



THE UNIVERSITY OF BRITISH COLUMBIA

DEPARTMENT OF MATHEMATICS

# Mathematical Biology at UBC

[Home](#)
[People](#)
[Upcoming seminars](#)
[Graduate  
Program](#)
[Links](#)
[Positions](#)


## Mathematical Biology and related seminars


[Link to upcoming seminars](#)

 Links to seminars before April 2009:  
[2009](#) [2008](#) [2007](#) [2006](#) [2005](#) [2004](#) [2003](#) [Prior to 2003](#)

### June, 2021

<b>Wednesday,</b> June 2	<b>Jude Kong</b> -- 2:05 pm in Zoom York University The impact of social, economic, environmental factors and public health measures on the dynamics of COVID-19 <a href="#">Abstract</a>
-----------------------------	--

### May, 2021

<b>Wednesday,</b> May 26	<b>Naba Mukhtar</b> -- 2:05 pm in Zoom UBC Simulating Epithelial-Mesenchymal Transition in Cell Sheets <a href="#">Abstract</a>
-----------------------------	--

**Comment:** This is a work in progress talk.

<b>Wednesday,</b> May 19	<b>Christopher Miles</b> -- 2:05 pm in Zoom NYU Stochastic organization in the mitotic spindle <a href="#">Abstract</a>
-----------------------------	--

<b>Wednesday,</b> May 5	<b>Jun Allard</b> -- 2:05 pm in Zoom UCI Optimal curvature in long-range cell-cell communication <a href="#">Abstract</a>
----------------------------	--

### April, 2021

<b>Wednesday,</b> April 28	<b>Calina Copos</b> -- 2:05 pm in Zoom UNC Cell symmetry breaking for movement through a mechanochemical mechanism <a href="#">Abstract</a>
-------------------------------	--

<b>Wednesday,</b> April 21	<b>Kenji Sugioka</b> -- 2:05 pm in Zoom UBC Zoology Extrinsic and intrinsic controls of cortical flow regulate C. elegans embryogenesis <a href="#">Abstract</a>
-------------------------------	---

<b>Wednesday,</b>	<b>Laurent MacKay</b> -- 2:05 pm in Zoom
-------------------	--

April 14	McGill University Feedback onto cellular polarization from paxillin, implications for migrating cells <a href="#">Abstract</a>
Wednesday, April 7	<b>Alexandra Jilkine</b> -- 2:05 pm in Zoom University of Notre Dame G $\beta$ mediated diffusive coupling synchronizes actin oscillators in cell motility <a href="#">Abstract</a>

### March, 2021

Wednesday, March 31	<b>Thomas Fai</b> -- 2:05 pm in Zoom Brandeis University Mathematical models of organelle size control and scaling <a href="#">Abstract</a>
Wednesday, March 24	<b>Anna Nelson</b> -- 2:05 pm in zoom University of Utah Kinetic Polymerization Models and the Roles of Fibrinogen in Fibrin Gel Formation <a href="#">Abstract</a>
<b>Comment:</b>	Hosted by the University of Utah math-Biology Seminar
Wednesday, March 10	<b>Rahuman Sheriff</b> -- 2:05 pm in Zoom hosted by Utah European Molecular Biology Laboratory Reproducibility in Systems Biology Modelling <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Utah seminar schedule</a>
<b>Comment:</b>	Joint seminar with Utah

### February, 2021

Wednesday, February 24	<b>Veronica Ciocanel</b> -- 2:00 pm in Zoom Duke University Modeling and topological data analysis for biological ring channels <a href="#">Abstract</a>
Wednesday, February 10	<b>John Lowengrub</b> -- 2:05 pm in Zoom UCI Multiscale modeling of tissues: Bridging the cell and tissue scales <a href="#">Abstract</a>
Wednesday, February 3	<b>Abby Kindberg</b> -- 2:05 pm in Zoom UCSF Regulation of cell contact and tissue organization by EPH/EPHRIN signaling. <a href="#">Abstract</a>

### January, 2021

Wednesday, January 27	<b>Cole Zmurchok</b> -- 2:05 pm in Zoom Vanderbilt University Mechanosensing can enhance adaptation to maintain polarity of migrating cells <a href="#">Abstract</a>
Wednesday, January 20	<b>Paul Hurtado</b> -- 3:00 pm in Zoom University of Nevada - Reno Deriving and analyzing ODE models using the generalized linear chain trick <a href="#">Abstract</a>
Wednesday, January 13	<b>Daniel J. Cohen</b> -- 2:05 pm in Zoom Princeton University

Jousting, sheepdogs, and spies: paradigms to engineer and control collective cell behaviors

[Abstract](#)

## December, 2020

**Wednesday,**  
December 16

**Katie Faulkner** -- 2:05 pm in zoom  
UBC

Insulin negative feedback and modeling insulin sensitivity

[Abstract](#)

**Wednesday,**  
December 9

**Daniel Coombs** -- 2:05 pm in Zoom  
UBC

Herd immunity and heterogeneity, with application to the covid-19 pandemic

[Abstract](#)

**Wednesday,**  
December 2

**Andreas Buttenschoen** -- 2:05 pm in Zoom  
UBC

TBA

[Abstract](#)

## November, 2020

**Wednesday,**  
November 25

**Nina Miolane** -- 11:00 am in Zoom  
UC Santa Barbara

Geometric statistics for shape analysis of bioimaging data

[Abstract](#)

**Wednesday,**  
November 18

**Amaury Lambert** -- 11:00 am in Zoom  
Sorbonne Université

Two probabilistic models related to the SARS-Cov-2 epidemic

[Abstract](#)

**Wednesday,**  
November 11

**Remembrance Day NO SEMINAR** -- 12:00 am in CANADA

**Wednesday,**  
November 4

**Nessy Tania** -- 2:05 pm in Zoom  
Pfizer

Shaping Your Own Career as a Mathematical Biologist

[Abstract](#)

## October, 2020

**Friday,**  
October 30

**Alexandria Volkening** -- 3:00 pm in Zoom  
Northwestern University

Forecasting the 2020 U.S. elections: a compartmental modeling approach

[Abstract](#)

This seminar is part of the [IAM Colloquium Series](#).

**Comment:**

The is a special "Rising Stars" Mathematical Colloquium

**Wednesday,**  
October 28

**Min Wu** -- 2:05 pm in Zoom  
Worcester Polytechnic Institute

The spatial mapping of physical effects in filamentous growth of moss

[Abstract](#)

**Wednesday,**  
October 21

**Chapin Korosec** -- 2:05 pm in Zoom  
Simon Fraser University

Modelling and engineering burnt-bridges ratchets

[Abstract](#)

**Wednesday,**  
October 14

**Adrianne Jenner** -- 2:05 pm in zoom  
Universite de Montreal

Improving oncolytic virotherapy using hybrid PDE/agent-based models and ODE systems

[Abstract](#)

September, 2020
-----------------

**Wednesday,**  
September 30

**Mark Steven Cembrowski** -- 2:05 pm in zoom  
UBC

Modeling and big data to understand memory in the brain

[Abstract](#)

**Comment:**

For zoom details contact abuttens at math.ubc.ca

**Wednesday,**  
September 23

**Alexandria Volkening** -- 2:05 pm in zoom  
Northwestern University

Modeling and measuring cell dynamics in zebrafish-skin patterns

[Abstract](#)

**Comment:**

Contact abuttens at math.ubc.ca for the zoom link.

**Wednesday,**  
September 16

**Carter Johnson** -- 2:05 pm in Zoom  
Math University of Utah

U. Utah Seminar: Neuromechanical Mechanisms of Locomotion in *C. elegans*

**More info:**

[Utah Math-Biology Seminar Series](#)

**Comment:**

This is a University of Utah Math-Biology seminar that we will share.

**Wednesday,**  
September 9

**Michael Werner** -- 2:05 pm in Zoom  
Biology, U. Utah

U. Utah seminar: Epigenetic mechanisms of developmental plasticity

**More info:**

[Utah math Biology Seminar series](#)

**Comment:**

This is the first math-bio seminar at the University of Utah that welcomes participation from UBC (and elsewhere)

August, 2020
--------------

**Wednesday,**  
August 12

**Austin Hopkins** -- 1:45 pm in Zoom  
University of California, Santa Barbara

Tradeoffs in Chemotaxis in Complex Environments

[Abstract](#)

**Comment:**

Contact abuttens [at] math.ubc.ca for the zoom link.

**Wednesday,**  
August 5

**Magdalena Stolarska** -- 1:45 pm in Zoom  
University of St. Thomas

Modeling the Effects of Cell-Substrate Interaction on the Dynamics of Intracellular Motile Machinery

[Abstract](#)

July, 2020
------------

**Wednesday,**  
July 29

**Jennifer Flegg** -- 1:45 pm in Zoom  
University of Melbourne

Mathematical modelling of the emergence and spread of antimalarial drug resistance

[Abstract](#)

**Wednesday,**  
July 22

**Kasia Rejniak** -- 1:45 pm in Zoom  
Moffitt Cancer Center

Micro-pharmacology: recognizing and overcoming the barriers to drug delivery

[Abstract](#)

**More info:**

[Video](#)

**Comment:**

Contact abuttens at math.ubc.ca for the zoom link.

**Wednesday,**  
July 15

**Shane Hutson** -- 1:45 pm in Zoom  
Vanderbilt University

Something is wrong in the (cellular) neighborhood: Mechanisms of epithelial wound detection

[Abstract](#)

**More info:**

[Video](#)

**Wednesday,**

**David Earn and Jonathan Dushoff** -- 1:45 pm in Zoom

July 8                      McMaster University  
 From 1918 to 2020: analyzing the past and forecasting the future  
[Abstract](#)

### June, 2020

**Wednesday,**            **Qing Nie** -- 1:45 pm in Zoom  
 June 24                      University of California, Irvine  
 Multiscale inference and modeling of cell fate via single-cell data  
[Abstract](#)

**Comment:**            Please contact abuttens@math.ubc.ca for remote connecting details.

**Wednesday,**            **Adam C. Martin** -- 1:45 pm in Zoom  
 June 17                      Massachusetts Institute of Technology  
 Folding tissues across length scales: Cell-based origami  
[Abstract](#)

**Comment:**            Please contact abuttens@math.ubc.ca for remote connecting details.

**Wednesday,**            **Jim Keener** -- 1:45 pm in Zoom  
 June 10                      University of Utah  
 The Mathematics of Life: Making Diffusion Your Friend  
[Abstract](#)

**More info:**            [Video](#)

**Comment:**            Please contact abuttens@math.ubc.ca for remote connecting details.

**Wednesday,**            **Nancy Kopell** -- 12:00 pm in Zoom  
 June 3                        Boston University  
 Brain Rhythms and their Interactions  
[Abstract](#)

**Comment:**            TBA

### May, 2020

**Wednesday,**            **James Glazier** -- 1:45 pm in Zoom  
 May 27                      Indiana University  
 Multiscale multicellular modeling of tissue function and disease using CompuCell3D: A simplified computer simulation of acute primary viral infection and immune response in an epithelial tissue  
[Abstract](#)

**More info:**            [Video](#)

**Wednesday,**            **Marty Golubitsky** -- 1:45 pm in Zoom  
 May 20                      Ohio State University  
 Binocular Rivalry; Modeling by Network Structure  
[Abstract](#)

**More info:**            [Video](#)

**Wednesday,**            **Herbert Levine** -- 1:45 pm in Zoom  
 May 6                        Northeastern University  
 What is epithelial-mesenchymal plasticity and why is it important for metastasis?  
[Abstract](#)

**More info:**            [Video](#)

### April, 2020

**Wednesday,**            **Stanislav Shvartsman** -- 1:45 pm in Zoom  
 April 29                      Princeton University  
 Coupled oscillators in the developing germline cluster

**More info:**            [PIMS event](#)

**Comment:**            This event is hosted online via Zoom and will be recorded. If you would like to join this meeting, please email the organizer at abuttens AT math.ubc.ca

**Wednesday,**            **Wesley Pegden** -- 1:45 pm in Zoom  
 April 22                      Carnegie Mellon University

	Modeling strict age-targeted mitigation strategies for COVID-19 <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Video</a>
<b>Comment:</b>	Please see PIMS remote seminar webpage for the Zoom details.
<b>Wednesday,</b> April 15	<b>Greg Huber</b> -- 1:45 pm in Zoom Chan Zuckerberg Biohub Ambigrammatic genomes: A two-bit tale about some double-dealin nucleotides <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">PIMS event</a>
<b>Comment:</b>	Please see PIMS remote seminar webpage for the Zoom details.
<b>Wednesday,</b> April 8	<b>John Tyson</b> -- 1:45 pm in Zoom Virginia Tec A dynamical paradigm for modeling molecular regulatory networks in cells: Applied to multiple-fission cycles in the green alga Chlamydomonas <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Video</a>
<b>Comment:</b>	Please see PIMS remote seminar webpage for the Zoom details.
<b>Wednesday,</b> April 1	<b>Bard Ermentrout</b> -- 1:45 pm in PIMS remote seminars University of Pittsburgh Follow your nose: The mathematics of olfactory navigation <a href="#">Abstract</a>

### March, 2020

<b>Wednesday,</b> March 25	<b>Alastair Jamieson-Lane</b> -- 1:45 pm in Zoom University of Oldenburg In progress COVID-19 Modelling <a href="#">Video</a>
<b>Wednesday,</b> March 11	<b>Steven Ruuth</b> -- 1:45 pm in ESB4133 Simon Fraser University, Mathematics A numerical method for solving partial differential equations on moving surfaces <a href="#">Abstract</a>
<b>Wednesday,</b> March 4	<b>Carl de Boer</b> -- 1:45 pm in ESB 4133 UBC Biomedical Engineering Random approaches to decipher DNA-encoded gene regulatory logic <a href="#">Abstract</a>

### February, 2020

<b>Wednesday,</b> February 26	<b>Eldon Emberly</b> -- 1:45 pm in ESB 4133 Simon Fraser University; Physics To oscillate or not? Bacteria regulate partition machinery dynamics to faithfully segregate DNA <a href="#">Abstract</a>
<b>Wednesday,</b> February 12	<b>Fred Brauer</b> -- 1:45 pm in ESB 4133 UBC Math A singular perturbation approach to epidemics of vector-transmitted disease. <a href="#">Abstract</a>
<b>Wednesday,</b> February 5	<b>Lewis Liu</b> -- 1:45 pm in ESB 4133 UBC Math Selection Mechanism in Bacteria Collective Migration - Who's left behind? <a href="#">Abstract</a>

January, 2020
---------------

**Friday,**  
January 31

**Daniel Coombs** -- 3:00 pm in ESB2012  
UBC

Real-time modelling of novel coronavirus

[Abstract](#)

**Wednesday,**  
January 29

**Sumreen Javed** -- 1:45 pm in ESB 4133  
Pharmaceutical Sciences

Role of Invadopodia in Tumor Dissemination through the Lymphatic System

[Abstract](#)

**Wednesday,**  
January 22

**Clinton Durney** -- 1:45 pm in ESB 4133  
UBC Math

3D Modelling of Salivary Gland Invagination

[Abstract](#)

**Wednesday,**  
January 8

**Jummy Funke David** -- 1:45 pm in ESB4133  
UBC Math

The Study of Epidemic and Endemic Diseases using Mathematical Models

[Abstract](#)

November, 2019
----------------

**Friday,**  
November 22

**Sookkyung Lim** -- 3:00 pm in ESB 1012  
Dept of Mathematics, University of Cincinnati

Microswimmers propelled by helical flagella: Modeling, Simulations & Analysis

[Abstract](#)

**More info:**

[Department Events page](#)

**Comment:**

This is a Department Colloquium.

**Wednesday,**  
November 20

**Ashok Prasad** -- 4:15 pm in ESB 4133  
Colorado State

Cell Shape and Cell State: Some experimental investigations

[Abstract](#)

**Comment:**

This is part of a special "Double Feature" Math-Biology event on November 20, 2019. it will directly follow after the PIMS Tea, which takes place at 3:45-4:10PM

**Wednesday,**  
November 20

**Thomas Hillen** -- 2:45 pm in ESB 4133  
University of Alberta

Navigating the Flow: The homing of sea turtles.

[Abstract](#)

**Comment:**

This is the first part of a "Double Feature" Math-Biology Seminar on Nov 20. This lecture will precede the PIMS Tea (which takes place at 3:45PM)

**Wednesday,**  
November 13

**Jessica Stockdale** -- 2:45 pm in ESB 4133  
SFU

Pair-based likelihood approximations for stochastic epidemic models

[Abstract](#)

**Wednesday,**  
November 6

**Kirstin Brink** -- 2:45 pm in ESB 4133  
UBC Dentistry

Tooth replacement patterning in reptiles

[Abstract](#)

October, 2019
---------------

**Wednesday,**  
October 30

**Alex Henning** -- 3:00 pm in ESB1012  
Tufts University

Stochastic persistence and extinction

[Abstract](#)

<b>Comment:</b>	Joint-seminar with probability.
<b>Wednesday,</b> October 23	<b>Cindy Greenwood</b> -- 2:45 pm in ESB 4133 UBC Math Noise Sharing and Mexican-Hat Coupling in a Stochastic Neural Field <a href="#">Abstract</a>
<b>Wednesday,</b> October 16	<b>Sarah Hedtrich</b> -- 2:45 pm in ESB 4133 UBC Pharmaceutical Sciences Human-based organ models as tools for (patho-)physiological research in human epithelia <a href="#">Abstract</a>
<b>Wednesday,</b> October 9	<b>Tilman Glimm</b> -- 2:45 pm in ESB 4133 Western Washington University Mathematical Models of Cartilage Pattern Formation in Tetrapod Limb Development: The Role of Galectins <a href="#">Abstract</a>
<b>Wednesday,</b> October 2	<b>David Holloway</b> -- 2:45 pm in ESB 4133 BCIT Leaf vein patterning: growth regulator dynamics of normal and transport-disrupted development <a href="#">Abstract</a>
<b>September, 2019</b>	
<b>Wednesday,</b> September 25	<b>Guy Tanentzapf</b> -- 2:45 pm in ESB 4133 UBC Coordination of cell signalling during hematopoiesis through a gap-junction-mediated network
<b>Wednesday,</b> September 18	<b>Sarafa Iyaniwura</b> -- 2:45 pm in ESB 4133 UBC Math Quorum Sensing and Synchronous Oscillations Triggered by Dynamically Active Signaling Compartments Coupled by Bulk Diffusion <a href="#">Abstract</a>
<b>Wednesday,</b> September 11	<b>Khanh Dao Duc</b> -- 2:45 pm in ESB 4133 UBC Math Mathematical challenges and opportunities in Protein Translation <a href="#">Abstract</a>
<b>Wednesday,</b> September 4	<b>Geoff Schiebinger</b> -- 2:45 pm in ESB 4133 UBC Math Analyzing developmental processes with optimal transport <a href="#">Abstract</a>
<b>August, 2019</b>	
<b>Friday,</b> August 2	<b>Anet Anelone</b> -- 1:00 pm in Math 126 University of Sydney Control analysis of the measles paradox reveals the balance between the production and killing of infected lymphocytes determines viral clearance
<b>May, 2019</b>	
<b>Wednesday,</b> May 29	<b>Anmar Khadra</b> -- 3:15 pm in ESB 4127 McGill Understanding cellular polarity and adhesion dynamics involved in cell motility using spatiotemporal models <a href="#">Abstract</a>
<b>Wednesday,</b> May 22	<b>Uwe Thiele</b> -- 3:15 pm in ESB 4127 University of Muenster Long-wave modelling of spreading biofilms <a href="#">Abstract</a>



<b>Wednesday,</b> May 15	<b>Edward Green</b> -- 1:15 pm in PIMS Lounge ESB 4127 University of Adelaide, Mathematics Modelling and quantification of patterns in tissue development <a href="#">Abstract</a>
<b>Comment:</b>	This is part of a double-feature with a Pizza lunch for participants
<b>Wednesday,</b> May 15	<b>William Holmes</b> -- 12:15 pm in PIMS Lounge ESB 4127 Vanderbilt University Mathematical Modeling of Cellular Organization <a href="#">Abstract</a>
<b>Comment:</b>	This will be part of a double-feature, with a pizza lunch for participants
<b>Wednesday,</b> May 1	<b>Ailene MacPherson</b> -- 2:45 pm in ESB 4127 Department of Zoology, UBC Epidemics and the maintenance of genetic diversity in small populations <a href="#">Abstract</a>

### April, 2019

<b>Wednesday,</b> April 24	<b>Ophélie Ronce</b> -- 2:45 pm in ESB 4127 Peter Wall Institute for Advanced Studies and Université de Montpellier Adapting to climate change: insights from different mathematical models. <a href="#">Abstract</a>
<b>Wednesday,</b> April 10	<b>Joshua Scurll</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC A novel measure of inter-cluster similarity using local dimensionality reduction and alpha shapes facilitates visualization and clustering of high-dimensional data. <a href="#">Abstract</a>
<b>Wednesday,</b> April 3	<b>Rebeca Cardim Falcao</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC Multi-state Diffusion Analysis with Measurement Errors <a href="#">Abstract</a>

### March, 2019

<b>Wednesday,</b> March 27	<b>Catherine Byrne</b> -- 2:45 pm in ESB 4127 Department of Microbiology and Immunology, UBC Understanding the drivers of Epstein-Barr virus shedding with HIV-1 co-infection <a href="#">Abstract</a>
<b>Wednesday,</b> March 13	<b>Alejandra Harrera</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC Identifying unique observations in stochastic optical reconstruction microscopy (STORM) with a spatiotemporal model. <a href="#">Abstract</a>
<b>Comment:</b>	Work in progress talk
<b>Monday,</b> March 11	<b>Paul Kulesa</b> -- 4:00 pm in ESB 4133 (PIMS) Stowers Medical Institute Cell Invasion: News from the Front <a href="#">Abstract</a> This seminar is part of the <a href="#">IAM Colloquium Series</a> .
<b>More info:</b>	<a href="#">IAM website</a>
<b>Comment:</b>	refreshments served at 3:30 in the PIMS Lounge (ESB 4133)
<b>Wednesday,</b> March 6	<b>Douglas Altshuler</b> -- 2:45 pm in ESB 4127 UBC Zoology Biomechanics and neural control of complex locomotion <a href="#">Abstract</a>
<b>More info:</b>	

February, 2019
----------------

<b>Wednesday,</b> February 27	<b>James Johnson</b> -- 2:45 pm in ESB 4127 Department of Cellular and Physiological Sciences, UBC Biological problems on multiple time scales related to the local feedback actions of insulin on pancreatic beta-cells that could benefit from mathematical modelling <a href="#">Abstract</a>
----------------------------------	---

<b>Wednesday,</b> February 6	<b>Joy Richman</b> -- 2:45 pm in ESB 4127 Dept of Dentistry, UBC Organized cell movement is a major mechanism underlying facial morphogenesis <a href="#">Abstract</a>
---------------------------------	---

January, 2019
---------------

<b>Wednesday,</b> January 30	<b>Alastair Jamieson-Lane</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC Deterministic and Stochastic modelling of the Min system <a href="#">Abstract</a>
---------------------------------	--

<b>Comment:</b>	PhD defense practice talk
-----------------	---------------------------

<b>Wednesday,</b> January 23	<b>Frederic Paquin-Lefebvre</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC The dynamics of diffusively coupled oscillators <a href="#">Abstract</a>
---------------------------------	---

<b>Wednesday,</b> January 16	<b>Katie Faulkner</b> -- 2:45 pm in ESB 4127 Department of Mathematics, UBC Modeling human lactation with infant feeding regimens <a href="#">Abstract</a>
---------------------------------	---

<b>Comment:</b>	This is a work in progress talk.
-----------------	----------------------------------

<b>Wednesday,</b> January 9	<b>Sergei Maslov</b> -- 2:45 pm in ESB 4127 Dept.BioEng, Dept.Physics, C.R.Woese Institute f. Genomic Biol., Univ.of Illinois at Urbana-Champaign What's love got to do with it? Stable marriage in microbial ecosystems. <a href="#">Abstract</a>
--------------------------------	---

December, 2018
----------------

<b>Monday,</b> December 3	<b>Alex Mogilner</b> -- 4:00 pm in TBA NYU (Courant Institute) Self-polarization, rapid migration and turning of motile cells <a href="#">Abstract</a>
------------------------------	---

<b>Comment:</b>	This seminar is part of the <a href="#">IAM Colloquium Series</a> .
-----------------	---

<b>Comment:</b>	This lecture is part of the IAM Distinguished Alumni Series
-----------------	---

November, 2018
----------------

<b>Wednesday,</b> November 28	<b>William Carlquist</b> -- 3:00 pm in ESB 4127 Department of Mathematics, UBC Unraveling the Reaction Mechanism of the Min System Using a Homotopy-Minimization Method for Parameter Estimation in Differential Equations <a href="#">Abstract</a>
----------------------------------	--

<b>Wednesday,</b> November 21	<b>Simon van Vliet</b> -- 3:00 pm in ESB 4127 Dept of Zoology, UBC The Role of Multilevel Selection in the Evolution of Microbial Communities <a href="#">Abstract</a>
----------------------------------	---

<b>Wednesday,</b> November 14	<b>Geoff Wasteneys</b> -- 3:00 pm in ESB 4127 Dept of Botany, UBC
----------------------------------	--

## Mechanisms modulating developmental transitions in plants

[Abstract](#)**Wednesday,**  
November 7**Yue Liu** -- 3:00 pm in ESB 4127  
UBC

Modelling the dynamics of GTPase activity

[Abstract](#)**Comment:**

This is a work-in-progress seminar talk. The pIMS tea at 3:45pm will take place following the seminar.

## October, 2018

**Wednesday,**  
October 31**Gerardo Ortigoza** -- 3:00 pm in ESB 4127  
Universidad Veracruzana Mexico

Mathematical modeling and simulation of the Chikungunya spread in Veracruz Mexico

[Abstract](#)**Comment:**

Prof. Ortigoza is a sabbatical visitor in the Department of Mathematics, hosted by Prof Fred Bruer

**Wednesday,**  
October 24**Caroline Colijn** -- 3:00 pm in ESB 4127  
SFU

Connecting genomic data with vaccine design through modelling

[Abstract](#)**Comment:**

Dr. Colijn is a new C150 Chair holder at SFU, and is just recently arrived in BC.

**Wednesday,**  
October 17**Hisashi Ohtsuki** -- 3:00 pm in ESB 4127  
Dept of Evolutionary Studies of Biosystems, The Graduate University for Advanced Studies (SOKENDAI)

Allele frequency spectrum in a cancer cell population

[Abstract](#)**Comment:**

This work was done in collaboration with Prof. Hideki Innan

**Wednesday,**  
October 10**James J. Feng** -- 3:00 pm in ESB 4127  
Department of Mathematics, Department of Chemical and Biological Engineering, University of British

Spontaneous collective migration of neural crest cells

[Abstract](#)**Wednesday,**  
October 3**Joe Yuichiro Wakano** -- 3:00 pm in ESB 4127  
School of Interdisciplinary Mathematical Sciences (IMS), Meiji University  
Derivation of replicator-mutator equation as a limit of individual-based simulations[Abstract](#)**Monday,**  
October 1**Naomi Leonard** -- 3:00 pm in TBA  
Mechanical and Aerospace Engineering, Princeton

TBA

[Abstract](#)**Comment:**This seminar is part of the [IAM Colloquium Series](#).

Naomi Leonard has worked on swarming and aggregation and their implications for robotics. This is a IAM-PIMS Distinguished Colloquium seminar.

## September, 2018

**Thursday,**  
September 27**Frithjof Lutscher** -- 2:00 pm in ESB 4133 (PIMS)  
University of Ottawa

Population dynamics in patchy landscapes

[Abstract](#)**Wednesday,**  
September 19**Nourridine Siewe** -- 3:00 pm in ESB 4127  
UBC Okanagan

Chronic Hepatitis B Virus and Liver Fibrosis: A Mathematical Model

[Abstract](#)

June, 2018
------------

<b>Wednesday,</b> June 27	<b>Gautam Menon</b> -- 3:15 pm in ESB 4127 IMSC, Chennai Modeling cell-substrate de-adhesion dynamics under fluid shear <a href="#">Abstract</a>
<b>Friday,</b> June 22	<b>Gautam Menon</b> -- 11:30 am in Math 126 IMSC Chennai The large-scale architecture of the cell nucleus <a href="#">Abstract</a>
<b>Comment:</b>	Bang on door for access. For best results, knock loudly!
<b>Tuesday,</b> June 19	<b>Mattia Bacca</b> -- 3:00 pm in ESB 4127 UBC, Mechanical Engineering A model for the contraction of polymer gels created by the activity of molecular motors <a href="#">Abstract</a>
<b>Wednesday,</b> June 13	<b>Matthew Osmond</b> -- 3:15 pm in ESB 4127 UBC Zoo Evolutionary rescue <a href="#">Abstract</a>
<b>Wednesday,</b> June 6	<b>Denise Daley</b> -- 3:15 pm in ESB 4127 UBC, Centre for Heart Lung Innovation Great Gene Rush <a href="#">Abstract</a>

May, 2018
-----------

<b>Wednesday,</b> May 30	<b>Alejandra Herrera</b> -- 3:15 pm in ESB 4127 UBC, Math Identifying unique observations in stochastic optical reconstruction microscopy (STORM) with a spatiotemporal model. <a href="#">Abstract</a>
<b>Wednesday,</b> May 16	<b>Cody Palmer</b> -- 3:15 pm in ESB 4127 Institute of disease modeling, Seattle Modeling Approaches to Inform the Control of Human African Trypanosomiasis. <a href="#">Abstract</a>
<b>Wednesday,</b> May 9	<b>Marie Auger-Méthé</b> -- 3:15 pm in ESB 4127 UBC, stats From footsteps to foraging: using movement models to understand animal behaviour <a href="#">Abstract</a>
<b>Wednesday,</b> May 2	<b>Eric Cytrynbaum</b> -- 3:15 pm in ESB 4127 UBC, Math Cortical microtubules deflect in response to cell-surface curvature <a href="#">Abstract</a>

April, 2018
-------------

<b>Wednesday,</b> April 25	<b>Lisanne Rens</b> -- 3:15 pm in ESB 4127 UBC, Math Mathematical biology of cell-extracellular matrix interactions during morphogenesis <a href="#">Abstract</a>
<b>Wednesday,</b> April 18	<b>Reginald McGee</b> -- 3:15 pm in ESB 4127 Ohio State University A bundled approach for high-dimensional informatics problems <a href="#">Abstract</a>

**Wednesday,**  
April 11  
**Felix Funk** -- 3:15 pm in ESB 4127  
UBC, Math  
The Impact of Directed Movement on Ecological Public Goods Interactions  
[Abstract](#)

**Wednesday,**  
April 4  
**Josh Scurll** -- 3:15 pm in ESB 4127  
UBC, Math  
Building a pipeline to study proteomic heterogeneity in B-cell lymphomas using mass cytometry.  
[Abstract](#)

### March, 2018

**Wednesday,**  
March 28  
**Somdatta Sinha** -- 3:15 pm in ESB 5104  
Department of Biological Sciences, IISER Mohali, INDIA  
Modelling Infectious Diseases: From Genomes to Populations  
[Abstract](#)

**Comment:** Prof. Sinha is an International Visiting Research Scholar at the Peter Wall Institute for Advanced Studies (PWIAS); This public talk is shared between PWIAS, the UBC Mathematics Department, and the Pacific Institute for Mathematical Sciences, where she is also affiliated during her visit to UBC.

**Wednesday,**  
March 21  
**Claire Guerrier** -- 3:15 pm in ESB 4127  
UBC, Math  
Modeling calcium dendritic activity in *Xenopus* tadpole neurons.  
[Abstract](#)

**Wednesday,**  
March 14  
**Alexandra Jilkine** -- 3:15 pm in ESB 4127  
Notre Dame University  
Modeling the Dynamics of Cdc42 Oscillation in Fission Yeast  
[Abstract](#)

**Comment:** Refreshments in the PIMS lounge (ESB 4th floor) at 2:45pm

**Wednesday,**  
March 7  
**Andrew Bernoff** -- 3:15 pm in ESB 4127  
Harvey Mudd College  
Agent-Based and Continuous Models of Locust Hopper Bands: The Role of Intermittent Motion, Alignment and Attraction  
[Abstract](#)

**Comment:** <https://www.math.hmc.edu/~ajb/>

**Tuesday,**  
March 6  
**Douglas Altshuler** -- 3:00 pm in ESB 4127  
UBC Zoology  
Biomechanics and neural control of complex locomotion  
[Abstract](#)

**More info:**

### February, 2018

**Wednesday,**  
February 28  
**Amit Apte** -- 3:15 pm in ESB 4127  
ICTS, Bangalore  
Data assimilation and parameter estimation  
[Abstract](#)

**Comment:** <https://home.icts.res.in/~apte/>

**Wednesday,**  
February 21  
**Tommi Muller** -- 3:15 pm in ESB 4127  
UBC  
Embarrassingly Parallel, Infinite Chains: Reducing computational complexity to analyze T immune cell membrane receptor kinetics and generalizing the Hidden Markov Model  
[Abstract](#)

**Wednesday,**  
February 14  
**Andreas Buttenschon** -- 3:15 pm in ESB 4127  
UBC, Math  
Integro-partial differential equation models for cell-cell adhesion and its application

**Abstract**

<b>Wednesday,</b> February 7	<b>Kieran Campbell</b> -- 3:15 pm in ESB 4127 UBC Stats Bayesian latent variable models for understanding (pseudo-) time-series single-cell gene expression data <u><b>Abstract</b></u>
---------------------------------	--

## January, 2018

<b>Wednesday,</b> January 31	<b>Patout Florian</b> -- 3:15 pm in ESB 4127 ENS Lyon, France Lineages in a mutation selection model with climate change <u><b>Abstract</b></u>
---------------------------------	--

<b>Friday,</b> January 26	<b>Angelika Manhart</b> -- 3:00 pm in ESB 2012 Courant Institute NYU Traveling Waves in Cell Populations <u><b>Abstract</b></u>
------------------------------	--

**Comment:** Host: Leah Keshet; This is a Dept of Mathematics Colloquium

<b>Wednesday,</b> January 24	<b>Angelika Manhart</b> -- 3:15 pm in PIMS Lounge ESB 4133 Courant Institute, NYU Mechanical Positioning of Multiple Myonuclei in Muscle Cells <u><b>Abstract</b></u>
---------------------------------	--

**Comment:** Host: Leah Keshet

<b>Friday,</b> January 19	<b>Helen Alexander</b> -- 3:00 pm in ESB 2012 Oxford University Stochastic population dynamic models with applications to pathogen evolution <u><b>Abstract</b></u>
------------------------------	--

**Comment:** Math Department Colloquium

<b>Thursday,</b> January 18	<b>Helen Alexander</b> -- 11:00 am in Math 126 Oxford University Modelling mutations: mechanisms and evolutionary consequences <u><b>Abstract</b></u>
--------------------------------	--

**Comment:** Latecomers without card access please knock loudly on glass door!

<b>Wednesday,</b> January 10	<b>Monika Twarogowska</b> -- 3:15 pm in ESB 4127 ENS Lyon (France) Mathematical model for sequential patterning of tooth signaling centers <u><b>Abstract</b></u>
---------------------------------	--

## December, 2017

<b>Wednesday,</b> December 13	<b>Daphne Nesenberend</b> -- 2:00 pm in PIMS (ESB 4th floor) UBC, Math TBA <u><b>Abstract</b></u>
----------------------------------	--

<b>Wednesday,</b> December 6	<b>Catherine Byrne</b> -- 3:00 pm in PIMS (ESB 4th floor) UBC The Under-Representation of Women in Computational Biology <u><b>Abstract</b></u>
---------------------------------	--

## November, 2017

<b>Wednesday,</b> November 29	<b>Alastair Jamieson-Lane</b> -- 2:00 pm in PIMS (ESB 4th floor) TBA <u><b>Abstract</b></u>
----------------------------------	---

<b>Wednesday,</b> November 22	<b>Laurent Charette</b> -- 2:00 pm in PIMS (ESB 4th floor) UBC, Math
----------------------------------	---

Pattern formation on a Slowly Flattening Spherical Cap: A closest Point Method Approach.

[Abstract](#)

**Wednesday,**  
November 15

**Cole Zmurchok** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Math

Coupling Mechanical Tension and GTPase Signaling to Generate Cell and Tissue Dynamics

[Abstract](#)

**Wednesday,**  
November 8

**Ed Munro** -- 2:00 pm in ESB 5104  
University of Chicago

Cancelled

[Abstract](#)

**Wednesday,**  
November 1

**Hildur Knutsdottir** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Math

Analysis of a discrete model for interacting cells

[Abstract](#)

## October, 2017

**Wednesday,**  
October 25

**Libin Abraham** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Microbiology & Immunology -Math

Altered Receptor Dynamics and Spatial Organization in Primed B cells

[Abstract](#)

**Wednesday,**  
October 18

**William Carlquist** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Math

A Relaxation Method for Differential Equation Parameter Estimation

[Abstract](#)

**Wednesday,**  
October 11

**Frédéric Paquin-Lefebvre** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Math

Interactions of bulk diffusion with localized reactions

[Abstract](#)

**Wednesday,**  
October 4

**Mike Irvine** -- 2:00 pm in PIMS (ESB 4th floor)  
UBC, Math

Linking mathematical models to public health policy: Use of Bayesian inference and Markov models in evaluating the current opioid overdose crisis in British Columbia

[Abstract](#)

## September, 2017

**Wednesday,**  
September 27

**Vincent Calvez** -- 2:00 pm in PIMS (ESB 4th floor)  
CNRS - Université Lyon 1

Traveling waves of bacteria at the mesoscopic scale

[Abstract](#)

## June, 2017

**Wednesday,**  
June 28

**Cory Simon** -- 1:30 pm in MATH 126  
Altius Institute for Biomedical Sciences. Seattle, WA

Statistical learning models to identify the ingredients of enhancer-responsive gene promoters

[Abstract](#)

**Wednesday,**  
June 21

**Judith Bouman** -- 1:30 pm in PIMS (ESB 4th floor)

Modeling the Appearance and Spread of Drug-Resistant Influenza at the Within-Host and Between-Host scales

**Wednesday,**  
June 7

**Peter Lee** -- 1:30 pm in ESB 5104  
Chair, Dept of Immuno-Oncology, City of Hope

Complexity of the Tumor Microenvironment

Abstract

## May, 2017

- Tuesday,**  
May 23      **Yangjin Kim** -- 2:00 pm in MATH 126  
Konkuk University  
The role of microenvironment in regulation of tumor cell growth and invasion in glioblastoma and breast cancer: hybrid approaches  
Abstract
- Monday,**  
May 15      **Marcelo Malheiros** -- 1:30 pm in MATH 126  
Universidade Federal do Rio Grande do Sul, Brazil  
Pattern formation through minimalist biologically inspired cellular simulation  
Abstract
- Wednesday,**  
May 3      **Holly Moeller** -- 1:45 pm in ESB 5104  
UBC  
Trade, Borrow, or Steal: Mathematical models of acquired metabolism

## April, 2017

- Wednesday,**  
April 26      **Roza Ghaemi** -- 1:45 pm in PIMS  
UBC  
Building Brain  
Abstract
- Wednesday,**  
April 5      **Shaimaa Azoz** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, visiting from Assiut University, Egypt  
CANCELLED (to be rescheduled). Dynamics of latently infected cell reservoir and resistance mutation during treated HIV infection.  
Abstract

## March, 2017

- Wednesday,**  
March 29      **Clinton Durney** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Math  
A Proposed Mechanochemical Process for Drosophila Dorsal Closure  
Abstract
- Wednesday,**  
March 22      **Raibatak "Dodo" Das** -- 1:45 pm in PIMS (ESB 4th floor)  
CU Denver  
Using single molecule trajectories to understand the spatial regulation of immune signaling  
Abstract
- Wednesday,**  
March 15      **Gabriela Cohen Freue** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Statistics  
PENSE: a penalized robust estimator for complex sparse regression models  
Abstract
- Wednesday,**  
March 8      **Sarafa Iyaniwura** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Math  
Estimating the rate of absorption on partially permeable biological boundaries  
Abstract
- Wednesday,**  
March 1      **Ailene MacPherson** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Zoology  
Host-parasite coevolution and a few reasons why you should care.  
Abstract

## February, 2017

- Wednesday,**  
February 15      **Eric Cytrynbaum** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Math



## An invariant winding number for the FitzHugh-Nagumo system

[Abstract](#)**Wednesday,**  
February 8**Rebeca Cardim Falcão** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Math

Some analysis on Single Particle Tracking Data

[Abstract](#)

## January, 2017

**Wednesday,**  
January 25**Claire Guerrier** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC, Math

Multi-scale modeling of vesicular release at neuronal synapses.

