



# Programme

International Conference

Models in Population Dynamics and Ecology

26-29 August 2013

Institute of Environmental Systems Research

School of Mathematics & Computer Science

Osnabrück University, Germany

**MPDE'13**

Models in Population Dynamics and Ecology  
26-29 August 2013 • Osnabrück (Germany)

**Sunday, August 25**

<b>TIME</b>	<b>ROOM</b>
16:00-18:00	<b>Registration</b> in the lobby of the School of Physics, Bldg. 32, Westerberg Campus

**Monday, August 26**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
08:00-08:45	<b>Registration</b> in the lobby of the School of Physics, Bldg. 32, Westerberg Campus			
08:45-09:00	Opening <b>May-Britt Kallenrode</b> , Vice President <b>Horst Malchow</b> , Co-organizer			
09:00-10:30	Plenary Talks Chair: Sergei V. Petrovskii			
09:00-09:45	<b>Emilio Hernández-García</b> (ESP) Mobility and flow effects across biological scales			
09:45-10:30	<b>Ulrike Feudel</b> (GER) Harmful algal blooms: combining excitability and competition			
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:00-12:20		<b>Minisymposium K. Knüppe</b> (GER) Social-ecological system research for sustainable resources management	Contributed Talks <b>EPI 01</b> Chair: Frank M. Hilker (GBR)	<b>Minisymposium A. Morozov</b> (GBR) Modelling plankton dynamics: recent progress and future challenges
11:00-11:20		<b>Agostino Merico</b> (GER) A trait-based modelling perspective for social-ecological systems	<b>Jean-Baptiste Burie</b> (FRA) What should be the animal distribution in a hen house to minimize the risk of propagation of Salmonella?	<b>Jean-Christophe Poggiale</b> (FRA) Modeling phytoplankton-zooplankton interaction: from laboratory experiments to marine fields

**Monday, August 26**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
11:20-11:40		<b>Gunnar Brandt</b> (GER) Sustainable harvest in a simple social-ecological system - an evolutionary dynamics approach	<b>Gustavo Cruz-Pacheco</b> (MEX) Seasonal and climatic effects on the West Nile virus infection	<b>Alexei Ryabov</b> (GER) Location of the production layer affects the rules of phytoplankton resource competition
11:40-12:00		<b>Georg Holtz</b> (GER) Actor rationality as source for uncertainty in models of socio-ecological systems: a comparison of two agent-based models of agricultural land-use change	<b>Joyce de Figueiró Santos</b> (BRA) The role of seasonality in the stability of bee colonies infested by the Varroa mite	<b>Nicola Lewis</b> (GBR) Multitrophic interactions in the sea: assessing the effect of infochemical-mediated foraging in a 1-d spatial model
12:00-12:20		<b>Kathrin Knüppe</b> (GER) The management of natural resources in complex social-ecological systems: the role of ecosystem services towards integrative and adaptive management	<b>Aziz Ouhinou</b> (MAR) Epidemiological models with nonlinear endogenous self-protection measure	<b>Andrew Morozov</b> (GBR) Feeding on multiple sources: Towards a universal parameterization of the functional response of a generalist predator allowing for switching
12:20-14:00	Lunch Break	Lunch Break	Lunch Break	Lunch Break
	Plenary Talk Chair: Bob W. Kooi (NED)			
14:00-14:50	<b>Mats Gyllenberg</b> (FIN) Functional responses and how they evolve by natural selection			
14:50-16:10		Contributed Talks <b>MAT 01</b> Chair: Danielle Hilhorst (FRA)	Contributed Talks <b>NOI</b> Chair: Davide Valenti (ITA)	Contributed Talks <b>MAR</b> Chair: Alexei Ryabov (GER)
14:50-15:10		<b>Stefan Geritz</b> (FIN) Group defence and the predator's functional response	<b>Christoph Schmitt</b> (GER) Investigating the robustness of cyclic dominance of sockeye salmon	<b>Chiara Accolla</b> (FRA) Modelisation of fish schooling: analysis of functional response in presence of density-dependent processes
15:10-15:30		<b>Sten Madec</b> (FRA) Competition for a single resource in an heterogeneous environment with fast migration	<b>Antonio Gómez-Corral</b> (ESP) Stochastic models of host-parasite interaction in a seasonal environment	<b>Flora Cordoleani</b> (USA) Impact of the combined effect of environmental variability and fishing on Pacific salmon population dynamics and persistence

