ICMA-VIII 2022 Meeting Timetable

Student Union & Oliver Hall, University of Louisiana at Lafayette

Friday, October 28, 2022

	Student Union: Helma Constantine Forum AB (Room 209)		
08:30-12:00	**Registration, Student Union**		
09:00-09:15	**Opening Remarks: Dr. Jaimie Hebert, Provost and Vice President for Academic Affairs**		
09:15-10:15	**Plenary Talk: Mark Lewis** ***Target reproduction numbers in ecology and epidemiology*** Chair: Amy Veprauskas		
	Student Union (Rm. 207)	**Room 209**	**Room 210**
	Session 1 Chair: Cameron Browne	**Session 2** Chair: Amy Veprauskas	**Session 3** Chair: Bruce A. Wade
10:30-11:00	Chadi M. Saad-Roy *Modeling SARS-CoV-2 immuno-epidemiological dynamics*	Saber Elaydi *Mixed Monotone Maps: Application to evolutionary Models*	Ashrafur Rahman *Mathematical modeling of L. monocytogenes under simulated human gastric conditions in the presence of milk products*
11:00-11:30	Yuganthi Liyanage *A Novel Within-Host Model of HIV and Nutrition*	Jing Li *Honey bee (Apis mellifera) hive placement is more influential than orchard layout on the fruit set of a dioecious crop*	Emmanuel Asante-Asamani *Actin-Myosin Dynamics During Bleb Stablization*
11:30-12:00	Daniela Andrea Florez Pineda *Modeling sustained transmission of Wolbachia among Anopheles mosquitoes: Implications for Malaria control in Haiti*	Cole Butler *Rethinking mosquito control: Gene drives and the consequences of over-suppression*	Naghmeh Akhavan *Affect of extracellular geometry on cluster cell migration in fruit fly egg chamber*
12:00-1:45	Lunch (on your own)		
	Oliver Hall (Rm. 112)		
	Oliver Hall (Rm. 112)	**Room 101**	**Room 117**
	Session 4 Chair: Paul Salceanu	**Session 5** Chair: Azmy S. Ackleh	**Session 6** Chair: Ross Chiquet
1:45-2:15	Cameron Browne *Prey-predator eco-evolutionary dynamics of HIV immune escape*	Jim Michael Cushing *A Darwinian SI Model*	Mohammad Mihrab Uddin Chowdhury *Coupling discrete and continuous time scales to investigate the impact of an emerging fungal pathogen in amphibian populations*
2:15-2:45	Shasha Gao *Human papillomvirus vaccination strategy: modeling and implications*	Zhijun Wu *Why multilingual, and how to keep it – An evolutionary dynamics perspective*	Tung D. Nguyen *Population Persistence in Stream Networks: Growth Rate and Biomass*
2:45:3:15	Sarafa Adewale Iyaniwura *Understanding the efficacy of capsid protein allosteric modulators using a multiscale model of hepatitis B virus*	Jordy Cevallos Chavez *Hierarchy Establishment from Nonlinear Social Interactions and Metabolic Costs: An Application to Harpegnathos saltator*	Yixiang Wu *Global dynamics of Lotka-Volterra competition patch models*
3:30-4:30	**Plenary Talk: Sheryl Chang** ***Modelling infectious disease dynamics and intervention methods: COVID-19 and beyond*** Chair: Elena Braverman		
	Session 7 Chair: Hayriye Gulbudak	**Session 8** Chair: Paul Salceanu	**Session 9** Chair: Jim M. Cushing
4:45-5:15	Ephraim Agyingi *Modeling immune response and disease severity in COVID-19*	Keng Deng *On a nonlinear nonlocal model for a population with separate dispersal and sedentary stages*	Amy Veprauskas *Pathogen dynamics in a tick-host system*
5:15-5:45	Yang Li *Assessing the epidemiological and economic impact of alternative vaccination strategies: a modeling study*	Jun Chen *How does seasonality and parasitism impact Honeybee population dynamics*	Azmy S. Ackleh *A Discrete-Time Spatially-Explicit Model for the Dynamics of Ticks*
5:45-6:15	Tin Phan *Modeling the viral resistance to monoclonal antibody treatment for SARS-CoV-2*	Eddy Kwessi *Hierarchical Model for Species Under an Allee Effect with Immigration and a Hollins-Type II Functional Response*	Tingting Tang *Comparing and Examining Different Methods of Determining Structural and Practical Identifiability of a Vector-Host Model*

