What?

WORKSHOP

Morphogenesis & Biomineralization

in Foraminifera and other organisms

When? July 10-12, 2019

Where?



Instytut Nauk Geologicznych PAN
Institute of Geological Sciences
Polish Academy of Sciences
Research Centre in Kraków
ul. Senacka 1, POLAND



Why?

Very little is known about mechanisms controlling morphogenetic processes in Foraminifera in comparison to the knowledge based on extensive studies on proxies and biomineralization. Therefore, we would like to start filling that gap by sharing ideas on novel methodologies and the latest discoveries on morphogenesis and biomineralization. We plan a brainstorming workshop with two open sessions and complementary closed discussion panels focused on emerging research frontiers and future collaboration prospects. We hope that all sessions and networking activities in the unique atmosphere of Old Town in Kraków can manage to stimulate vibrant discussions and progress our knowledge on foraminiferal *Growth and Form*.

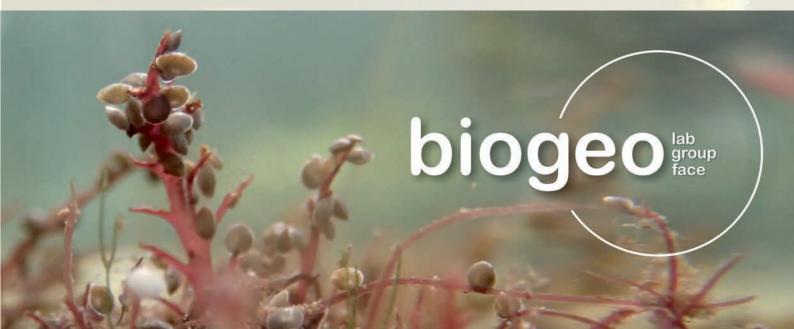
Who?

Biogeosystem Modelling Group

Organizing Committee

Chair Logistics

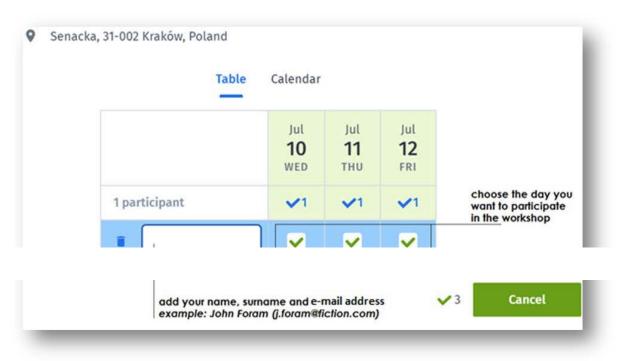
- Jarosław Tyszka \rightarrow ndtyszka@cyfronet.pl
- Anna Spadło → ndspadlo@cyfronet.pl
- Agata Jarzynka
- Jan Goleń
- Karolina Kobos





Registration

- registration is free of charge
- please cover all your costs (trips, hotels, food etc.)
- coffee/tea/water will be available
- registration is obligatory via: https://doodle.com/poll/vsihpfa988d7ncen



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Workshop program

Invited speakers

Ulf Bickmeyer	
Jelle Bijma	© AVI
Zofia Dubicka	TET WARRANT IN THE TENT OF THE
Jan Goleń	ING PAN
Martin J. Head ⊳ Research Center Open Seminar	Breck University
Johann Hohenegger	THE PARTY OF THE P
Jarosław Stolarski	
Danna Titelboim	Reserved of the second of the
Jarosław Tyszka	ING PAN
Osmín Jared Vásquez Hernández > Research Center Open Seminar	

Wednesday -10.07.2019

10:30 - 13:00

OPEN SESSION

(*30 min. lecture + 10 min. discussion)



10:30 – 10:40 ⊳ Jarosław Tyszka: *Introduction to the Workshop*

10:40 – 11:20 ⊳ Johann Hohenegger: *Dependence in foraminiferal growth and*

development on biomineralization and chamber

(test-) form, and possible disturbances

11:20 – 11:40 - - - - - COFFEE BREAK - - - - -

11:40 – 12:20 ⊳ Jelle Bijma: Calcification mechanisms in foraminifera and proxie

incorporation

12:20 – 13:00 ⊳ ZofiaDubicka: *Ultrastructure of foraminiferal shells*:

Phylogenetic and taxonomic implications

LUNCH BREAK 13:00 - 14:30

OPEN LECTURE 14:30 - 15:10

Research Center Seminar

14:30 – 15:10 ▷ Osmín Jared Vásquez Hernández: *Microfaunal content of* the sedimentary formations of Guatemala

15:10 - 16:30

CLOSED SESSION

(present/future projects/meetings)

15:10 – 15:30 ➤ Presented on behalf of G. Racki, Z. Dubicka by JT: NCN Opus-15 Project Middle Paleozoic Micropaleontology; calcareous microfossils, incl. foraminifers; impact of diagenesis on mineralization patterns; in fossilio vs in vivo methodology

 $15:30 - 16:30 \triangleright Discussion - to be proposed$

16:30 - 17:00 ➤ Presentation of the BioGeoLab

THE OLD TOWN SIGHTSEEING + DINNER 17:00 - 20:00

<u>Thursday -11.07.2019</u>

10:00 - 16:00

OPEN SESSION

(*30 min. lecture + 10 min. discussion)

10:00 − 10:40 > Ulf Bickmeyer: <i>The holobiont sponge: a fluorescent journey from basic research to application</i>	
10:40 – 11:20 ⊳ Jarosław Stolarski: Day and night on the reef: secrets of diurnal biomineralization rhythm of scleractinian corals	
11:20 – 11:40 COFFEE BREAK	
11:40 – 12:20 ⊳ Danna Titelboim: Controlling calcification- insights from temperature experiments	
12:20 – 13:00 ⊳ Jarosław Tyszka: <i>Linking morphogenesis with biomineralization in Foraminifera</i>	
13:00 – 14:30 LUNCH BREAK	
14:30 – 15:10 ⊳ Jan Goleń: <i>Organization and dynamics of actin cytoskeleton in</i> Foraminifera -functional and evolutionary perspective	
15:10 – 15:20 ⊳ Jarosław Tyszka: <i>Future workshops</i>	
15:20 – 15:30 ⊳ Jelle Bijma: LiveForams-2020 - Living Foraminifera as a Key to understand the Past, Present and Future – Workshop announcement	
15:30 – 16:00COFFEE BREAK	

16:00 - 17:30

CLOSED SESSION

16:00 – 17:30 ⊳Jarosław Tyszka: NCN Opus-10 Project - *Discussions on: actin dynamics, morphogenesis and biomineralization*

17:30 – 20:00 SURPRISE + DINNER



Friday – 12.07.2019

9:00 - 11:30

CLOSED SESSION

9:00 – 10:20 **>** *Future prospect*: Confocal microscopy vs TEM – comparative approach; inhibition experiments; fossil vs live forams –novel methodologies; diagenetic overprints

10:40 – 11:30 ⊳ Jarosław Tyszka: *Frontiers* in morphogenesis and biomineralization

11:30 - 13:00

LUNCH BREAK

13:00 - 14:00

OPEN LECTURE
Research Center Seminar

13:00 – 14:00 ▷ Martin J. Head: The evolving geological time scale: a focus on the Quaternary including the Anthropocene

14:00 - 16:00

DISCUSSIONS (to be proposed)

