

# Program

Wednesday, 28th of August

- 10:00–10:45 WELCOME & OPENING REMARKS & COST ACTION PRESENTATION**  
WELCOME TALK – ŁUCJA KOWALEWSKA, JOHN W. C. DUNLOP
- SESSION I – LARGE-SCALE CURVATURE IN NATURE & VISUALISATION**  
SESSION CHAIR – JOHN W. C. DUNLOP
- 10:45–11:15 JAN CHRISTOPH OTTO (PLUS SALZBURG, AUSTRIA)**  
*Shaping the Earth's surface – does curvature matter?*
- 11:15–11:45 JESSICA HUSS (BOKU VIENNA, AUSTRIA)**  
*Humidity-driven shape morphing in cactus spines*
- 11:45–12:15 MARGOT RIGGI (UNIVERSITY OF UTAH, USA)**  
*3D modeling and animation for hypothesis exploration*
- 12:15–13:30 LUNCH**
- SESSION II – ORGANS & TISSUES**  
SESSION CHAIR – SILVIA MIHĂILĂ
- 13:30–14:00 FÉLIX HARTMANN (INRAE, FRANCE)**  
*The role of curvature and (de)curving in plant acclimation and tropisms*
- 14:00–14:30 STANISŁAW ŻUKOWSKI (UNIVERSITY OF WARSAW, POLAND)**  
*The interplay of physics and geometry in the morphogenesis of the jellyfish canal network*
- 14:30–15:00 NICHOLAS KURNIAWAN (EINDHOVEN UNIVERSITY OF TECHNOLOGY, NETHERLANDS)**  
*What's in the 3rd (and 4th) dimension?*
- 15:00–15:30 COFFEE BREAK**
- 15:30–16:00 MARIJA MATEJECIC (INSTITUTE FOR BIOENGINEERING OF CATALONIA, SPAIN)**  
*Mechanics of cell extrusion in the intestinal epithelium*
- 16:00–16:30 SEBASTIAN CALLENS (IMPERIAL COLLEGE LONDON, UK)**  
*Rationally mesostructured surfaces for geometry-guided tissue growth*
- COST – WORKING GROUPS (WGS) MEETINGS**
- 16:30–16:45 WG SESSION – INTRODUCTION**
- 16:45–18:15 SEPARATE MEETINGS OF THE WGS**
- 18:15–18:30 COFFEE & REFRESHMENTS**
- 18:30–19:30 JOINT DISCUSSION**

# Thursday, 29th of August

## CONTINUATION OF SESSION I - LARGE - SCALE CURVATURE IN NATURE & VISUALISATION

**9:00-9:30** ARIELLE BLONDER (TECHNION, ISRAEL)  
*Sustainable curving: Self-morphing architecture, learnt from plants*

## SESSION III - CELL COLLECTIVES, CELLS & MICROORGANISMS SESSION CHAIR – ANUPAM SENGUPTA

**9:30-10:00** MARIO BENN (ETH ZURICH, DEPARTMENT OF HEALTH SCIENCES AND TECHNOLOGY, SWITZERLAND)  
*Humidity-driven shape morphing in cactus spines*

**10:00-10:30** CÉCILE BIDAN (MAX PLANCK INSTITUTE OF COLLOIDS AND INTERFACES, GERMANY)  
*Shaping slime: how to guide bacterial biofilm morphology via substrate properties.*

**10:30-11:00** COFFEE BREAK

**11:00-11:30** JAVIER BUCETA (UNIVERSITY OF VALENCIA, INSTITUTE FOR INTEGRATIVE SYSTEMS BIOLOGY, SPAIN)  
*The Mechanobiology of Buckling during Bacterial Filamentation*

**11:30-12:00** ULRICH SCHWARZ (HEIDELBERG UNIVERSITY, INSTITUTE FOR THEORETICAL PHYSICS, GERMANY)  
*Modelling cell shape and movement in structured environments*

**12:00-12:30** MARIE-LY CHAPON (INSTITUT DE SCIENCE DES MATÉRIAUX DE MULHOUSE, FRANCE)  
*Role of substrate curvature in cell migration and epithelium morphogenesis*

**12:30-13:00** CATERINA TOMBA (INSTITUT DES NANOTECHNOLOGIES DE LYON, FRANCE)  
*Epithelial cells surfing the wave, or adapting to curvature changes*