[Abstract](#)**Wednesday,**  
January 11**Tomas Veloz** -- 1:45 pm in PIMS  
Centre Leo Apostel, VUB Belgium

Chemical Organization Theory and its Application to the Complexity-Stability Problem

[Abstract](#)**Wednesday,**  
January 4**Leah Keshet** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

Navigating biochemical pathways for cell polarization and motility (a personal journey)

## November, 2016

**Wednesday,**  
November 30**Sarder Mohammed Asaduzzaman** -- 1:45 pm in PIMS (ESB 4th floor)  
University of Victoria

The coexistence or replacement of two subtypes of influenza

[Abstract](#)**Wednesday,**  
November 23**Cole Zmurchok** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

Modelling the interplay of cell signalling and cell mechanics

[Abstract](#)**Wednesday,**  
November 16**Catherine Byrne** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

TBD

**Wednesday,**  
November 9**Joshua Scurll** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

The highs and lows of clustering single-cell biological data.

[Abstract](#)**Wednesday,**  
November 2**Fred Brauer** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

A Final Size Relation for Epidemic Models of Vector-Transmitted Diseases

[Abstract](#)

## October, 2016

**Wednesday,**  
October 26**Jacques Bélair** -- 1:45 pm in PIMS (ESB 4th floor)  
Université de Montréal

Feedback, delays and oscillations in blood cell production

[Abstract](#)**Wednesday,**  
October 19**Dhananjay Bhaskar** -- 1:45 pm in PIMS (ESB 4th floor)  
UBC

A Machine Learning Approach to Morphology Based Cell Classification

[Abstract](#)**Wednesday,**  
October 12**Alastair Jamieson-Lane** -- 1:45 pm in PIMS  
UBC

Fun new data for the Min system, and the things I hope to do with it.

[Abstract](#)

<b>Wednesday,</b> October 5	<b>Cindy Greenwood</b> -- 1:45 pm in PIMS (ESB 4th floor) UBC Hidden Patterns Revealed by Noise: semi-arid vegetation patterns <a href="#">Abstract</a>
--------------------------------	--

### September, 2016

<b>Wednesday,</b> September 28	<b>Frederic Paquin-Lefebvre</b> -- 1:45 pm in PIMS (ESB 4th floor) UBC Patterns arising from bulk-surface coupling <a href="#">Abstract</a>
<b>Wednesday,</b> September 21	<b>Mike Irvine</b> -- 1:45 pm in PIMS University of Warwick Modelling the global elimination of lymphatic filariasis
<b>Wednesday,</b> September 14	<b>Andreas Buttenschon</b> -- 1:45 pm in PIMS University of Alberta A space-jump derivation for non-local models of cell-cell adhesion <a href="#">Abstract</a>
<b>Wednesday,</b> September 7	<b>May Anne Mata</b> -- 1:45 pm in PIMS UBC-Okanagan Sustained Oscillations in Stochastic Models With Periodic Parametric Forcing <a href="#">Abstract</a>

### August, 2016

<b>Friday,</b> August 19	<b>Gerda de Vries</b> -- 11:00 am in Math 126 University of Alberta TBA <a href="#">Abstract</a>
-----------------------------	---

### January, 2016

<b>Monday,</b> January 11	<b>Tomas Veloz</b> -- 1:45 pm in PIMS
<b>Monday,</b> January 11	<b>Tomas Veloz</b> -- 1:45 pm in PIMS Centre Leo Apostel, VUB, Belgium Chemical Organization Theory and its Application to the Complexity-Stability Problem
<b>Monday,</b> January 11	<b>Tomas Veloz</b> -- 1:45 pm in PIMS Centre Leo Apostel, VUB, Belgium Chemical Organization Theory and its Application to the Complexity-Stability Problem

### November, 2015

<b>Thursday,</b> November 26	<b>Svetlana Komorova</b> -- 2:00 pm in ESB 4133 McGill University Bone mineralization disorders from the perspective of mathematical modeling <a href="#">Abstract</a>
<b>Friday,</b> November 20	<b>Fred Adler</b> -- 3:00 pm in IAM Lounge University of Utah Dynamics of coinfections: From confusion to diffusion
<b>Comment:</b>	Note special time and place!

### October, 2015

<b>Thursday,</b>	<b>Claude Verdier</b> -- 2:00 pm in ESB 4133
------------------	--

October 1      Universite Joesph Fourier and CNRS  
 Mechanical cues in cancer metastasis  
[Abstract](#)

**More info:**      [Speaker's webpage](#)

### September, 2015

**Thursday,**      **Gautam I. Menon** -- 2:00 pm in ESB 4133  
 September 10      The Institute of Mathematical Sciences, Chennai, India  
 Crowding: Why it might not be a bad idea after all  
[Abstract](#)

**Thursday,**      **Gautam I. Menon** -- 2:00 pm in ESB 4133  
 September 3      Institute of Mathematical Sciences, Chennai, India  
 A Computational Model for Chromosome Positioning  
[Abstract](#)

### August, 2015

**Thursday,**      **Lisanne Rens** -- 11:00 am in Math 126  
 August 27      CWI, Amsterdam and Leiden University  
 A model of mechanical cell-extracellular matrix interactions to study self  
 organization on compliant substrates  
[Abstract](#)

**Comment:**      Lisanne is a PhD student and this work is joint with Prof Roeland Merks

### July, 2015

**Thursday,**      **John MacKenzie** -- 11:00 am in Math 126  
 July 9      University of Strathclyde, Glasgow  
 A Computational Method for the Coupled Solution of Reaction-Diffusion  
 Equations on Evolving Domains and Surfaces: Application to a Model of  
 Cell Migration and Chemotaxis  
[Abstract](#)

**Comment:**      Refreshments available before th seminar at 10:45AM. Please be on time as this  
 room is behind a key-card access door, and we will have to let you in if you are  
 not a Math faculty or grad student.

### May, 2015

**Thursday,**      **Ajay Chitnis** -- 11:00 am in ESB 2012  
 May 28      Section on Neural Developmental Dynamics, National Institute of Child Health and  
 Human Development  
 Using agent based models to understand morphogenesis of the zebrafish  
 posterior lateral line primordium  
[Abstract](#)

**Comment:**      Refreshments will be served in the PIMS lounge at 10:45AM

**Thursday,**      **Anmar Khadra** -- 3:15 pm in Math 126  
 May 7      Dept of Physiology, MacGill U.  
 The biophysics of T-cells: From molecular interactions to population  
 dynamics  
[Abstract](#)

### April, 2015

**Tuesday,**      **Bryan Mayer** -- 3:30 pm in ESB 4133  
 April 28      Fred Hutchinson  
 Statistical and mathematical modeling of human herpesviruses  
[Abstract](#)

**Tuesday,**      **Pavitra Roychoudhury** -- 3:30 pm in ESB4133  
 April 21      Fred Hutchinson  
 Modelling single cells: applications for HIV cure and HSV immunology  
[Abstract](#)

March, 2015
-------------

**Wednesday,**  
March 11

**Joshua Schiffer** -- 3:30 pm in Math 126  
Fred Hutchinson Cancer Research Centre

In silico clinical trials for treatment and eradication of viral infections

[Abstract](#)

**Comment:**

This room has key card access. Do not be shy about banging on door. We will listen and open the door for you. The room is located in the south end of the Math building and the math department mail boxes are visible through the door.

**Tuesday,**  
March 10

**Cindy Greenwood** -- 3:30 pm in PIMS lounge- ESB4133  
UBC

Spatially Structured Neural Systems

[Abstract](#)

February, 2015
----------------

**Tuesday,**  
February 17

**Michael Gilchrist** -- 3:30 pm in ESB 4127 (PIMS)  
University of Tennessee, Knoxville

Mining the Genome: Estimating Gene Expression, Mutation, & Ribosome Pausing Times from Patterns of Codon Usage

October, 2014
---------------

**Thursday,**  
October 23

**Chad Topaz** -- 2:00 pm in PIMS Lounge  
Macalester College

Biological aggregations: Nonlocal PDE, random walks, and bugs

[Abstract](#)

**Thursday,**  
October 2

**Justin Munganga** -- 2:00 pm in ESB 4133  
University of South Africa

Global Analysis of a Model of Human African trypanosomiasis

[Abstract](#)

September, 2014
-----------------

**Tuesday,**  
September 23

**Chihwen Shih** -- 3:30 pm in PIMS lounge, ESB

The Kinetics in Mathematical Models on Segmentation Clock Genes in Zebrafish

**Thursday,**  
September 4

**Leonid Chindelevitch** -- 2:00 pm in ESB 4133 (probably)  
MIT

Modelling tuberculosis, from cells to populations

[Abstract](#)

**Comment:**

ESB 4133 is the PIMS lounge area.

June, 2014
------------

**Friday,**  
June 27

**James Ooi** -- 2:00 pm in Math 126  
UT Dallas

Can an engineer fix cancer? - a modeling approach to unravel p53 regulatory network.

**Tuesday,**  
June 17

**Graham Donovan** -- 11:00 am in Math 126  
University of Auckland

Modelling asthma and clustered ventilation defects

[Abstract](#)

**Comment:**

Behind math mailbox room (key access). Bang on glass door for entry. Bang loud for best results.

May, 2014
-----------

**Tuesday,**  
May 27

**Amanda Swan** -- 1:00 pm in MATH 126  
Alberta

Modelling Brain Tumor Spread Using an Anisotropic PDE Model

[Abstract](#)

**Comment:** This room is usually locked. Bang on door for access. The math dept mailboxes are visible through the door of the room (south end of math building).

**Thursday,**  
May 22 **Michael Irvine** -- 2:00 pm in Math 126  
Warwick University

Using spatial measures to infer underlying dynamics in clonal vegetative ecosystems

[Abstract](#)

**Comment:** This room has key card access. Do not be shy about banging on door. We will listen and open the door for you. The room is located in the south end of the Math building and the math department mail boxes are visible through the door.

April, 2014
-------------

**Thursday,**  
April 17 **Rebecca Tyson** -- 3:00 pm in ?  
UBC-O

The effect of extreme temperature events on developmental dynamics

**Thursday,**  
April 3 **John Stockie** -- 3:00 pm in ESB 2012  
SFU Math

Mathematical modelling of sap flow in maple trees

[Abstract](#)

March, 2014
-------------

**Thursday,**  
March 20 **Ignacio Rozada** -- 3:00 pm in ESB 2012  
BC Centre for Excellence in HIV/AIDS

Getting rid of Hepatitis C for good: Modelling the effect of a test and treat strategy for HCV prevention in British Columbia.

**Thursday,**  
March 6 **Joe Yuichiro Wakano** -- 3:00 pm in ESB 2012  
Meiji Institute for Advanced Study of Mathematical Sciences

Evolutionary branching in deme-structured populations

[Abstract](#)

February, 2014
----------------

**Thursday,**  
February 27 **Jaroslav Ispolatov** -- 3:00 pm in ESB 2012

Chaos and Unpredictability in Evolution

**Monday,**  
February 24 **Paul K. Newton** -- 3:00 pm in LSK 460  
USC

Random Walks, Markov Chains, and Cancer Metastasis Models  
This seminar is part of the [IAM Colloquium Series](#).

**More info:** [IAM Colloquium page](#)

**Thursday,**  
February 6 **Nilima Nigam** -- 3:00 pm in ESB 2012  
SFU Math

A mathematical model of bone remodeling at the cellular level

[Abstract](#)

January, 2014
---------------

**Thursday,**  
January 30 **Hildur Knutsdottir and Josh Scurll** -- 3:00 pm in ESB 2012  
UBC Math

Developing a personalized, adaptive treatment strategy for non-small cell lung cancer (NSCLC)

**Thursday,**  
January 23 **Carlos Castillo Chavez** -- 3:00 pm in ESB 2012  
Arizona State University

Behavior, Dispersal and Epidemics: A Challenging Frontier

[Abstract](#)

**Monday,**  
January 20 **Carlos Castillo Chavez** -- 3:00 pm in LSK 460  
Arizona State

## Computational and Theoretical Epidemiology: Challenges and Opportunities

[Abstract](#)

This seminar is part of the [IAM Colloquium Series](#).

**Thursday,**  
January 16

**Caroline Colijn** -- 3:00 pm in ESB 2012  
Imperial College

Pathogen phylogenies reveal ecological competition

[Abstract](#)

## November, 2013

**Thursday,**  
November 28

**Matthew Miles Osmond** -- 3:00 pm in ESB 2012  
UBC Zoology

Using adaptive dynamics to predict evolution and extinction in changing environments

[Abstract](#)

**Thursday,**  
November 14

**Christoph Hauert** -- 3:00 pm in ESB 2012  
UBC Math

Honour, Shame and Climate Change - Lessons from Public Goods Experiments

[Abstract](#)

## October, 2013

**Thursday,**  
October 31

**Joe Mahaffy** -- 3:00 pm in ESB 2012  
San Diego State

Modeling Epidermal Sensory Neuron Development in Ascidians

[Abstract](#)

**Thursday,**  
October 24

**Sandy Rutherford** -- 3:00 pm in ESB 2012  
SFU

Disease Dynamics on Complex Networks with Applications to the HIV Epidemic in Vancouver

[Abstract](#)

**Thursday,**  
October 17

**Isabell Graf** -- 3:00 pm in ESB 2012  
SFU

Sap flow in maple trees: Fine view and coarse view

[Abstract](#)

**Thursday,**  
October 10

**Stilianos Louca** -- 3:00 pm in ESB2012  
UBC

Discerning externally forced oscillations and autonomous limit cycles using noisy ecological time series

[Abstract](#)

**Thursday,**  
October 3

**Nathan Kuwada** -- 3:00 pm in ESB 2012  
University of Washington

The right place at the right time: Probing the mechanisms of physical organization in bacterial cells

[Abstract](#)

**Tuesday,**  
October 1

**Ronen Avni** -- 2:00 pm in IAM Lounge  
Applied Mathematics, Technion, Israel

Mathematical model for cell motility driven by active gel

[Abstract](#)

**Comment:**

This is an irregular seminar, by a visiting scientist

## September, 2013

**Thursday,**  
September 26

**Nancy Forde** -- 3:00 pm in ESB2012  
SFU physics

Probing multiscale mechanics of collagen

[Abstract](#)

<b>Thursday,</b> September 19	<b>Wes Maciejewski</b> -- 3:00 pm in ESB 2012 UBC Evolutionary game theory in heterogeneous, structured populations <a href="#">Abstract</a>
----------------------------------	---

<b>Thursday,</b> September 12	-- 3:30 pm in ESB1013
----------------------------------	-----------------------

<b>More info:</b>	<a href="#">Truth and Reconciliation PIMS Event</a>
-------------------	---

<b>Thursday,</b> September 5	<b>Peter Kim</b> -- 3:00 pm in ESB2012 University of Sydney Mathematical model of self/nonself discrimination from localized T cell dynamics <a href="#">Abstract</a>
---------------------------------	--

July, 2013
------------

<b>Thursday,</b> July 11	<b>Bernhard Konrad</b> -- 2:00 pm in ESB 2012 UBC Recovering parameters and unobserved states of an epidemic model with missing observations
-----------------------------	--

<b>Thursday,</b> July 4	<b>Alejandra Herrera and Stilianos Louca</b> -- 2:00 pm in ESB 2012 UBC TBA <a href="#">Abstract</a>
----------------------------	---

June, 2013
------------

<b>Thursday,</b> June 27	<b>Mark Zajac</b> -- 2:00 pm in ESB 2012 UBC Modeling collisions between moving cells and rigid, immobile obstacles <a href="#">Abstract</a>
-----------------------------	---

<b>Thursday,</b> June 20	<b>Eric Cytrynbaum</b> -- 2:00 pm in ESB4127 UBC Mechanisms of maltose transport in E. coli
-----------------------------	---

<b>Thursday,</b> June 13	<b>Christopher Angstmann</b> -- 2:00 pm in ESB4127 University of New South Wales A parsimonious model for the dynamics of Min proteins. <a href="#">Abstract</a>
-----------------------------	---

<b>Thursday,</b> June 6	<b>Cindy Greenwood</b> -- 2:00 pm in ESB 4127 UBC A stochastic model for avian flu <a href="#">Abstract</a>
----------------------------	--

May, 2013
-----------

<b>Thursday,</b> May 16	<b>Maziyar Jalaal</b> -- 2:00 pm in ESB 2012 UBC A model for the controlled release of nano-encapsulated tissue plasminogen activator using shear activation <a href="#">Abstract</a>
----------------------------	--

<b>Thursday,</b> May 9	<b>Antoine Baker</b> -- 2:00 pm in ESB 2012 SFU Physics Linking the DNA strand asymmetry to the spatio-temporal replication program <a href="#">Abstract</a>
---------------------------	---

March, 2013
-------------

<b>Thursday,</b> March 28	<b>Daniel Krupp</b> -- 2:00 pm in SWING 121 Queen's University New problems of kin recognition
------------------------------	--

<a href="#"><u>Abstract</u></a>	
<b>Comment:</b>	Note unusual location - on west mall just south of university blvd.
<b>Wednesday,</b> March 27	<b>Matthijs van Veelen</b> -- 3:30 pm in BRC 224 University of Amsterdam In and out of equilibrium: evolution of cooperation in repeated games with population structure. <a href="#"><u>Abstract</u></a>
<b>Comment:</b>	Special seminar, note special time and place
<b>Thursday,</b> March 21	<b>May Ann Mata</b> -- 2:00 pm in ESB 4133 UBC Nonlinear stability analysis of intracellular actin waves model
<b>Thursday,</b> March 14	<b>Karthika Raghavan</b> -- 2:00 pm in ESB 4133 SFU Modeling implications of Epigenetics Mechanisms - from cancer associated genes networks to chromatin remodelling
<b>Thursday,</b> March 7	<b>Joe Wakano</b> -- 2:00 pm in SWNG 121 Meiji University Evolutionary branching in a finite population: Deterministic branching versus stochastic branching <a href="#"><u>Abstract</u></a>
<b>Comment:</b>	Note unusual location "Swing space" building, on West Mall just south of University Blvd.
February, 2013	
<b>Thursday,</b> February 28	<b>Lidan You</b> -- 2:00 pm in ESB 4133 U Toronto TBA
<b>Thursday,</b> February 21	<b>Wanda Strychalski</b> -- 2:00 pm in ESB 4133 UC Davis Insights into cytoplasmic rheology gained from modeling cellular blebbing <a href="#"><u>Abstract</u></a>
<b>Thursday,</b> February 14	<b>Mark Zajac</b> -- 2:00 pm in ESB 4133 UBC Polymer Entropy Can Drive Cell Migration <a href="#"><u>Abstract</u></a>
<b>Thursday,</b> February 7	<b>Jia Guo</b> -- 2:00 pm in ESB 4133 UBC TBA
January, 2013	
<b>Thursday,</b> January 31	<b>Alejandra Herrera-Reyes</b> -- 2:00 pm in ESB 4133 UBC TBA
<b>Thursday,</b> January 24	<b>Eldon Emberly</b> -- 2:00 pm in ESB4133 SFU Physics Controlling the final size of a cell population using asymmetric division <a href="#"><u>Abstract</u></a>
<b>Thursday,</b> January 17	<b>Disease Dynamics 2013: Immunization, a true multi-sca</b> -- 9:00 am in TBA <a href="#"><u>Abstract</u></a>
<b>More info:</b>	<a href="#"><u>Event website</u></a>
<b>Thursday,</b> January 10	<b>Chris Vogl</b> -- 2:00 pm in ESB 2012 Northwestern Various Approaches to Modeling the Lyopreservation of Cells <a href="#"><u>Abstract</u></a>



December, 2012
----------------

<b>Thursday,</b> December 13	<b>Anais Khuong</b> -- 2:00 pm in ESB4192
---------------------------------	---

TBA

<b>Comment:</b>	Note different location than usual
-----------------	------------------------------------

November, 2012
----------------

<b>Thursday,</b> November 22	<b>Joshua Zukewich</b> -- 2:00 pm in ESB 2012 UBC
---------------------------------	--

Learning Grammar with Neural Nets

<b>Thursday,</b> November 15	<b>William Carlquist</b> -- 2:00 pm in ESB 2012 UBC
---------------------------------	--

A computationally Efficient Method for Solving Reaction Diffusion Equations in Rod-Cell Geometry

<b>Thursday,</b> November 8	<b>Omer Dushek</b> -- 2:00 pm in ESB 2012 Oxford University
--------------------------------	--

Non-catalytic tyrosine-phosphorylated receptors

[Abstract](#)

<b>Thursday,</b> November 8	<b>PIMS-IGTC Symposium on Immune Cell Modeling</b> -- 10:00 am in PIMS (ESB 4th floor)
--------------------------------	---

[Abstract](#)

<b>More info:</b>	<a href="#">Event website at PIMS (more information)</a>
-------------------	--

<b>Comment:</b>	Event is from 10am-3pm (including regular seminar by Omer Dushek at 2pm). There will be some sandwiches provided for lunch. Please sign up for your sandwich by email to Ruth Situma, <a href="mailto:ruths@pims.math.ca">ruths@pims.math.ca</a> with subject line: PISoICM2012 Attendance.
-----------------	---

<b>Thursday,</b> November 1	<b>Jun Allard</b> -- 2:00 pm in ESB 2012 University of California, Davis
--------------------------------	---

Actin traveling waves in motile cells

[Abstract](#)

October, 2012
---------------

<b>Thursday,</b> October 25	<b>Cindy Greenwood</b> -- 2:00 pm in ESB 2012 UBC
--------------------------------	--

Genesis of gamma bursts in neural local field potentials

<b>Monday,</b> October 22	<b>Byron Goldstein</b> -- 3:00 pm in LSK 460 Los Alamos National Lab
------------------------------	---

Estimating the probability of polyreactive antibodies disabling a gp41 trimer after T cell-HIV adhesion

<b>More info:</b>	<a href="#">IAM Distinguished Colloquium</a>
-------------------	--

<b>Thursday,</b> October 18	<b>Dan Coombs</b> -- 2:00 pm in ESB 2012 UBC
--------------------------------	---

HIV, antibodies and neutralization

[Abstract](#)

<b>Thursday,</b> October 11	<b>Stilianos Louca</b> -- 2:00 pm in ESB 2012 UBC
--------------------------------	--

Nursery pollination mutualisms as evolutionary traps - A population-genetical mean-field model.

[Abstract](#)

<b>Thursday,</b> October 4	<b>Hildur Knutsdottir</b> -- 2:00 pm in ESB 2012 SFU/UBC
-------------------------------	---

A 3D computational individual cell based model to study the motility of breast cancer cells

[Abstract](#)

<b>Comment:</b>	(use stairs from 1st floor to access room)
-----------------	--

September, 2012
-----------------

<b>Thursday,</b> September 27	<b>Florence Debarre</b> -- 2:00 pm in ESB 2012 UBC Zoology Evolution of social behaviour in spatially structured populations <a href="#">Abstract</a>
<b>Comment:</b>	Enter ESB 2012 (in the new earth science building) by going up the stairs from the ground floor.
<b>Thursday,</b> September 20	<b>Wes Maciejewski</b> -- 2:00 pm in PIMS UBC Fixation Probability and Inclusive Fitness <a href="#">Abstract</a>
<b>Thursday,</b> September 13	<b>Mark Zajac</b> -- 2:00 pm in ESB 2012  Modeling Cell Boundary Dynamics <a href="#">Abstract</a>

May, 2012
-----------

<b>Thursday,</b> May 24	<b>Lakshminarayanan Mahadevan</b> -- 2:00 pm in Math 100 Harvard University On growth and form: geometry, physics and biology <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Math Department Colloquium Page</a>
<b>Comment:</b>	This is the 2012 Department of Mathematics Niven Lecture. Students of Mathematical Biology, and of the 2012 Math Cell Biology course are encouraged to attend.
<b>Tuesday,</b> May 22	<b>Dimitrios Vavylonis</b> -- 9:45 am in WMAX 110 Lehigh University TBA <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Link to MCB 2012 Course Homepage</a>
<b>Comment:</b>	This is a series of 4 talks, one each day from May 22-25 that are part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Thursday,</b> May 17	<b>Adriana Dawes</b> -- 10:00 am in WMAX 216 Ohio State University (Mathematics/Molec Genetics) Spatial segregation of polarity determinants in embryos of the nematode worm <i>C. elegans</i> <a href="#">Abstract</a>
<b>Comment:</b>	Note special time and place. This talk is part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Thursday,</b> May 17	<b>Eric Cytrynbaum</b> -- 2:00 pm in WMAX 110 UBC Mathematics Self-organization in cells - how to use proteins to solve a geometry problem <a href="#">Abstract</a>
<b>Comment:</b>	This talk is part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Tuesday,</b> May 15	<b>William R Holmes</b> -- 11:00 am in WMAX 216 Dept of Mathematics, UBC Reaction-Diffusion Pattern formation <a href="#">Abstract</a>
<b>Comment:</b>	This is a series of talks from May 15 - 18 that are part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training

Center)	
<b>Monday,</b> May 14	<b>Dodo (Raibatak) Das</b> -- 10:00 am in WMAX 110 Dept of Mathematics, UBC Biological Data Analysis <a href="#">Abstract</a>
<b>Comment:</b>	This is a series of talks from May 14 - 18 that are part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Thursday,</b> May 10	<b>Daniel Coombs</b> -- 2:00 pm in WMAX 110 Department of Mathematics, UBC Models of T cell activation based on TCR-pMHC bond kinetics <a href="#">Abstract</a>
<b>Comment:</b>	This talk is part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Monday,</b> May 7	<b>Jun Allard</b> -- 9:45 am in WMAX 216 UC Davis Cell Mechanics <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">Link to MCB 2012 Course Homepage</a>
<b>Comment:</b>	This is a series of 5 talks, one each day from May 7-11 that are part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
<b>Thursday,</b> May 3	<b>James J. Feng</b> -- 2:00 pm in WMAX 110 Department of Mathematics and Department of Chemical and Biological Engineering UBC A particle-based model for healthy and malaria-infected red blood cells <a href="#">Abstract</a>
<b>Comment:</b>	This talk is part of the month-long Mathematical Cell Biology Graduate course, sponsored by the IGTC in Mathematical Biology and PIMS. (IGTC=International Graduate Training Center)
April, 2012	
<b>Thursday,</b> April 5	<b>Rebecca Tyson</b> -- 2:00 pm in WMAX 110 UBC-Okanagan A diffusion-based model to predict transgenic seed contamination in bee-pollinated crops
March, 2012	
<b>Thursday,</b> March 29	<b>Qiming Wang</b> -- 2:00 pm in WMAX 110 UBC Modeling and simulation of dorsal closure <a href="#">Abstract</a>
<b>Tuesday,</b> March 27	<b>Malte Peter</b> -- 12:30 pm in WMAX 110 University of Augsburg A multi-scale approach to reaction-diffusion processes in domains with microstructure <a href="#">Abstract</a>
<b>More info:</b>	<a href="#">UBC SCAIM</a>
<b>Comment:</b>	Note unusual time and date
<b>Thursday,</b> March 15	<b>Chad Topaz</b> -- 2:00 pm in WMAX 110 Macalester College Locust dynamics: Behavioral phase change and swarming <a href="#">Abstract</a>
February, 2012	

**Thursday,**  
February 16

**Michael Rempe** -- 2:00 pm in WMAX 110  
Whitworth University

A mathematical model of human sleep and insomnia

[Abstract](#)

### October, 2011

**Monday,**  
October 31

**Yanghong Huang** -- 3:00 pm in LSK 301  
SFU

A Nonlocal Aggregation Model with Repulsive-Attractive Kernels

[Abstract](#)

**Comment:**

IAM colloquium / math bio seminar

### September, 2011

**Thursday,**  
September 22

**Hans Heesterbeek** -- 2:00 pm in TBA  
Utrecht University

Threshold behaviour and infection dynamics in spatial metapopulations of hosts

[Abstract](#)

### August, 2011

**Monday,**  
August 8

**Len Pismen** -- 2:00 pm in WMAX 216  
Technion

Malleable Cytoskeleton: Mechanics Guided by Chemistry

[Abstract](#)

**Comment:**

PIMS Upstairs

**Thursday,**  
August 4

**Miles Davenport** -- 2:00 pm in WMAX 110  
University of New South Wales

TBA

[Abstract](#)

**Comment:**

Note Thursday seminar

### July, 2011

**Tuesday,**  
July 12

**Thomas Erneux** -- 2:00 pm in WMAX 110  
Universite Libre de Bruxelles

Applications of Delay Differential Equations

[Abstract](#)

### June, 2011

**Thursday,**  
June 16

**Jean-Francois Ganghoffer** -- 2:00 pm in WMAX 110  
LEMTA - ENSEM, Nancy, France

Equivalent properties of biological membranes from lattice homogenization

**Comment:**

Note Thursday seminar

### May, 2011

**Monday,**  
May 2

**Beth Kochin** -- 2:00 pm in WMAX 110  
Emory University

Control of Acute Infections

### April, 2011

**Tuesday,**  
April 26

**Jesus Espinal** -- 2:00 pm in WMAX 110  
UNAM, Mexico

Discrete Dynamics Model for the Speract-Activated Ca<sup>2+</sup> Signaling Network Relevant to Sperm Motility.

[Abstract](#)

**Tuesday,**  
April 19  
**Janak Wedagedera** -- 2:00 pm in WMAX 110  
University of Ruhuna, Sri Lanka  
Some aspects on stochastic Modelling of T-cell activation problem

[Abstract](#)

**Monday,**  
April 11  
**Ramit Mehr** -- 1:55 pm in WMAX 110  
Bar Ilan University  
The complexity of the humoral immune response

[Abstract](#)

**Comment:** \* We are starting a few minutes early as there is a seminar in the same room at 3:00pm

### March, 2011

**Wednesday,**  
March 30  
**Mohammad Fallahi-Sichani** -- 1:00 pm in Math 126  
University of Michigan  
Multi-scale analysis of TNF-regulated immune response to Mycobacterium tuberculosis infection

[Abstract](#)

**Comment:** Note unusual time and place

**Tuesday,**  
March 29  
**Somdatta Sinha** -- 2:00 pm in WMAX 110  
Centre for Cellular & Molecular Biology (CSIR), Hyderabad  
Modelling infectious disease - from genomes to populations

[Abstract](#)

**Tuesday,**  
March 29  
**Janka Petravic** -- 11:00 am in IAM Lounge  
University of New South Wales  
In-host modelling of HIV infection

[Abstract](#)

**Comment:** Note unusual time and place

**Tuesday,**  
March 15  
**Jennifer Trueblood** -- 2:00 pm in WMAX 110  
Cognitive Science Program, Indiana University, Bloomington  
A Quantum Probability Model of Order Effects in Human Inference

[Abstract](#)

**Thursday,**  
March 10  
**Joe Yuichiro Wakano** -- 2:00 pm in WMAX 110  
Meji Institute for Advanced Study of Mathematical Sciences  
Mathematical expression of inclusive fitness theory

[Abstract](#)