**Monday, August 26**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
15:30-15:50		<b>Fabio A.C.C. Chalub</b> (POR) The forward generalized Kimura equation	<b>Tobias Galla</b> (GBR) Demographic noise and resilience in a semi-arid ecosystem model	<b>Yoan Eynaud</b> (USA) How does herbivore behavior influence coral reef ecosystem resilience: a modeling perspective
15:50-16:10		<b>Natalia Petrovskaya</b> (GBR) Evaluation of pest insect abundance in the presence of noise	<b>Yen Ting Lin</b> (USA) Demographic stochasticity and the evolution of dispersal: On regime shifts driven by demographic fluctuations and evolutionarily stable dispersal rate	<b>Adel Ferchichi</b> (TUN) Viability analysis of fisheries management on hermaphrodite population
16:10-16:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break
16:30-17:50		Contributed Talks <b>MAT 02</b> Chair: Henri Laurie (RSA)	<b>Minisymposium F.M. Hilker</b> (GBR) Controlling chaotic population dynamics	<b>Minisymposium J.A. Freund</b> (GER) Noise effects in planktonic systems
16:30-16:50		<b>Anthony Malkassian</b> (FRA) <i>An in situ</i> flow-cytometry approach to analyze high-frequency variability of phytoplankton communities	<b>Bob W. Kooi</b> (NED) Overview of different routes to chaos in ecosystems models	<b>Jan A. Freund</b> (GER) Effects of environmental noise on the occurrence of red tides
16:50-17:10		<b>William Morris</b> (AUS) On the accuracy of models with informative priors	<b>Daniel Franco</b> (ESP) Reduction of population fluctuations by using adaptive limiter control	<b>Davide Valenti</b> (ITA) A stochastic reaction-diffusion-taxis model for picophytoplankton dynamics: analysis and comparison with experimental data
17:10-17:30		<b>David Nerini</b> (FRA) A functional data analysis approach for discrimination and dynamical evolution of phytoplankton communities	<b>Alfonso Ruiz-Herrera</b> (ESP) Analysis of dispersal effects in simple metapopulation models	<b>Michael Sieber</b> (GBR) Noise-induced suppression of periodic travelling waves
17:30-17:50		<b>Jarosław Śmieja</b> (POL) Sensitivity methods in population dynamics	<b>Lutz Becks</b> (GER) Weak synchronization in chaotic communities	<b>Lutz Schimansky-Geier</b> (GER) Interaction of noise supported Ising-Bloch fronts with Dirichlet boundaries
17:50-18:15	Break	Break	Break	Break

**Monday, August 26**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
	Honorary Lecture Chair: Horst Malchow (GER)			
18:15-19:15	<b>Nanako Shigesada</b> (JPN) Invasive spread in patchy environments: effects of diffusion, directed movement and population pressure			
20:00				

**Tuesday, August 27**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
09:00-10:30	Plenary Talks Chair: Jean-Christophe Poggiale (FRA)			
09:00-09:45	<b>Bas Kooijman</b> (NED) Dynamic Energy Budget theory - past and future			
09:45-10:30	<b>Roger Nisbet</b> (USA) Generic population dynamic effects of toxicants predicted from Dynamic Energy Budget theory			
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:00-12:20		<b>Minisymposium B. Blasius</b> (GER) Meta food-webs: a new paradigm in spatial ecology	Contributed Talks <b>EVO 01</b> Chair: Michael Sieber (GBR)	Contributed Talks <b>WEB</b> Chair: Diomar Cristina Mistro (BRA)
11:00-11:20		<b>Eric Tromeur</b> (GBR) Stability of metacommunities: a generalized modeling approach		<b>Derik Castillo-Guajardo</b> (MEX) Harvesting interacting populations: How much can we exploit them?
11:20-11:40		<b>Daniel Ritterskamp</b> (GER) Oscillatory states in an evolutionary food web model	<b>Lutz Becks</b> (GER) Eco-evolutionary dynamics and the evolution of sex	<b>Alcides Castro e Silva</b> (BRA) Computer simulation for <i>Sapajus robustus</i> in a fragmented environment
11:40-12:00		<b>Eva-Marie Weiel</b> (GER) How does migration between patches influence evolutionary food webs?	<b>Paulo Campos</b> (BRA) Adaptive evolution in a spatially structured population model	<b>Rory Mullan</b> (GBR) Tracking species diversity in a multiple species predator-prey model with different ways of scaling predators focus across the prey
12:00-12:20		<b>Bernd Blasius</b> (GER) A niche-space approach for modeling meta food-webs	<b>Maria-Josefina Hernandez</b> (VEN) A structured parasitic-mutualistic interaction model shows a possible route to the evolution of mutualism	<b>Sebastian J. Plitzko</b> (GER) The effect of migration between patches on the stability of food webs
12:20-14:00	Lunch Break	Lunch Break	Lunch Break	Lunch Break

**Tuesday, August 27**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
	Plenary Talk Chair: Nicholas F. Britton (GBR)			
14:00-14:50	<b>Alan Hastings (USA)</b> Sudden transitions in ecological systems: models and potential warning signs			
14:50-16:10		Contributed Talks <b>NET 01</b> Chair: Bernd Blasius (GER)	<b>Minisymposium C. Stinner I (GER)</b> Mathematical modeling of cancer cell migration: multiscale approaches I	Contributed Talks <b>PAT 01</b> Chair: Ulrike Feudel (GER)
14:50-15:10		<b>Malbor Asllani (ITA)</b> The linear noise approximation for reaction-diffusion systems on networks: the stochastic waves	<b>Danielle Hilhorst (FRA)</b> Formal asymptotic limit of diffuse-interface tumor-growth models	<b>Malay Banerjee (IND)</b> Pattern formation in ratio-dependent prey-predator model: effect of predator's density dependent death
15:10-15:30		<b>Chris Hadjichrysanthou (GBR)</b> Epidemic control analysis: an effective targeted intervention strategy against infectious disease spread in networks	<b>Markus Knappitsch (GER)</b> Brain invaders. Multiscale modelling of glioma invasion	<b>Michael Bengfort (GER)</b> Plankton patchiness and plankton blooms generated by 2D turbulent flows
15:30-15:50		<b>Alex James (NZL)</b> Disentangling nestedness from models of complex ecosystems	<b>Thomas Lorenz (GER)</b> Multiscale models for cancer cell migration in less regular function spaces	<b>Shigefumi Hata (GER)</b> Dispersal-induced extinction in ecological metapopulations
15:50-16:10			<b>Christian Stinner (GER)</b> On a multiscale model involving cell contractivity and its effects on tumor invasion	<b>Shai Kinast (ISR)</b> Biogenic crust dynamics on sand dunes
16:10-16:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break
16:30-17:50		Contributed Talks <b>NET 02 / MAT 04</b> Chair: Alex James (NZL)	<b>Minisymposium C. Stinner II (GER)</b> Mathematical modeling of cancer cell migration: multiscale approaches II	Contributed Talks <b>PAT 02</b> Chair: Malay Banerjee (IND)
16:30-16:50		<b>Kieran J. Sharkey (GBR)</b> Exact deterministic epidemic models on networks	<b>Rachelle Binny (NZL)</b> Multi-scale modelling of cell invasion	<b>Diomar Cristina Mistro (BRA)</b> Multiple spatial scales in a plant herbivore model

**Tuesday, August 27**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
16:50-17:10		<b>Robert Wilkinson</b> (GBR) Markovian susceptible-infectious-susceptible (SIS) dynamics on finite networks: Endemic prevalence and invasion probability	<b>Gülnehal Meral</b> (TUR) Mathematical analysis and numerical simulations for a system modeling acid-mediated tumor cell invasion	<b>Astrid Potiek</b> (GER) Effects of habitat on population regulation in common buzzards <i>Buteo buteo</i>
17:10-17:30		<b>Max O. Souza</b> (BRA) Multiscaling modelling in evolutionary dynamics	<b>Vitalii Akimenko</b> (UKR) Evolutionary age-structured cell dynamic models	<b>Mickaël Teixeira Alves</b> (GBR) Simple rules for identifying positive indirect effects in classes of one-predator--two-prey models
17:30-17:50		<b>Nora Stahnke</b> (GER) Intraspecific competition models considering two resources	<b>Christian Winkel</b> (GER) Modelling the dynamics of TNF-receptor clustering: a population balance approach	<b>Yuval R. Zelnik</b> (ISR) Regime shifts in spatially extended ecosystems
17:50-18:15	Break	Break	Break	Break
	Honorary Lecture Chair: Michel Langlais (FRA)			
18:15-19:15	<b>Masayasu Mimura</b> (JPN) Model-aided understanding of competitive exclusion and coexistence			
20:00	Conference Dinner at brewpub <b>Rampendahl</b> , Hasestraße 35, 49074 Osnabrück			



**Wednesday, August 28**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
	Plenary Talks Chair: Roger Nisbet (USA)			
09:00-09:45	<b>Jean-Christophe Poggiale</b> (FRA) Aggregation of variables in ecological systems with multiple scales: methods and applications			
09:45-10:30	<b>Volker Grimm</b> (GER) Individual-based modelling: emerging theories			
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:00-12:20		Contributed Talks <b>MOV 01</b> Chair: Ulrike Schlägel (CAN)	Contributed Talks <b>EPI 02</b> Chair: Aziz Ouhinou (MAR)	<b>Minisymposium A. Focks</b> (NED) Application of ecological models for decision making and risk assessment
11:00-11:20		<b>Rod Blackshaw</b> (GBR) Mistakes happen: chemotaxis may not always be the answer	<b>Ramona Marguta</b> (POR) Spread of infectious diseases in large geographical area	<b>Coralie Fritsch</b> (FRA) Individual-based model for the chemostat
11:20-11:40		<b>Alexander Bläbke</b> (GER) Optimal foraging strategies in intermittent search patterns using a correlated composite random walk	<b>Andrea Parisi</b> (POR) Heterogeneity in antibody range and the antigenic drift of influenza A viruses	<b>Andreas Focks</b> (NED) Effect of competition on the sensitivities of aquatic macroinvertebrate populations towards chemicals: exploring the parameter space by Monte Carlo simulations
11:40-12:00		<b>Roman Garnett</b> (GER) Animal foraging via optimal search	<b>Surabhi Pandey</b> (IND) Modeling and analysis of biological control of malaria	<b>Jörg Klasmeier</b> (GER) Do bacteriostatic antibiotics in soil pose an ecological risk by disturbing microbial nitrogen turnover processes?
12:00-12:20		<b>Richard Mann</b> (SWE) Collective motion through collective decision-making	<b>Valeriy Perminov</b> (RUS) Agent-based models for infectious diseases spreading and ill-posed problems	<b>Elke I. Zimmer</b> (BEL) How to identify the metabolic mechanism of action (mMoA) from toxicity data? Comparing species and effects in a DEB framework

Wednesday, August 28				
TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
12:20-14:00	Lunch Break	Lunch Break	Lunch Break	Lunch Break
	Plenary Talk Chair: Luca Giuggioli (ITA)			
14:00-14:50	<b>Ran Nathan (ISR)</b> A transdisciplinary movement ecology approach for studying movement of organisms in changing environments			
14:50-16:10		<b>Minisymposium L. Giuggioli (ITA)</b> New developments in movement ecology: from individuals to collectives	Contributed Talks <b>EVO 02</b> Chair: Lutz Becks (GER)	Contributed Talks <b>MAT 03</b> Chair: Ivo Siekmann (AUS)
14:50-15:10		<b>Carly Benerfer (GBR)</b> Investigation of within- and between-individual variation in ground beetle walking movements	<b>Diana García López (GBR)</b> Why (some) policing is good: the evolution of collective group size regulation in plasmids	<b>Matthew Adamson (GBR)</b> Detecting structural sensitivity in biological models: Developing a new framework
15:10-15:30		<b>Luca Giuggioli (ITA)</b> Quantifying animal interactions: the case of co-flying echolocating bats	<b>Mathias Gauduchon (FRA)</b> Evolution of resistance to thermal stress and phenotypic plasticity	<b>Andrew Morozov (GBR)</b> Bifurcation analysis of models with uncertain function specification: how should we proceed?
15:30-15:50		<b>Edward Codling (GBR)</b> Collective navigation and decision-making in animals and humans	<b>Chaitanya S. Gokhale (GER)</b> Lotka and Volterra kill the Red Queen	<b>Moitri Sen (IND)</b> Global bifurcation analysis of a ratio-dependent prey-predator model with Allee effect in prey growth
15:50-16:10			<b>Weini Huang (GER)</b> Emergence of stable polymorphism driven by random mutations	<b>Rachid Mchich (MAR)</b> Bioeconomical fishing models with two time scales: application to Moroccan fisheries
16:10-16:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break

