Curriculum Vitae

Personal Information

Name	Clinton H. Durney
Address	1984 Mathematics Road, Vancouver, BC V6T 1Z2, Canada
Phone	+1 301 876 2931
Email	cdurney@math.ubc.ca
WWW	clintondurney.github.io

Education

Sept. 2015 – Present **The University of British Columbia,** *Vancouver, BC*
Ph.D in Applied Mathematics
Dissertation: Biophysical Modelling of Tissue Morphogenesis
Advisor: Dr. James J. Feng

May, 2013 **The Ohio State University,** *Columbus, OH*
M.S. in Mathematics
Thesis: A Two-Component Model for Bacterial Chemotaxis
Advisor: Dr. Chuan Xue

May, 2011 **Virginia Polytechnic Institute and State University (Virginia Tech),** *Blacksburg, VA*
B.S. in Physics
B.S. in Mathematics

Publications

4. **Durney, C.H.**, Harris T.J.C, and Feng J.J. "Dynamics of PAR proteins explain the oscillation and ratcheting mechanisms in dorsal closure." *Biophysical journal* 115.11 (2018)

3. **Durney, C.H.**, Case, S.O., Pleimling, M., and Zia, R.K.P. "Stochastic evolution of four species in cyclic competition." *Journal of Statistical Mechanics: Theory and Experiment* 2012.06 (2012)

2. **Durney, C. H.**, Case, S.O., Pleimling, M., and Zia, R.K.P. "Saddles, arrows, and spirals: deterministic trajectories in cyclic competition of four species." *Physical Review E* 83.5 (2011)

1. Case, S.O., **Durney, C.H.**, Pleimling, M., and Zia, R.K.P. "Cyclic competition of four species: Mean-field theory and stochastic evolution." *EPL (Europhysics Letters)* 92.5 (2011)

Professional Experience

May 2013 – June 2015 **Varee International School** *Chiang Mai, Thailand*
A/AS Level Mathematics and Physics Instructor

- Taught to the Cambridge International (CIE) Examinations
- Taught Pure Mathematics 1-3, Statistics 1, Mechanics 1 syllabi
- Taught entire Physics syllabus
- Managed an internationally diverse classroom
- Worked in a diverse workplace

Talks - Selection of Contributed and Invited

July, 2019 **Dynamics of PAR proteins explain oscillation and ratcheting mechanisms in *Drosophila* dorsal closure**, *Society for Mathematical Biology (SMB) Annual Meeting*, Montreal, Quebec

July, 2019 **Dynamics of PAR proteins explain oscillation and ratcheting mechanisms in *Drosophila* dorsal closure**, *Frontiers in Biophysics*, Simon Fraser University, Vancouver, BC

March, 2018 **Translocation and interaction of PAR proteins explain oscillation and ratcheting mechanisms during *Drosophila* dorsal closure**, *APS March Meeting*, Los Angeles, CA

March, 2017 **A proposed mechanochemical process for *Drosophila* dorsal closure**, *UBC Mathematical Biology Seminar*, University of British Columbia, Vancouver, BC

Aug., 2011 **Four species in cyclic competition: Mean-field and stochastic results**, Workshop for Young Researchers in Mathematical Biology, Mathematical Biosciences Institute, Columbus, OH

March, 2011 **Mean-field theory of four species in cyclic competition**, *APS March Meeting* Dallax, TX

Dec, 2010 **Mean-field Theory (MFT) predictions for four species in cyclic competition**, *104th Statistical Mechanics Conference* Rutgers Univ., New Brunswick, NJ

Workshops

June, 2019 **Bridging Cellular and Tissue Dynamics from Normal Development to Cancer: Mathematical, Computational, and Experimental Approaches**, BIRS International Research Station, Banff, AB

May, 2017 **PIMS Workshop on stochastic and deterministic modelling with PDEs**, Jasper National Park, AB

June, 2012 **MBI - NIMBioS - CAMBAM Summer Graduate Workshop on Stochastics Applied to Biological Systems**, Mathematical Biosciences Institute, Columbus, OH

May, 2012 **Evolution Equations: A Workshop in honor of Terence Tao**, Northwestern University, Evanston, IL

Feb., 2011 **SAMSI Two-Day Undergraduate Workshop**, SAMSI, Research Triangle Park, Raleigh, NC

Awards

2019 Stanley M. Grant Scholarship in Mathematics, University of British Columbia

2019 Department of Mathematics Travel Grant, University of British Columbia

2019 Institute of Applied Mathematics Travel Grant, University of British Columbia

2015-Present International Tuition Award, University of British Columbia

2015-Present Faculty of Science PhD Tuition Award, University of British Columbia

2009 Daniel C. and Delia F. Grant Scholarship, Virginia Tech Physics Dept.

2008 Richard C. Coleman Scholarship, Virginia Tech Physics Dept.