**Thursday,**  
March 3  
**Oleg Igoshin** -- 2:00 pm in WMAX 110  
Dept. of Bioengineering, Rice University  
Uncovering self-organization mechanisms in Myxococcus xanthus swarms with modeling and image processing

[Abstract](#)

### February, 2011

**Tuesday,**  
February 22  
**David Holloway** -- 2:00 pm in WMAX 110  
BC Institute of Technology  
Chemical patterning in development: from gene regulation in flies to growth control in plants

[Abstract](#)

**Tuesday,**  
February 8  
**Colin Clark** -- 2:00 pm in WMAX 110  
UBC (emeritus)  
Ocean-atmosphere coupling and the likelihood of doom

[Abstract](#)

### January, 2011

**Thursday,**  
January 27  
**Jennifer Jacquet** -- 2:00 pm in WMAX 110  
UBC Fisheries  
Guilt, shame, and the tragedy of the commons

[Abstract](#)

**Comment:** Co-sponsored with the W. Maurice Young Centre for Applied Ethics.

**Tuesday,**  
January 18  
**Shaun Strohm** -- 2:00 pm in WMAX 110  
UBC-Okanagan  
Dispersal of Mountain Pine Beetle and Impacts of Management  
[Abstract](#)

## November, 2010

**Tuesday,**  
November 30  
**Carlos Castillo-Chavez** -- 2:00 pm in WMAX 110  
Arizona State University  
Growth of Urban Centers and Tuberculosis Decline in the USA  
[Abstract](#)

**Tuesday,**  
November 23  
**Lucas Wardil** -- 2:00 pm in WMAX 110  
Universidade Federal de Minas Gerais  
Coevolution of strategy and network  
[Abstract](#)

**Tuesday,**  
November 16  
**Fred Brauer** -- 2:00 pm in WMAX 110  
UBC  
Some models for tuberculosis  
[Abstract](#)

**Comment:** Fred Brauer has agreed to give this informal survey talk about TB modeling. There will be a reading list advertised later on for students who would like to read up about these interesting problems. This lecture on disease modeling fits into a theme that will be followed up by Carlos Castillo-Chavez later on.

## October, 2010

**Friday,**  
October 29  
**John Lowengrub** -- 1:45 pm in WMAX 110  
UC Davis  
Feedback, lineages and cancer  
[Abstract](#)

**Comment:** Special talk in Dept of Mathematics. Note unusual time and day.

**Thursday,**  
October 21  
**Alan Perelson** -- 2:00 pm in WMAX 110  
Los Alamos National Laboratory  
HIV Dynamics 2010: New Models of Acute HIV Infection  
[Abstract](#)

**Thursday,**  
October 14  
**Alex Mogilner** -- 2:00 pm in LSK 301  
UC Davis  
Mechanics of cell migration  
[Abstract](#)

**Tuesday,**  
October 5  
**Yue-Xian Li** -- 2:00 pm in WMAX 110  
UBC  
Viability of Autocrine Regulation in Synchronizing Diffusely Distributed Endocrine Neurons Producing Pulsatile Hormonal Signals  
[Abstract](#)

## September, 2010

**Tuesday,**  
September 28  
**William Holmes** -- 2:00 pm in WMAX 110  
UBC  
A 3D computational model of the Mammalian Cochlea with Asymptotics  
[Abstract](#)

**Tuesday,**  
September 21  
**Adriana Dawes** -- 2:00 pm in Math 125  
U Alberta  
Symmetry breaking in the early *C. elegans* embryo  
[Abstract](#)

**Comment:** (Note the meeting place!)

**Tuesday,**  
September 14

**Isabell Graf** -- 2:00 pm in WMAX 110

TBA

[Abstract](#)

### August, 2010

**Tuesday,**  
August 17

**Prof. Chih-Wen Shih** -- 2:00 pm in WMAX 110

Dept of Applied Math, National Chiao Tung University, Hsinchu, Taiwan

Synchronized Oscillation for Segmentation Clock Gene of Zebrafish

[Abstract](#)

### June, 2010

**Thursday,**  
June 10

**Arne Traulsen** -- 2:00 pm in WMAX 110

Max-Planck Institute for Evolutionary Biology

Human strategy updating in a spatial game

[Abstract](#)

**Tuesday,**  
June 1

**Jose Faro** -- 2:00 pm in WMAX 110

University of Vigo

Analysis of TcR diversity in CD4+ T cells

[Abstract](#)

### April, 2010

**Tuesday,**  
April 6

**Elissa Schwartz** -- 2:00 pm in WMAX 110

Washington State University

Using Mathematical Models to Predict Vaccine Strategies for Viral Infections

[Abstract](#)

### March, 2010

**Tuesday,**  
March 16

**David Odde** -- 2:00 pm in WMAX 110

Department of Biomedical Engineering, University of Minnesota

Microtubule assembly dynamics at the nanoscale

[Abstract](#)

**Tuesday,**  
March 2

**Joe Wakano** -- 2:00 pm in WMAX 110

Meiji University

Chaotic Dynamics in Spatial Public Goods Games

[Abstract](#)

### February, 2010

**Tuesday,**  
February 9

**Pik-Yin Lai** -- 2:00 pm in WMAX 110

National Central University, Taiwan

Frequency Variation and Waves in Coupled Excitable Systems

[Abstract](#)

### January, 2010

**Thursday,**  
January 14

**Burt Simon** -- 2:00 pm in WMAX 216

University of Colorado

POSTPONED! NEW DATE TBA

[Abstract](#)

**Tuesday,**  
January 12

**Omer Dushek** -- 2:00 pm in WMAX 110

Oxford University

Dose-response reveals the importance of T cell receptor - peptide-MHC kinetics in T cell activation

[Abstract](#)

### December, 2009

**Tuesday,**  
December 8

**Rafael Meza** -- 2:00 pm in WMAX 110  
BCCDC

Infectious Diseases and Cancer

[Abstract](#)

**Thursday,**  
December 3

**William Robert Holmes** -- 2:00 pm in WMAX 216  
Indiana, Mathematics

A 3D computational model of the Mammalian Cochlea with Asymptotics

[Abstract](#)

**Comment:**

Note unusual time and date

### November, 2009

**Tuesday,**  
November 24

**Steve Andrews** -- 2:00 pm in WMAX 110  
Fred Hutchinson Cancer Research Institute

Simulating cell biology with spatial accuracy and single molecule detail

[Abstract](#)

**Tuesday,**  
November 17

**Helen Alexander** -- 2:00 pm in WMAX 110  
Queen's University

Branching Processes in Evolutionary Epidemiology

[Abstract](#)

**Tuesday,**  
November 10

**Jennifer Young** -- 2:00 pm in WMAX 110  
UNC, Chapel Hill, NC

A Numerical Model of Cellular Blebbing

[Abstract](#)

**Friday,**  
November 6

-- 11:30 am in Fredric Wood Theatre

**More info:**

[MITACS 10th anniversary celebration with public lecture on H1N1](#)

**Tuesday,**  
November 3

**Matthias Conrad** -- 2:00 pm in WMAX 110  
Emory University

Optimal experimental design and parameter estimation for the energy metabolism

[Abstract](#)

### October, 2009

**Thursday,**  
October 22

**Chad Higdon-Topaz** -- 2:00 pm in WMAX 110  
Department of Mathematics/Computer Science, Macalester College

Biological aggregation patterns and the role of social interactions

[Abstract](#)

**Comment:**

This week's seminar will take place on Thursday!

**Tuesday,**  
October 6

**Andrew Rutenberg** -- 2:00 pm in WMAX 110  
Dept. of Physics, Dalhousie University

Models and manipulations: Min oscillations inside an E. coli bacterium

[Abstract](#)

**Friday,**  
October 2

**Claude Muller** -- 1:30 pm in PWI Conference Room  
National Public Health Laboratory, Luxembourg

The spread and evolution of Highly Pathogenic Avian Influenza H5N1 virus in poultry, wild birds and humans in Africa

[Abstract](#)

**More info:**

[Peter Wall Events](#)

**Comment:**

This special lecture is part of the Peter Wall Institute Colloquium Series. Refreshments will be served at 1:30pm, and the lecture will begin at 2:00pm. The event takes place in the Peter Wall Inst conference room, University Center.

### September, 2009

**Tuesday,**  
September 22

**Peter Borowski** -- 2:00 pm in WMAX 110  
University of British Columbia



The Min system in E.coli: A stochastic polymer model and new ideas for experiments

[Abstract](#)

**Monday,**  
September 21

**Alain Goriely** -- 3:00 pm in LSK 301  
University of Arizona

The Mechanics and Mathematics of Growth and Remodeling in Biological Systems

[Abstract](#)

This seminar is part of the [IAM Colloquium Series](#).

**Wednesday,**  
September 16

**Richard Liang** -- 3:00 pm in WMAX 216  
Mathematics, UBC

Models in population genetics with continuous geography

[Abstract](#)

This seminar is part of the [Probability Seminar Series](#).

**Tuesday,**  
September 15

**Rodrigo Restrepo** -- 2:00 pm in WMAX 110  
University of British Columbia

On the Emergence, Replication and Abundance of some Early Cell Structures

[Abstract](#)

### August, 2009

**Monday,**  
August 31

**Elias August** -- 2:00 pm in WMAX 216  
Department of Computer Science, Swiss Federal Institute of Technology (ETH) Zurich  
Elucidating pathways in bacterial chemotaxis & a novel method for checking parameter identifiability

[Abstract](#)

### July, 2009

**Thursday,**  
July 16

**Andre Longtin** -- 2:00 pm in WMAX 216  
University of Ottawa

Neural Coding in Electric Fish

[Abstract](#)

### April, 2009

**Thursday,**  
April 23

**Bahman Davoudi Dehaghi** -- 2:00 pm in WMAX 216  
BC Centre for Disease Control

Early Real-time Estimation of the Basic Reproductive Number

[Abstract](#)

**Thursday,**  
April 16

**Joe Yuichiro Wakano** -- 2:00 pm in WMAX 216  
Meiji Institute for Advanced Study of Mathematical Sciences

Origin of culture: an evolutionary model of social learning

[Abstract](#)

**Wednesday,**  
April 15

**Christopher A. Del Negro** -- 2:00 pm in WMAX 216  
The College of William and Mary

Emergent network properties in the preBotzinger Complex: the cellular and synaptic mechanisms of respiratory rhythm generation

[Abstract](#)

**Comment:**

This is not the usual mathbiology seminar time.



Seminar series sponsored by PIMS.

