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Schedule for: 24w5209 - Dynamical Models Inspired by Biology

Beginning on Sunday, October 6 and ending Friday October 11, 2024

All times in Banff, Alberta time, MDT (UTC-6).

Sunday, October 6	
16:00 - 17:30	Check-in begins at 16:00 on Sunday and is open 24 hours (Front Desk - Professional Development Centre)
17:30 - 19:30	Dinner ↓ (Vistas Dining Room)
20:00 - 22:00	Informal gathering (TCPL Foyer)
Monday, October 7	
07:00 - 08:45	Breakfast ↓ (Vistas Dining Room)
08:45 - 09:00	Introduction and Welcome by BIRS Staff ↓ (TCPL 201)
09:00 - 09:30	Abba Gumel: Mathematics of malaria transmission dynamics: the renewed quest for eradication ↓ (TCPL 201)
09:35 - 10:05	Chiu-Yen Kao: Is Maximum Tolerated Dose (MTD) Chemotherapy Scheduling Optimal for Glioblastoma Multiforme? ↓ (TCPL 201)
10:10 - 10:35	Coffee Break (TCPL Foyer)
10:35 - 11:05	Avner Friedman: Free boundary problems in bio-medicine ↓ (TCPL 201)
11:10 - 11:40	Bei Hu: Periodic Solutions in Free Boundary Problems from Mathematical Biology ↓ (TCPL 201)
11:45 - 13:00	Lunch ↓ (Vistas Dining Room)
14:00 - 14:20	Group Photo ↓ (TCPL Foyer)
14:20 - 14:40	Bo Zhang: Movement alters ecological dynamics in heterogeneous environments ↓ (TCPL 201)
14:40 - 15:00	Olga Turanova: Effect of Repelling Chemotaxis on Propagation ↓ (TCPL 201)
15:00 - 15:30	Coffee Break (TCPL Foyer)
15:30 - 15:50	Xinyue Zhao: Bifurcation Analysis in a Free Boundary Model for Early Atherosclerotic Plaque Development ↓ (TCPL 201)
15:55 - 16:15	Michele Romanos: Dynamic regulation of motility in structured environments drives spatial organisation of bacterial crowds: insights from experimental data and mathematical modeling ↓ (TCPL 201)



16:20 - 16:40	Daozhou Gao: Effects of Host Movement on the Prevalence of Vector-borne Diseases ↓ (Online)
16:45 - 17:05	Nouridine Siewe: Osteoporosis induced by cellular senescence: A mathematical model ↓ (TCPL 201)
17:10 - 17:30	Chris Henderson: Control formulation for a road-field population dynamics model ↓ (TCPL 201)
17:35 - 17:55	Kyunghan Choi: Chemotactic Cell Aggregation Viewed as Instability and Phase Separation ↓ (TCPL 201)
18:00 - 20:00	Dinner ↓ (Vistas Dining Room)

Tuesday, October 8	
07:00 - 08:45	Breakfast ↓ (Vistas Dining Room)
09:00 - 09:30	Mark Lewis: Nonlocal multispecies advection-diffusion models ↓ (TCPL 201)
09:35 - 10:05	Yuan Lou: Dispersal induced growth and principal eigenvalue ↓ (Online)
10:10 - 10:35	Coffee Break (TCPL Foyer)
10:35 - 11:05	Alan Hastings: Spatial synchrony and spatio-temporal dynamics in ecology: questions and answers and more questions (Online)
11:10 - 11:40	Zhisheng Shuai: Group Inverses for Understanding Heterogeneity in Metapopulation Dynamics ↓ (TCPL 201)
11:45 - 13:30	Lunch ↓ (Vistas Dining Room)
13:30 - 14:00	Rebecca Tyson: Mutualism at the leading edge: Insights into eco-evolutionary dynamics of host-symbiont communities during range expansion ↓ (TCPL 201)
14:05 - 14:35	Vincent Calvez: Evolution of cooperation in space: a PDE perspective (TCPL 201)
14:40 - 15:00	Daniel Gomez: Towards a Rigorous Analysis of the Shadow Wave-Pinning Model ↓ (TCPL 201)
15:00 - 15:30	Coffee Break (TCPL Foyer)
15:30 - 15:50	Noelle Beckman: Advancing Knowledge Gaps in Seed Dispersal Ecology Using Interdisciplinary Approaches ↓ (TCPL 201)
15:55 - 16:15	Chang-Hong Wu: Some free boundary problems arising in species competition ↓ (TCPL 201)
16:20 - 16:40	Rachidi Salako: Spatial profiles of a reaction-diffusion epidemic model with nonlinear incidence mechanism ↓ (TCPL 201)
16:45 - 17:05	Daniel Cooney: Nonlocal PDE Models for Evolutionary Dynamics at Multiple Levels of Organization ↓ (TCPL 201)
17:10 - 17:30	Jerome Goddard II: Ecological release and patch geometry can cause nonlinear density-area relationships ↓ (TCPL 201)
17:35 - 17:55	Silas Poloni: Evolutionary dynamics at the leading edge of biological invasions ↓ (TCPL 201)
18:00 - 20:00	Dinner ↓ (Vistas Dining Room)