**Wednesday, August 28**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
16:30-17:50		Contributed Talks <b>MOV 02</b> Chair: Rod Blackshaw (GBR)	Contributed Talks <b>EVO 03</b> Chair: Mathias Gauduchon (FRA)	
16:30-16:50		<b>Daniel Campos Moreno</b> (ESP) The role of detection mechanisms in animal foraging	<b>Michael Sieber</b> (GBR) Dispersal networks and infection mechanism shape diversity in a coevolutionary bacteria-phage system	
16:50-17:10		<b>Rouzalia Kasimova</b> (OMA) Dynamics of insects as a factor in shape-size optimization of anthill	<b>Divane Marcon</b> (BRA) Müllerian mimicry in motion: numerical simulations of a simple model	
17:10-17:30		<b>Daniel Strömbom</b> (SWE) Approaching the shepherding problem: heuristics for herding autonomous, locally interacting agents	<b>Yanthe E. Pearson</b> (UAE) Predicting the maximum per capita rate of populations growth for shore-birds - a phylogenetic comparative analysis	
17:30-19:15	<p><b>Poster Session</b></p> <p>Room 106</p>			
20:00	<p><b>Night-watchman tours through old Osnabrück</b></p> <p>Meeting in front of <b>Town Hall</b>, Markt, 49074 Osnabrück</p> <p>3 groups English language, 2 groups German language</p>			

**Thursday, August 29**

TIME	ROOM 102 PLENARY HALL	ROOM 107	ROOM 109	ROOM 110
	Plenary Talks Chair: Mats Gyllenberg (FIN)			
09:00-09:45	<b>Michel Langlais</b> (FRA) Spatial spread of a multi-stage parasite through a genuinely fragmented and heterogeneous predator-prey system			
09:45-10:30	<b>Sergei V. Petrovskii</b> (GBR) Multiscale spatiotemporal models of insect pest monitoring			
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:00-12:20		<b>Minisymposium N. Petrovskaya</b> (GBR) Development of the multi-scale mathematical approach for the pest insect monitoring in agricultural ecosystems	Contributed Talks <b>EPI 03</b> Chair: Jean-Baptiste Burie (FRA)	Contributed Talks <b>MAT 05</b> Chair: David Nerini (FRA)
11:00-11:20		<b>Rod Blackshaw</b> (GBR) Good quality information is scarce in pest monitoring systems	<b>Marat Rafikov</b> (BRA) Dynamics of the sugarcane borer - egg parasitoid - larvae parasitoid agro-ecosystem	<b>Henri Laurie</b> (RSA) Some examples of spatial dynamics with multifractal fixed points
11:20-11:40		<b>Nina Embleton</b> (GBR) Methods of numerical integration for accurate evaluation of pest insect abundance	<b>Sanja Selakovic</b> (NED) Dynamics of infectious agents in real food webs	<b>Ryo Oizumi</b> (JPN) Path-integral formulation of structured population models: Theory and an application
11:40-12:00		<b>Danish Ali Ahmed</b> (GBR) Time dependent diffusion as a flux approximation to the Lévy flight process	<b>Nicholas Stringer</b> (NZL) Modelling the growth of <i>Tradescantia umentis</i> and the effects of biological control methods	<b>Robert Strehl</b> (GER) Accurate, robust and flexible finite element solvers for chemotaxis-driven partial differential equations
12:00-12:20		<b>Daniel Bearup</b> (GBR) Patterns of individual based movement in bounded space	<b>Ezio Venturino</b> (ITA) Ecoepidemic food webs	<b>Ivo Siekmann</b> (AUS) "Measuring the world" - maps of parameter space in population dynamics

