FIFTH WORKSHOP

"DYNAMICAL SYSTEMS APPLIED TO BIOLOGY AND NATURAL SCIENCES"

10-12 FEBRUARY 2014

CMAF | LISBON UNIVERSITY

PROGRAM

UNIVERSIDADE DE LISBOA | CMAFUL | FCT Fundação para a Ciência e a Tecnologia | SEVENTH FRAMEWORK PROGRAMME | DENFREE

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FEBRUARY 10TH 2014

09:00 - 09:30	**Registration**			
	Amphitheater		**Room B3-01**	
09:30 - 09:40		**Opening**		**--**
Chair: Bob Kooi				
09:40 - 10:30	**Andrea Pugliese**	**An immuno-epidemiological model coupling within-host dynamics and between-hosts transmission**		**--**
10:30 - 11:00	**Paula Rodrigues**	**Impact of tuberculosis treatment length and adherence under different transmission intensities**		
11:00 - 11:30	**Coffee Break**			
	Chair: Maira Aguiar			**--**
11:30 - 12:20	**Mario Recker**	**Antigenic diversity in Plamodium falciparum: cause and consequences**		**--**
12:20 - 13:10	**Francisco Santos**	**Climate Policy: Cooperation Dynamics in an Uncertain World**		**--**
13:10 - 14:30	**Lunch**			
	Chair: Luís Mateus		**Chair: Nico Stollenwerk**	
14:30 - 15:20	**Andrea Parisi**	**Human mobility and its influence on the dynamics of infectious diseases**	**Carlos Lourenço**	**Function follows structure in the brain: a dynamical perspective**
15:20 - 16:10	**Carlos Braumann**	**Allee effects models in randomly varying environments**	**José Martins**	**Vaccination strategies in the SIRI model**
16:10 - 16:40	**Teresa Faria**	**Extinction and stability for delayed Lotka-Volterra systems with feedback controls**	**Torsten Lindstrom**	**Logistic approximations and their consequences for bifurcations patterns and long-run dynamical behavior**
16:40 - 17:10	**Coffee Break**			
Chair: Andrea Pugliese				
17:10 - 18:00	**Ezio Venturino**	**A mathematical model for goat farms affected by Caprine Arthritis Encephalitis**		**--**
18:00 - 19:30	**Drinks and Poster Session**			

FEBRUARY 11TH 2014

	Amphitheater		Room B3-01	
	Chair: Mario Recker			--
09:00 – 09:50	Anavaj Sakuntabhai	Dengue facts that modelers should know (but may not know)		--
09:50 – 10:20	Ana Clara Silva	Dengue outbreak in Madeira: entomological and epidemiological surveillance and the challenge of control of a vector borne-disease		--
10:20 – 10:50	Paulo Pimenta	Predicting Dengue Epidemics with Entomological and Virological Surveillance by xenomonitoring		--
10:50 – 11:20	Coffee Break			
	Chair: Maira Aguiar			--
11:20 – 12:10	Bernard Cazelles	Statistical and mathematical modeling of the nonstationary spatio-temporal dynamics of dengue in Thailand		--
12:10 – 13:00	Laurent Coudeville	Potential impact of dengue vaccination: insights from the first efficacy trial		--
13:00 - 14:30	Lunch			
	Chair: Ezio Venturino			--
14:30 – 15:20	Nico Stollenwerk	Chaos and noise in population biology: the case study of dengue fever epidemiology, modelling and data analysis		--
15:20 – 16:10	Konstantin Blyuss	Symmetric dynamics in models of multi-strain infections		--
16:10 – 16:40	Coffee Break			
	Chair: Bob Kooi			--
16:40 – 17:10	Delfim F. M. Torres	Dengue in Madeira Island		--
17:10 – 17:40	Hyun Mo Yang	Temperature and rain in dengue transmission		--
17:40 – 18:10	Filipe Rocha	Mosquitos do not matter, dynamically!		--
18:10 – 18:40	Maira Aguiar	Are we modelling the correct dataset? Minimizing false predictions for dengue fever in Thailand		--
20:00	Workshop Dinner			

FEBRUARY 12TH 2014

	Amphitheater		Room B3-01	
	Chair: Bob Kooi			--
09:00 – 09:50	Nick Britton	Set a thief to catch a thief: can we make use of parasites to control vector-borne diseases?		--
09:50 – 10:40	Gauthier Sallet	On Aedes, Wolbachia and Dengue		--
10:40 – 11:20	Coffee Break			
	Chair: Nico Stollenwerk			--
11:20 – 12:10	Bob Kooi	Predator interference in predator-prey system with disease in prey population		--
12:10 – 13:00	Alvaro Corral	Power Laws, Zipf's Law, and Scaling Laws in Human Language and Music		--
13:00 - 14:30	Lunch			
	Chair: Bernard Cazelles		Chair: Ezio Venturino	
14:30 – 15:00	Luis Mier-Y-Teran-Romero	Persistence, fade-outs and re-introduction of dengue viruses in the presence of serotype heterogeneities and mass vaccination	Urszula Skwara	Modelling epidemiological spreading via superdiffusion
15:00 – 15:30	Isabel Rodriguez Barraquer	Potential opportunities and perils of imperfect dengue vaccines	Luís Mateus	Bayesian Model Comparison and Semiclassical Approximations in Population Biology
15:30 – 16:00	Max Souza	Multiscale tales in epidemiology	Davide Masoero	Laplace's Method and Watson's Lemma for Sums, and the Semiclassical Dynamics of Population Biology
16:00 – 16:30	Abderrahman Iggidr	On the estimation problem for a malaria intra host model	Subhendu Chakraborty	Seasonal successional of plankton induced by toxin producing phytoplankton
16:30 – 17:00	Coffee Break			
Chair: Max Souza				
17:00 – 17:50	Jose Francisco Rodrigues	Increasing Powers and Free Boundary Problems arising in Population Biology		--
17:50 – 18:20	José F. Fontanari	Hamilton's rule in Kimura's diffusion model of intergroup selection		--
18:20 – 18:50	Fabio Chalub	The Forward Kimura Equation		--
18:50 – 19:00	Closing			