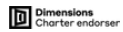
Wednesday, October 9	
07:00 - 08:45	Breakfast ↓ (Vistas Dining Room)
09:00 - 09:30	Caroline Farrior: Searching for an ultimate cause of species coexistence: Is it critical to be finite and discrete? ↓ (TCPL 201)



09:35 - 10:05	Sebastian Schreiber: Impacts of the Tempo and Mode of Environmental Fluctuations on Population Growth ↓ (TCPL 201)
10:10 - 10:35	Coffee Break (TCPL Foyer)
10:35 - 11:05	William Fagan: Learning and Memory in Animal Movement: Biological Foundations and Modeling Ideas ↓ (TCPL 201)
11:10 - 11:40	Yun Kang: Dispersal and Sociality of Social Insect Colonies ↓ (TCPL 201)
11:45 - 13:30	Lunch ↓ (Vistas Dining Room)
13:30 - 17:30	Free Afternoon (Banff National Park)
17:30 - 19:30	Dinner ↓ (Vistas Dining Room)

Thursday, October 10	
07:00 - 08:45	Breakfast ↓ (Vistas Dining Room)
09:00 - 09:30	Robert Stephen Cantrell: Recent Developments in the Theory and Application of the Ideal Free Distribution in the Evolution of Dispersal ↓ (Online)
09:35 - 10:05	Chris Cosner: Reaction-diffusion-advection models with multiple movement modes ↓ (TCPL 201)
10:10 - 10:35	Coffee Break (TCPL Foyer)
10:35 - 11:05	Thomas Hillen: How the Tulips get their Stripes ↓ (TCPL 201)
11:10 - 11:40	Donald De Angelis: The last days of a long transient regular spatial pattern involving three species ↓ (TCPL 201)
11:45 - 13:30	Lunch ↓ (Vistas Dining Room)
13:30 - 15:55	Bo Zhang: Panel (TCPL 201)
15:30 - 15:55	Coffee Break (TCPL Foyer)
15:55 - 16:15	Wenrui Hao: Data-Driven Modeling of Alzheimer's Disease ↓ (TCPL 201)
16:20 - 16:40	Rana Parshad: Recent results on additional food driven biocontrol with application to the Soybean Aphid ↓ (TCPL 201)
16:45 - 17:05	Léonard Dekens: Sharp habitat shifts, evolutionary tipping points and rescue: the perilous path of a specialist species toward a refugium in a changing environment ↓ (TCPL 202)
17:10 - 17:30	King Yeung Lam: The Ideal Free Distribution in Time-periodic Environments ↓ (TCPL 202)
17:30 - 19:30	Dinner ↓ (Vistas Dining Room)

Friday, October 11	
07:00 - 08:45	Breakfast ↓ (Vistas Dining Room)
09:00 - 09:30	Hao Wang: Recent progress on free boundaries ↓ (TCPL 201)
09:35 - 10:05	Frithjof Lutscher: Evolution of dispersal in a river network ↓ (TCPL 201)
10:10 - 10:35	Coffee Break (TCPL Foyer)
10:30 - 11:00	Checkout by 11AM ↓ (Front Desk - Professional Development Centre)
11:05 - 11:30	Farewell (TCPL Foyer)
11:30 - 13:30	Lunch from 11:30 to 13:30 (Vistas Dining Room)



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