**13:00-14:30** LUNCH

**14:30-15:30** POSTER FLASH TALKS

**15:30-17:00** POSTER SESSION

**19:00-23:00** CONFERENCE DINNER & NETWORKING

# Friday, 30th of August

## SESSION IV - MEMBRANES & MOLECULAR LEVEL

SESSION CHAIR – MICHAŁ BYKOWSKI

- 9:00–9:30 GERD SCHRÖDER-TURK (MURDOCH UNIVERSITY, AUSTRALIA)  
*Optical signals as indicators of Gyroid structure development in butterflies*
- 9:30–10:00 BODO WILTS (UNIVERSITY OF SALZBURG, AUSTRIA)  
*Dis/ordered photonic networks in insects*
- 10:00–10:30 COFFEE BREAK
- 10:30–11:00 MICHAŁ GABRUK (JAGIELLONIAN UNIVERSITY, POLAND)  
*Molecular insights of membrane remodeling by LPOR*
- 11:00–11:30 JAN M. SISCHKA (TU DRESDEN, GERMANY)  
*Modeling shapes of multi-component biomembranes*
- 11:30–12:00 AGUSTIN MANGIAROTTI (MAX PLANCK INSTITUTE OF COLLOIDS AND INTERFACES, GERMANY)  
*Membrane wetting and remodeling by biomolecular condensates*

12:00–13:30 LUNCH

## SESSION V - METHODOLOGICAL ADVANCES

SESSION CHAIR – MACARENA SIRI

- 13:30–14:00 JITKA ČEJKOVÁ (UNIVERSITY OF PRAGUE, CZECHIA)  
*Mimicking Biological Structures through Synthetic Systems*
- 14:00–14:30 JENS VINGE NYGAARD (AARHUS UNIVERSITY, DENMARK)  
*Mechanogeometry of nanostructured foams – application in cartilage regeneration*
- 14:30–15:00 EMELY BORTEL (XPLORAYTION GMBH, GERMANY)  
*Bone shape from organ to individual cell level - 3D imaging via synchrotron CT*
- 15:00–15:30 IOANNA ZERGIOTI (NATIONAL TECHNICAL UNIVERSITY OF ATHENS, GREECE)  
*Laser Induced Forward Transfer as a bioprinting method and applications*
- 15:30–16:00 CONCLUDING REMARKS, POSTER PRIZES, FOTO AWARD

## Visiting Warsaw

To get around town we encourage you to use public transport. There is a 3-day ticket available, valid in all public transport lines for 72 hours from the first validation. For short trips, there are 20 and 75 minute tickets. [Tickets](#) can be purchased in the vending machines located on all metro stations or select tram and bus stops, or online using apps like [jakdojade.pl](http://jakdojade.pl)

To check the most convenient public transport connection, you can use Google Maps or public transport website, [www.wtp.waw.pl](http://www.wtp.waw.pl)

Next to the conference venue, there is a Metro station "[Centrum Nauki Kopernik](#)" - 10 minute walk, and a bus stop "[Biblioteka Uniwersytecka](#)" - 3 minute walk, both wheelchair and stroller accessible.

If you arrive to Warsaw early or stay here longer, check out the Warsaw Tourism website at [www.go2warsaw.pl/en](http://www.go2warsaw.pl/en)

## Venue

The venue is located in the city centre, Dobra 55 building, Faculty of Applied Linguistics, Warsaw, Poland. The conference is organized in the lobby and lecture hall closer to the entrance on the corner of Browarna and Lipowa street. To see the location on the map, follow the QR code link or [click here](#).



### REGISTRATION

The registration, located near the entrance, will be open from 9:30 Wednesday until the end of the first day of the conference. If you wish to register at a later time, just ask one of the co-organizers (with a red ribbon) or contact us directly - the contact details will be provided at the registration desk.

We are required by the COST to host a certain number of participants each day. **Please confirm your attendance each day of the conference by signing the attendance list at the registration desk or during sessions.**

### CONFERENCE DINNER

The conference dinner will take place on Thursday in the University of Warsaw Library Gardens, right next to the conference venue. Have your conference badge with you! Check the entrance location using a QR code or [click here](#).

