Workshop

"Young Women in Mathematical Biology"

April 1-3, 2025

organized by

Eugenia Franco, Anna Logioti

- **Tuesday, April 1**

8:00 - 9:00	*Registration*
9:00 - 10:00	**Marie Doumic Jauffret**
	Asymptotic analysis and estimation problems in population dynamics
10:00 - 11:00	**Vivi Rottschäfer**
	Modelling drug dynamics in the brain
11:00 - 11:30	*Break and Poster session*
11:30 - 12:10	**Laura Kanzler**
	First order non-instantaneous corrections in collisional kinetic models
12:10 - 12:35	**Sofie Verhees**
	Coupling cell signalling and mechanics: a mathematical model of RhoA-driven mechanotransduction
12:35 - 13:50	*Lunch Break*
13:50 - 14:40	**Diane Peurichard**
	Large-scale Dynamics of Self-propelled Particles moving through Obstacles: How Environment Affects Particle Swarms
14:40 - 15:30	**Quiyao Peng**
	Bridging models at different scales for cellular forces and diffusive compounds in the living tissue
15:30 - 16:00	*Break and Poster session*

16:00 - 16:40	**Giada Fiandaca**
	Overcoming Hypoxic Radiotherapy Resistance: Can Eco-Evo insights improve Dose Painting?
16:40 - 17:20	**Burcu Gürbüz**
	Dynamics and qualitative analysis of photosynthetic reactions
17:20 - 17:45	**Daphne Nesenberend**
	Mathematical models for in-vitro mechanically induced pattern formation, two case studies
17:45 - 18:10	**Jolien Kamphulis**
	Effect of spatially periodic coefficients in pattern forming systems

- **Wednesday, April 2**

9:00 - 10:00	**Vivi Rottschäfer**
	Can you always determine parameters from data in a unique way?
10:00 - 11:00	**Mariya Ptashnyk**
	From individual cells to tissues: mutiscale modelling, analysis and simulation of chemical and mechanical interactions in biological tissues
11:00 - 11:30	*Break and Poster session*
11:30 - 12:20	**Hui Yu**
	Traceability of Water Pollution: An Inversion Scheme Via Dynamic Complex Geometrical Optics Solutions
12:20 - 12:45	**Inmaculada Benítez**
	Asymptotic behavior of solutions to the Becker-Döring equations
12:45 - 13:10	**Elisa Paparelli**
	Mathematical modelling and optimal control of epidemiological systems across scales
18:30	*Conference Dinner*

- **Thursday, April 3**

09:00 - 10:00	**Marie Doumic Jauffret**
	Asymptotic analysis and estimation problems in population dynamics
10:00 - 11:00	**Mariya Ptashnyk**
	From individual cells to tissues: mutiscale modelling, analysis and simulation of chemical and mechanical interactions in biological tissues
11:00 - 11:30	*Break and Poster session*
11:30 - 12:10	**Chiara Villa**
	Calibration and analysis of phenotype-structured PDEs of cancer adaptive dynamics
12:10 - 12:35	**Federica Padovano**
	The development of drug resistance in metastatic tumours under chemotherapy: An evolutionary perspective
12:35 - 13:50	*Lunch Break*
13:50 - 14:40	**Cinzia Soresina**
	Derivation of cross-diffusion models in population dynamics: dichotomy, time-scales, and fast-reaction
14:40 - 15:30	**Havva Yoldas**
	Macroscopic effects of an anisotropic Gaussian-type repulsive potential on a dense system of elongated particles
15:30 - 16:00	*Break and Poster session*
16:00 - 16:25	**Lorena Pohl**
	Becker-Döring type models with a broken chain of coagulation
16:25 - 16:50	**Luce Breuil**
	Mathematical modeling and statistical study of a two-phased ageing model in drosophila
16:50 - 17:15	**Milene Santos**
	Numerical challenges in modelling light propagation in the cornea