

Submittee: Daniel Coombs
Date Submitted: 2014-01-20 12:18
Title: 2013 IGTC Annual Summit
Event Type: Conference-Workshop

Location:
Banff International Research Station

Dates:
November 8-10, 2013

Topic:
Student-oriented workshop in mathematical biology

Methodology:
Lectures, discussion, multiple poster sessions and brief research presentations by students. The format for students was to present a poster and then give a 5-min talk on the same topic. Because the audience was already familiar with the main topics and methods from the poster, this allowed each student to expand on future possibilities or special difficulties of their work. I think this was quite successful.

Objectives Achieved:
Our main objective was to provide a platform for student presentations of research, and to deliver information on the challenges of a career in mathematical biology. In my opinion, we achieved both objectives.

Scientific Highlights:
Excellent lectures were presented by Jun Allard (IGTC Alumnus, UC Irvine), Christina Cobbold (University of Glasgow) and Caroline Bampfylde (ex-IGTC coordinator, now Alberta Environment). However the main highlights were the very high quality posters and research talks presented by students.

Organizers:
Coombs, Daniel, Mathematics, UBC // Situma, Ruth, PIMS, UBC

Speakers:
Technical talks: 1. Jun Allard (Mathematics and Physics, UC Irvine) Models for cell motility. 2. Christina Cobbold (Mathematics, Glasgow) First-passage time analysis and applications to ecology.

3. Caroline Bampfylde (Alberta Environment) Applications of mathematical modelling for real-life environmental questions. /// Career Talks: 1. Dave Campbell (Statistics, SFU) "Establishing Collaborations". 2. Dan Coombs (Mathematics, UBC) "Career Transitions in Mathematical Biology". 3. Rebecca Tyson (Mathematics, UBC-O) Perspectives on family". /// Student Posters/Talks: 1. Michael Akinwumi (Mathematics, Alberta) Parameters that influence variation in EBV-infected B cells. 2. Andreas Buttenschoen (Mathematics, Alberta) A mathematical model for the interaction between tumour cells and macrophages at the tumour invasion front". 3. Contreras Carlos (Mathematics, Alberta) Understanding the binding mechanism of histone H1 using model comparison methods and FRAP experiments. 4. Oksana Chkrebti (Mathematics, SFU) Transdimensional Approximate Bayesian Inference in Ecological Models of Invasion and Spread of Non-Native Species. 5. Garrett Culos (Mathematics, UVic) Effect of Temperature Variability on the Synchronization of Mountain Pine Beetle (*Dendroctonus ponderosae*). 6. Jummy David (Mathematics, UBC) A model for analysis of Drug abuse and HIV infection Peng Du (Mathematics, Alberta) The basic reproduction number for multi-group and patched SIR models. 7. Susan Fassnacht (Zoology, UBC) Adaptive diversification in variable environments Eric Foxall (Mathematics, UVic) A Stochastic Spatial SEIS Model. 8. Alejandra Herrera (Mathematics, UBC) Models of HIV and SIV infections after treatment interruption. 9. Muhammad Sajid Iqbal (Chemistry, Lethbridge) Macromolecular crowding and the thermodynamics of conformational equilibrium. 10. Hildur Knutsdottir (Mathematics, UBC) Modelling Collective Cell Migration. 11. Bernhard Konrad (Mathematics, UBC) A Stochastic Mathematical Model to Estimate the Length of the Eclipse Phase in Early HIV Infection. 12. Stilianos Louca (Mathematics, UBC) Discerning forced oscillations and limit cycles using ecological time series. 13. May Anne Mata (Mathematics, UBC-O) Approximation of a stochastic avian flu dynamics model. 14. Ashok Rajaraman (Mathematics, SFU) Scaffolding the genome of the Black Death agent. 15. Amanda Swan (Mathematics, UBC) Brain Tumor Modeling Using Anisotropic Diffusion. 16. Veljee Wafa (Mathematics, Alberta) How does irradiating a tumor affect its cell division kinetics? 17. Diana White (Mathematics, Alberta) Microtubule organization in the presence of motor proteins. 18. Tenghu Wu (Mathematics, Alberta) A particle-based model to simulate malaria-infected red blood cell passing through microfluidic channels. 19. Zhong Xiaojing (Mathematics, Alberta) Stationary Distribution of Stochastic Differential Equation Model. 20. Chuang Xu (Mathematics, Alberta) Break the Curse of Disease Extinction. 21. Zhimin Su (Mathematics, Alberta) Modeling of Chinese HIV/AIDS epidemic in a rapid changing phase of times and environments.

Links:
