

Workshop**November 21 - 25, 2022****of the Thematic Programme on****“Mathematical Methods for the Study of Self-organization in the
Biological Sciences”****November 14 - December 9, 2022, organized by****Pierre Degond (IMT), Marie Doumic (Sorbonne U, Paris), Anna Kicheva (ISTA,
Klosterneuburg), Sara Merino-Aceituno (U Vienna), Christian Schmeiser (U Vienna)****• Monday, November 21st, 2022**13:00 – 14:00 **Registration**14:00 – 14:15 **Welcoming words**14:15 – 15:00 **Vincent Calvez (U Lyon 1)***TBA*15:00 – 15:30 **Coffee break**15:30 – 16:15 **Elly Tanaka (U Vienna)***TBA*16:15 – 17:30 **Reception and poster session****• Tuesday, November 22nd, 2022**09:00 – 09:45 **Katharina Wolf (Radboud U, Nijmegen)***TBA*09:45 – 10:00 **Break**10:00 – 10:45 **Maria Bruna (U Cambridge)***Excluded volume and order in systems of Brownian needles*10:45 – 11:30 **Coffee break**11:30 – 12:15 **Patrick Müller (U of Konstanz)***Analysis and control of multicellular patterns*12:15 – 14:45 **Lunch break**14:45 – 15:30 **Sophie Hecht (Sorbonne U, Paris)***TBA*15:30 – 16:00 **Coffee break**16:00 – 16:45 **Doron Levy (U of Maryland)***Group dynamics in phototaxis*

- **Wednesday, November 23rd, 2022**

09:00 – 09:45 **Katharina Sonnen (Hubrecht Institute)**

Signaling dynamics in the control of embryonic development and tissue homeostasis

09:45 – 10:00 **Break**

10:00 – 10:45 **Diane Peurichard (INRIA Paris)**

Diffusion limit of a transport equation leading to volume-exclusion chemotaxis

10:45 – 11:30 **Coffee break**

11:30 – 12:15 **Eric Theveneau (CBI, Toulouse)**

Dynamics of epithelial-mesenchymal transition in the early embryo: how can modelling help an experimental biologist?

18:30 – **Workshop Dinner**

- **Thursday, November 24th, 2022**

09:00 – 10:00 **Zuzanna Szymanska (U Warsaw)**

Bayesian inference of a non-local proliferation model

09:45 – 10:00 **Break**

10:00 – 10:45 **Alba Diz-Muñoz (EMBL, Heidelberg)**

More than the sum: How does a composite interface govern function at the cell surface?

10:45 – 11:30 **Coffee break**

11:35 – 12:15 **Raluca Eftimie (U of Franche-Comte)**

TBA

12:15 – 14:45 **Lunch break**

14:45 – 15:30 **Human Rezaei (INRAe, Jouy en josas)**

TBA

15:30 – 16:00 **Coffee break**

16:00 – 16:45 **Wei-Feng Xue (University of Kent)**

Comparative analysis of the relative fragmentation stabilities of polymorphic amyloid fibrils

- **Friday, November 25th, 2022**

09:00 – 09:45 **Daria Siekhaus (ISTA, Klosterneuburg)**

The dynamic dance of immune cells and their environment that allows invasion

09:45 – 10:00 **Break**

10:00 – 10:45 **Klemens Fellner (U Graz)**

Oscillatory behaviour of a bi-monomeric, nonlinear Becker-Döring type model for prion dynamics

10:45 – 11:30 **Coffee & goodbye**

All talks take place at ESI Boltzmann Lecture Hall! Wearing an FFP2 mask is mandatory!