)

Monday 16th April

9:00 – 9:30 Registration
9:30 SPARC 2018 opening – Daniel Nývlt
9:40 – 10:10 Keynote 1 – MATT STRZELECKI
10:10 – 12:10 Session 1 – Geosciences
13:45 – 14:15 Keynote 2 – TOMÁŠ PÁNEK
14:15 – 16:00 Session 2 – Geosciences
16:00 – 17:00 Poster Session
19:00 Monday's icebreaker evening (optional)

Tuesday 17th April

9:00 – 9:30 Registration
9:30 – 10:00 Keynote 3 – MONIKA LAICHMANOVÁ
10:20 – 12:10 Session 3 – Biosciences
13:45 – 14:15 Keynote 4 – KLÁRA ŘEHÁKOVÁ
14:30 – 16:10 Session 4 – Biosciences
16:10 Closing of SPARC 2018
16:20 Field trip information meeting
18:00 Tuesday's social evening (optional)

Wednesday 18th April

9:00 – 13:30 Field Trip – Moravian karst

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Monday 16th April

9:00 – 9:30

Registration

Session 1

9:30 – 9:40

Daniel Nývlt – opening of SPARC 2018

9:40 – 10:10

MATT STRZELECKI (keynote)

Extreme processes shaping Arctic coasts in a period of rapid paraglacial landscape transformation

10:10 – 10:30

Coffee break

10:30 – 10:50

Li Han

Hydrological modeling based on multiple data approaches in Boreal region with diverse permafrost conditions

10:50 – 11:10

Lenka Ondráčková

Introduction to the 2018 field study of braided Monolith and Keller streams, James Ross Island, Antarctica

11:10 – 11:30

Michaela Kňazková

Quantification of Holocene nivation rates on Cape Lachman, James Ross Island

11:30 – 11:50

Jakub Ondruch

Use of Structure-from-Motion for morphometry analyses of nivation structures on James Ross Island

11:50 – 12:10

Filip Hrbáček

Geophysical surveying of active layer thickness on CALM-S site, James Ross Island, Antarctic Peninsula

12:10 – 13:45

Lunch

Session 2

13:45 – 14:15

TOMÁŠ PÁNEK (keynote)

Recent progress in understanding paraglacial landslides

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- 14:15 – 14:30 *Coffee break*
- 14:30 – 14:50 **Jan Kavan**
On the origin and evolution of proglacial Lake Ragnar, Central Spitzbergen
- 14:50 – 15:10 **Arina Veres**
Climate variability during MIS-11 (370–440 ka BP) from the isotopic composition (δD , $\delta^{18}O$, $\delta^{17}O$) of Vostok ice core
- 15:10 – 15:30 **Klára Čížková**
Variability of the vertical ozone profiles at the Marambio Base, Antarctic Peninsula Region
- 15:30 – 15:50 **Klára Ambrožová**
Influence of large-scale atmospheric variability patterns and sea ice on air temperature on James Ross Island, Antarctica
- 16:00 – 17:00 **Poster Session**
- Ivan Agapkin**
Geophysical methods for assessing physical and mechanical properties of frozen soils
- Dmitry Khoroshaev**
Effect of freezing-thawing on CO₂ fluxes from soils in the field manipulation experiment
- Thomas Stehrer**
Heavy metal and polycyclic aromatic hydrocarbon contamination in soil from Longyearbyen, Svalbard
- Aleksandra Sumkina**
Convection of air in the snow cover of sea ice
- Evgeniia Kolodiaznaia**
Snow cover in the arctic city of St.Petersburg in winter in conditions of global warming
- Sebastian Kendzierski**
Influence of atmospheric circulation on total cloud cover and cloud types in central Spitsbergen
- 19:00 - ? Icebreaker evening (optional): [Restaurant U Oslů, Sokolska 10, Brno](#)

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Tuesday 17th April

9:00 – 9:30 *Registration*

Session 3

9:30 – 10:00 **MONIKA LAICHMANOVÁ** (keynote)
Microbiological research on James Ross Island focused on rock-inhabiting fungi

10:00 – 10:20 *Coffee break*

10:20 – 10:50 **Isak Haldorsson Slettebø**
Peak-summer CO₂ balance on a thawing permafrost peat mire in northern Norway

10:50 – 11:10 **Nataliia Petrzhiik**
The huge heating experiment: initial results

11:10 – 11:30 **Anna Bobrik**
Spatial variability of soil organic carbon and active layer thickness along a latitudinal transect from taiga to tundra of Western Siberia

11:30 – 11:50 **Anna Sefilian**
Profile carbon distribution in soils of typical landscapes of Western Siberia

11:50 – 12:10 **Tereza Hromádková**
Past and present of Arctic terns' studies

12:10 – 13:45 *Lunch*

Session 4

13:45 – 14:15 **KLÁRA ŘEHÁKOVÁ** (keynote)
Biological soil crusts – engineer of arid and semiarid areas

14:15 – 14:30 *Coffee break*

14:30 – 14:50 **Jan Kavan**
Environmental factors controlling Svalbard reindeer population fitness

14:50 – 15:10 **Michaela Marečková**
The chlorophyll fluorescence of Antarctic lichen *Dermatocarpon polyphyllum*



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15:10 – 15:30

Alla Orekhova

Surface structures characteristics of Antarctic lichens studied by a digital microscope approach

15:30 – 15:50

Barbora Chattová

Taxonomy, ecology and biogeography of diatoms (Bacillariophyta) of two isolated sub-Antarctic Islands

15:50 – 16:10

Kateřina Snopková

To be announced

16:10

Closing of SPARC2018, field trip information meeting

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Field trip

The excursion will take place on Wednesday 18th April and we will visit the **Macocha Abyss**, which is located approx. 20 km to the northeast of Brno, in the protected landscape area known as Moravian Karst.

The Macocha Abyss is notable for being the deepest light hole abyss within the region of Central Europe (the total explored depth of the abyss to this day is 187 m).

The public transportation tickets from Konecneho namesti (Konecny square) towards Macocha will be provided for those who apply upon conference registration.

*As an optional part of the excursion it is possible to visit the **Punkva Caves**, which costs 180 CZK or 160 CZK for students with valid ISIC card below 26 years old (not paid by the conference organization) and takes about 60 minutes (part of the tour is a boat cruise on the underground river).*

Program:

9:30	meeting at the Faculty of Science (main entrance)
11:00 – 12.30	walk around the Macocha Abyss and Moravian Karst
12:30 – 13:30	<i>Punkva Caves guided tour (optional)</i>
15:30 – 16:00	return to Brno (expected)

Please note that light hiking shoes and clothes are highly recommended for the excursion!

In case of bad weather, there will be alternative program – trip around Brno city centre.