**Thursday, August 29**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
12:20-14:00	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14:00-15:20		Contributed Talks <b>MOV 03</b> Chair: Carly Benefer (GBR)	<b>Minisymposium B.W. Kooi</b> (NED) Bifurcation theory and applications in biological systems	Contributed Talks <b>TER</b> Chair: Manuel Gámez (ESP)
14:00-14:20		<b>Ricardo Martinez-Garcia</b> (ESP) Optimal search in an interacting population. The case of the Mongolian gazelle	<b>Frank M. Hilker</b> (GBR) Complex dynamics in an eco-epidemiological model	<b>Friedrich Bohn</b> (GER) Modelling the influence of European forests structures on the diversity production relationship
14:20-14:40		<b>Jonathan Potts</b> (CAN) Deriving space use patterns from animal interaction mechanisms using step selection functions	<b>George van Voorn</b> (NED) Smoking eradication via tipping points in an ecoepidemiological model	<b>Rico Fischer</b> (GER) African rainforests at risk: a simulation study
14:40-15:00		<b>Andy Reynolds</b> (GBR) An ubiquitous null Lévy flight template for animal motion under limited external cues	<b>Subhendu Chakraborty</b> (GER) How does avoidance of toxic species by zooplankton lead to a harmful algal bloom?	<b>Franziska Taubert</b> (GER) Do extensively managed grasslands benefit from a higher functional diversity?
15:00-15:20		<b>Ulrike Schlägel</b> (CAN) Analyzing animal movement models for robustness against varying sampling frequency	<b>Lia Hemerik</b> (NED) Bifurcations and alternative stable states for high school students	<b>Jaqueline Maria da Silva</b> (BRA) A model for dynamic vegetation in Amazon floodplain areas
15:20-15:30	Break	Break	Break	Break
	Plenary Talk Chair: Ezio Venturino (ITA)			
15:30-16:15	<b>Nicholas F. Britton</b> (GBR) Set a thief to catch a thief: can we make use of parasites to control vector-borne diseases?			
16:15-16:30	<b>Closing</b>			

**Thursday, August 29**

<b>TIME</b>	<b>ROOM 102 PLENARY HALL</b>	<b>ROOM 107</b>	<b>ROOM 109</b>	<b>ROOM 110</b>
17:30-19:00	Guided tours through <b>Felix Nussbaum Haus</b> , Lotter Straße 2, 49078 Osnabrück 3 groups English language, 1 group German language			

## Poster Session

Wednesday ◦ 28 August ◦ Room 106 ◦ 17:50 - 19:15h

No	Author(s) ◦ Title
01	<b>Everaldo Arashiro</b> , A.C.A. Carneiro, M.R.F. Luzia, S.P. Ribeiro, F.M.R. Hirata & T. Tomé (BRA) Stochastic simulation of alternating dominance among ant genera
02	<b>George Constable</b> (GBR) Fast variables in stochastic population dynamics: a method of model reduction
03	<b>Evgen Dykyi</b> & Liubava Radiychuk (UKR) Black sea: a convenient and promising model system for testing the models of plankton dynamics
04	<b>Fabian Fertig</b> (GER) The influence of stage structure on population dynamics of sockeye salmon
05	<b>Lourdes Esteva Peralta</b> (MEX) A model to evaluate vaccination strategies in dengue
06	<b>Juan R. Gallego</b> , Manuel Gámez, Tomás Cabello, Zoltán Sebestyén, Zoltán Varga & József Garay (ESP, HUN) Entomo-ecological simulation model applied to timing of biological pest control by parasitoid
07	<b>József Garay</b> , Manuel Gámez, Zoltán Varga & Tomás Cabello (ESP, HUN) Liebig's law determining numerical response of an omnivore agent in biological pest control
08	<b>Manuel Gámez</b> , József Garay, Zoltán Varga, Ramón Carreño & Tomás Cabello (ESP, HUN) Applications of multiple sigmoid functions in plant protection
09	Ingo Geestmann & <b>Broder Breckling</b> (GER) Gene flow model to estimate cross-pollination in Maize ( <i>Zea mays</i> ) fields
10	<b>Wesley A.C. Godoy</b> (BRA) Trophic mediations in insect populations

## Poster Session

Wednesday ◦ 28 August ◦ Room 106 ◦ 17:50 - 19:15h

No	Author(s) ◦ Title
11	<b>Ravi Pratap Gupta</b> (IND) Dynamical complexity of a simple prey-predator model in presence of nonlinear harvesting
12	<b>Egberanmwun Iyare &amp; Francis Osagiede</b> (NGA) A model for vector- and transfusion-transmitted malaria disease
13	<b>Alex James</b> , Mike Plank, Shona Lamoureaux, Dave Kelly & Graeme Bourdot (NZL) Weeding out Wandering Willy
14	<b>Masha Jankovic &amp; Sergei V. Petrovskii</b> (GBR) Gypsy moth invasion in North America: a simulation study of the spatial pattern and the rate of spread
15	<b>Navjot Kaur</b> , S.S. Bhatia & Mini Ghosh (IND) Modelling and analysis of the transmission dynamics of infectious diseases: effect of awareness and treatment
16	<b>Helen Kettle</b> , Vivian Blok, Agata Kaczmarek & Glenn Marion (GBR) Effect of climate change on the population dynamics of potato cyst nematodes
17	<b>Nadège Octavie Lenkeu Lenkeu</b> (SEN) Exploring the Easter Island ecology: a mathematical modelling investigation
18	<b>Salvador Lou Vega</b> (BRA) Theoretical dispersal kernels for fleshy fruited plant species dispersed by birds
19	<b>Fernando Silveira Marques</b> , Rafael I. Cipullo, Raul Ossada, José H.H. Grisi Filho & Marcos Amaku (BRA) Multiscale model of disease spread in cattle trade networks
20	<b>Ricardo Martinez-Garcia</b> (ESP) Spatial patterns in savannas: the local facilitation limit and the role of demographic stochasticity



## Poster Session

Wednesday ◦ 28 August ◦ Room 106 ◦ 17:50 - 19:15h

No	Author(s) ◦ Title
21	Marcos Marv & <b>Ezio Venturino</b> (ESP, ITA) An approach to opportunistic diseases models
22	<b>Marcelo Alves Moreira</b> & Jaqueline Maria da Silva (BRA) Influence of variation of the water level on the interaction between species of fish: Santa Clara dam
23	<b>Sizah Mwalusepo</b> (TAN) Modelling the impact of climate changes to the maize stem borer communities and their main natural enemies along altitudinal gradients in East Africa
24	<b>Peter Mpasho Mwamtobe</b> (MWI) Impact of multi-intervention campaigns on the malaria epidemic in Malawi
25	<b>Anai da Paixo Sev</b> , Oswaldo Santos, Estela Gallucci Lopes, Rodrigo Martins Soares, Fredy Galvis Ovallos, Eunice Bianchi Gallati & Fernando Ferreira (BRA) Human and domestic dog visceral leishmaniasis dynamics: prevention through dog vaccination and use of deltamethrin-impregnated collars
26	Oswaldo Santos, <b>Fernando Silveira Marques</b> , Lilian Akemine, Marcos Amaku & Fernando Ferreira (BRA) Identification of priorities for dog population management
27	<b>Samares Pal</b> & Joydeb Bhattacharyya (IND) Dynamics of asymmetric intraguild predation with time lags in reproduction and maturation
28	<b>Sansao Pedro</b> (MOZ) HIV/AIDS dynamics: the impact of economic classes with transmission from poor clinical settings
29	<b>Michaela Plein</b> (AUS) Optimal translocation strategies for interacting species

## Poster Session

Wednesday ◦ 28 August ◦ Room 106 ◦ 17:50 - 19:15h

No	Author(s) ◦ Title
30	<b>Luiz Alberto Díaz Rodrigues</b> & Diomar Cristina Mistro (BRA) A coupled map lattice model for pursuit-evasion in a predator-prey system
31	<b>Tommaso Scotti</b> (JPN) Does toxicity of a prey promote coexistence?
32	Solange F. Rutz & <b>Rinaldo Vieira</b> (BRA) Environmental analysis of impact of transgenic crops
33	<b>Ting-Hui Yang</b> (TPE) Global dynamics of a three species food web model with omnivory