MODELIFE

http://univ-cotedazur.fr/fr/idex/projets-structurant/modelife

UNIVERSITÉ CÔTE D'AZUR
CORE PROGRAM
MODELING LIFE

- A community of Researchers concerned by Models in Life Sciences
- An interdisciplinary Master Program in Mathematical Sciences for Biomedical Data and Biophysics
- To spread the use of models in Life Sciences research
- To foster synergies between various modeling approaches

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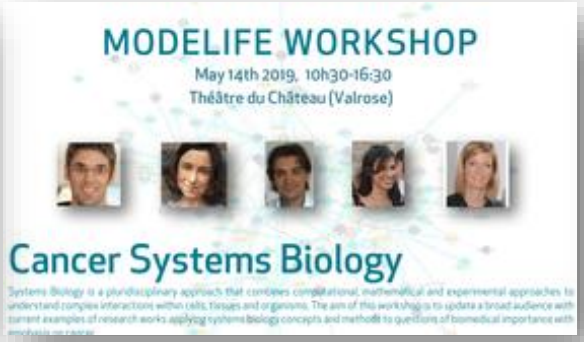

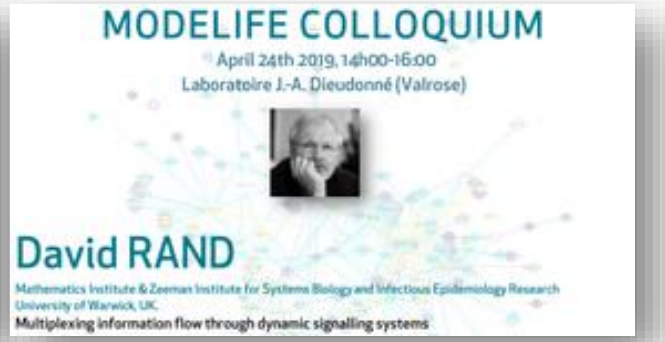

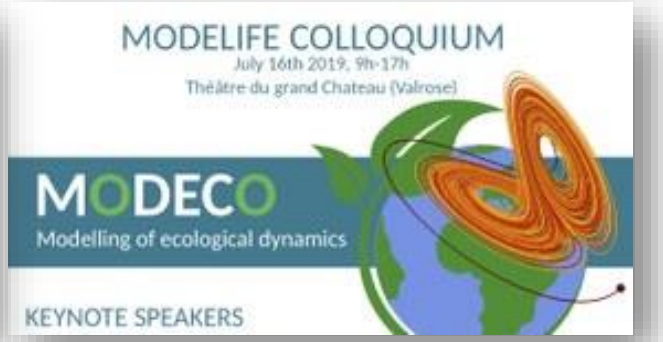

MODELIFE Annual Meeting

November 5-6th, 2019

Résidence Premium Les Rives de Cannes Mandelieu

Tuesday 5th			
14:00	Welcome		
14:15	I. Mus-Veteau	IBV	UCAncer "Modeling the plasticity of cancer stem cells"
14:45	L. Counillon	LP2M	Na+/H+ Exchangers perform isotopic fractionation of transported cations
15:15	L. Mailleret	INRA	Pulsed perturbations in population dynamics
15:45	Coffee break		
16:30	H. Collavizza	I3S	Formal methods for models in Biology
17:00	M. Rauzi	IBV	AP-DV embryo patterning synergy in cell shape change and tissue morphogenesis
17:30	S. Fiorucci	ICN	From genes to perception: decoding chemical senses by numerical and molecular modeling.
17:45	E. Firrippi	INRIA	Period-control in a coupled system of two genetic oscillators for synthetic biology
18:00	L. Corrêa	I3S	Computational strategies for identifying active modules in pancreatic cancer
18:15	J. Stéohano	LJAD	Lung volume VS air flow: a match for shear stresses distribution in the bronchial tree.
18:30	Refresh and round table, diner		
Wednesday 6th			
09:00	A. Seminara	INPHYNI	Bacterial biofilm translocation on osmotic gradients
09:30	F. Lombard	LOV	Ecophysiological modeling of plankton: from laboratory data to models and from models to in-situ data.... and vice versa
10:00	E. Pécou	LJAD	MODELIFE core program: achievements and future directions
10:30	Coffee break		
11:15	B. Mauroy	LJAD	Vader center : virtual lungs and applications in UCA
11:45	R. Mc Minds	UCA MSI	A novel generalized linear model framework for coevolutionary analysis
Lunch			
13:30	Poster session		
14:30	S. Azoulay and I. Mus-Veteau	IBV IBV	Panicein A Hydroquinone inhibits Patched drug efflux activity and increases vemurafenib efficacy against melanoma cells in vitro and in vivo
15:00	D. van Essen	IRCAN	Combinatorial specificity of transcription factor binding & function
15:30	L. Tattini	IRCAN	Pangenomic references: improving yeast genomics with graph-based tools
16:00	S. Bonnefond	INPHYNI/IPMC	Multiple scattering-assisted fluorescence amplification: towards biological applications
16:30	M. Simsir	IBV/INRIA	On the drug export mechanism by RND efflux pumps
16:45	D. Boyenval	I3S	A discrete cell cycle model: from phases characterization toward observable properties verification

MODELIFE COLLOQUIUM

March 2nd, 2020, 15h30-16:30

Laboratoire J.-A. Dieudonné (Valrose)

Alejandro MAASS

Professor, Department of Mathematical Engineering, Faculty of Mathematical and Physical Sciences, U. of Chile
Director of the Center of Mathematical Modeling (UMI CNRS 2807)
Associate Researcher at the Center for Genome Regulation.

Dynamical Networks in Systems Biology:
What keeps microorganisms together? lessons from the Atacama Desert

In this talk we will discuss about problems arising from the study of biodiversity, in particular communities of microorganisms. The main question is to understand why the communities are together and how do they configurate their dynamical behaviour. As case study we will consider communities of microorganisms found in the Atacama Desert and the main technical/mathematical issues concern the study of their metabolism.