

# *Biomathematics Seminar 2019*

*11th Edition*

*Corfu, 9-12 July 2019*

## *Program*

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	Tuesday 9	Wednesday 10	Thursday 11	Friday 12
	Paris CDG - Corfu (06:00 - 10:35)	La Grotta beach	Presentations (9:00-10:55)	Corfu - Paris CDG
Morning	Presentations (11:30 - 13:10)		Data Science Challenge (11:00-12:30)	(10:25 - 12:20)
Lunch	Buffet	-	Buffet	
Afternoon	Presentations (14:15-17:55)	TBA	Data Science Challenge	
Dinner	TBA	-	-	

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# Oral Presentations

9th July

## ***Session 1 : Modelling and Inference for Dynamical Systems***

Chair: Gautier Viaud

11:30 - Sarah Lemler

*Nonparametric drift estimation for diffusions with jumps driven by a Hawkes process*

11:55 - Véronique Letort - Le Chevalier

*Towards (mechanistic) modelling of plant emergence*

12:20 - Dimitri Fourcade

*Identifiability of the GreenLab plant growth model*

12:45 - Antonin Della Noce

*Perspectives on mean field modelling in biological systems*

13:10 Lunch Break

14:15 - Julie Hémond

*Bayesian estimation on heterogeneous population models of plants in interaction*

14:40 - Andreas Markoulidakis

*Improved Hamiltonian based algorithms*

15:05 - Mahmoud Bentrion

*Reachability design through Approximate Bayesian Computation*

15:30 - Samis Trevezas

*MLE and asymptotic properties for characteristics related to discrete time nonparametric Markov-type models*

15:55 Coffee Break

## ***Session 2 : Deep Supervised Learning***

Chair: Véronique Letort

16:15 - Walid Hammache

*Convolutional Neural Networks for pixel-based crop identification*

16:40 - Martin Charachon

*Mixing weak supervision active learning for liver segmentation*

17:05 - Mathilde Sautreuil

*Neural Networks for survival analysis in high-dimension*

17:30 - Elvire Roblin

*Survival prediction after an adjuvant treatment in breast cancer using Artificial Neural Networks on censored data*

*11th July*

***Session 3 : Data Analysis and Representation Learning***

Chair: Sarah Lemler

9:00 - Sylvain Lannuzel

*Spatial interpolation of climatic data from weather stations and optimal network design*

9:25 - Jun Zhu

*Learning representation for recruitment optimization*

9:50 - Gautier Viaud

*Recent breakthroughs in Natural Language Processing - Application to resumes*

10:15 - Paul-Henry Cournède

*Principal feature analysis with an application to radiology indices*

10:40 - Prasanna Mayilvahanan

*Clustering indices and autoencoders*