
Mathematical Biology on the Mediterranean Coast Online Conference 2021

Living matter growth, migration and interaction models

Tuesday 25/05

9 am - 10 am Vasiliki Bitsouni (National and Kapodistrian University of Athens, Greece):

Non-local mixed ODE-PDE heterogeneous population models for cancer growth and invasion

10 am - 11 am Elishan Christian Braun (Roma 3 University, Italy):

Mathematical modelling and parameter estimation of Organ-on-chips (OOC)

11 am - 11.15 am Coffee break

11.15 am - 12.15 pm Emma Leschiera (Sorbonne Université, France):

Mathematical modelling of the CD8+ T cell immune response to heterogeneous tumours

12.15 pm - 2 pm Lunch break

2 pm - 3 pm José Antonio Carrillo de la Plata (University of Oxford, UK):

Masterclass: *Aggregation-Diffusion equations and systems in mathematical biology: stationary states, phase transitions and qualitative behavior*

3 pm - 3.15 pm Questions

3.15 pm - 4.15 pm José Antonio Carrillo de la Plata (University of Oxford, UK):

Masterclass: *Aggregation-Diffusion equations and systems in mathematical biology: stationary states, phase transitions and qualitative behavior*

4.15 pm - 4.30 pm Questions

Wednesday 26/05

9 am - 10 am Gissell Estrada-Rodriguez (Sorbonne Université, France):

Macroscopic description of nonlocal movement of biological systems in R^n and in networks.

10 am - 11 am Giada Fiandaca (Politecnico di Torino, Italy):

Tumour phenotypic heterogeneity: the impact of mixing evolutionary trade-offs with a dynamic surrounding micro-environment

11 am - 11.15 am Coffee break

11.15 am - 12.15 pm Sophie Hecht (Sorbonne Université, France):

Mechanical constraints to cell cycle progression in a pseudostratified epithelium

12.15 pm - 2 pm Lunch break

2 pm - 3 pm Tommaso Lorenzi (Politecnico di Torino, Italy):

Masterclass: *Partial differential equation models of cancer dynamics and tumour growth*

3 pm - 3.15 pm Questions

3.15 pm - 4.15 pm Tommaso Lorenzi (Politecnico di Torino, Italy):

Masterclass: *Partial differential equation models of cancer dynamics and tumour growth*

4.15 pm - 4.30 pm Questions

Thursday 27/05

9 am - 10 am Nadia Loy (Politecnico di Torino, Italy):

Nonlocal kinetic models for cell-cell adhesion

10 am - 11 am Nicole Roselli (Sapienza University, Italy)

A coupled PDE-ODE model for short range dynamics on microfluidic chips

11 am - 11.15 am Coffee break

11.15 am-12.15 pm Xinran Ruan (Politecnico di Torino, Italy):

Populations with heterogeneous mobility and proliferation rate

12.15 pm - 2 pm Lunch break

2 pm - 3 pm Chiara Villa (St Andrews University, UK) :

Mathematical modelling of early stages vasculogenesis and cell-matrix interactions

3 pm - 4 pm Markus Schmidtchen (Technische Universität Dresden, Germany):

Incompressible limit for a two-species tumour growth model

4 pm - 5 pm Martina Conte (Universidad Granada, Spain):

On a multiscale model for glioma invasion: interplay between phenotypic heterogeneity, acidity and vasculature