Updated October 25, 2022

Saturday, October 29, 2022

	Oliver Hall (Rm. 112)	Room 101	Room 117
09:00-10:00	**Plenary Talk: Stanca Ciupe** ***Multi-scale dynamics of SARS-CoV-2 infection*** Chair: Azmy S. Ackleh		
	Oliver Hall (Rm. 112)	**Room 101**	**Room 117**
	Session 10 Chair: Hayriye Gulbudak	**Session 11** Chair: Amy Veprauskas	**Session 12** Chair: Xiang-Sheng Wang
10:15-10:45	Zhuolin Qu *Multistage spatial model for informing release of Wolbachia-infected mosquitoes as disease control*	Elena Braverman *Delayed harvesting models: sustainability challenges*	Necibe Tuncer *Structural and practical identifiability analysis of a multiscale immuno-epidemiological model*
10:45-11:15	Md Rafiul Islam *Evaluation of the United States COVID-19 Vaccine Allocation Strategy*	Ursula Trigos-Raczkowski *Coexistence due to life history variation revisited in models with explicit patch aging*	Maya Bocanegra *Mathematical Modeling of Waning and Boosting of COVID-19 Immunity through Infection and Vaccination to Predict Seroprevalence in*
11:15-11:45	Nazia Afrin *Bistability in models of Hepatitis B virus dynamics*	Jacob Duncan *Separation of Scales in an Integrodifference Equation Model of Metapopulations Predicts Climate Change Impacts on Equilibria*	Denis Patterson *Modeling immunity to malaria with an age-structured PDE framework*
11:45-1:30	Lunch (on your own)		
1:30-2:30	**Plenary Talk: Kelsey Marcinko** ***A Mathematical Analysis of Host–Parasitoid Dynamics*** Chair: Xiang-Sheng Wang		
2:30-3:00	**Coffee Break and Poster Session**		
	Session 13 Chair: Saber Elaydi	**Session 14** Chair: Azmy S. Ackleh	**Session 15** Chair: Xiang-Sheng Wang
3:00-3:30	Hayriye Gulbaduk *Two-Strain Multi-Scale Dengue Vaccination Model Structured by Dynamic Host Antibody Level*	Amanda Laubmeier *Intraguild predation in a two-species competition model with seasonal birth*	Adriana Maria De Mendoza Velasquez *Generalized model to predict the outcome of sequential thermoradiotherapy*
3:30-4:00	Seoyun Choe *Impact of residence time on the spread of infectious diseases in a heterogeneous environment*	Sankar Sikder *A Discrete-Time Predator-Prey Model with Selection and Mutation in the Prey*	Jacquelyn Shelton *Probabilistic machine learning for uncertainty representation and applications to neural encoding in biological sensory systems*
4:00-4:30	Xueying Wang *A reaction-advection-diffusion model of cholera epidemics with seasonality and human behavior change*	Srijana Ghimire *Supercritical Hopf Bifurcation of Cooperative Predation*	Thomas G. Stojsavljevic Jr *Adaptive deep brain stimulation in a biophysical network model of Parkinson's disease*
4:45-5:45	**Plenary Talk: Heiko Enderling** ***Quantitative Personalized Radiation Oncology*** Chair: Jim Cushing		
6:00-8:30	**Dinner at the Alumni Center**		

Sunday, October 30, 2022

	Oliver Hall (Rm. 112)		
09:00-10:00	**Plenary Talk: Carrie Manore** ***Continental-Scale Model for Climate-Driven Mosquito-borne Diseases*** Chair: Saber Elaydi		
	Oliver Hall (Rm. 112)	**Room 101**	**Room 117**
	Session 16 Chair: Cameron Browne	**Session 17** Chair: Saber Elaydi	**Session 18** Chair: Jim M. Cushing
10:15-10:45	Zhijun Wu *Social distancing is a social dilemma game played by every individual against his/her population*	Naghmeh Akhavan *Extinction of multiple populations and a team of Lyapunov functions*	Andjela Rodic *Using mathematical modeling and feature selection techniques to infer the predictors of the SARS-CoV-2 transmissibility*
10:45-11:15	Lale Asik *Nutrient-mediated pathogen infectivity and host immunity in primary producers*	Paul Salceanu *Dispersal-driven coexistence in a multiple-patch competition model for zebra and quagga mussels*	Yusuf Afolabi *Quantifying the efficiency of contact tracing in mitigating the spread of COVID-19*
11:15-11:45	Leah LeJeune *Effect of cross-immunity in a mult-strain cholera model*	Oluwatosin Babasola *Mathematical analysis of the delay differential equation model for the farm level cocoa yield*	Xinyue Zhao *Bifurcation Analysis of Critical Values for Wound Closure Outcomes in Wound Healing Experiments*