

CARLY ROZINS

crozins@berkeley.edu ◊ 510-229-7499
VLSB 5015, Berkeley, California 94720. USA
Citizenship: Canadian

EDUCATION

- PhD in Applied Mathematics** *Sept., 2016*
Queen's University, Ontario
Thesis: An impulsive differential equation model for Marek's disease.
Advisors: Troy Day and Peter Taylor
- MSc in Applied Mathematics** *Sept., 2009*
Queen's University, Ontario
Thesis: Parameter estimation when there is process and observational error.
Advisor: Peter Taylor
- BSc in Biology and Mathematics** *June, 2008*
University of Guelph, Ontario

EXPERIENCE

- Research Fellow** *Sept., 2016- present*
University of California, Berkeley
College of Life and Environmental Sciences, University of Exeter
- Mathematical Modelling and Surveillance Internship** *Nov., 2009 - Feb., 2010*
McGill University and Direction De La Santé Publique, Montreal, QC
Canadian Consortium for Pandemic Preparedness Modelling

PUBLICATIONS

1. Bartlett*, L.J., Rozins*, C., Brosi, B.J., Delaplane, K.S., de Roode, J.C., White, A.R., Wilfert, L., Boots, M. (2018). Industrial bees: when agricultural intensification doesn't impact local disease prevalence. bioRxiv 428656; doi: <https://doi.org/10.1101/428656>
2. Rozins*, C., Silk*, M., Croft, D.P., Delahay, R.J., Hodgson, D., McDonald, R.A., Weber, N., Boots, M. (2018), Social structure and individual variation in contacts protects against severe epidemics in European Badgers. *Ecol. Evol.* (accepted)
3. Rozins, C. and Day, T. (2017). The industrialization of farming may be driving virulence evolution. *Evol Appl*, 10: 189-198.
4. Rozins, C. and Day, T. (2016). Disease eradication on large industrial farms, *J. Math. Biol.* 73(4): 885-902
5. Cressler, C.E., McLeod, D.V., Rozins, C., Van Den Hoogen, J. and Day, T. (2016), The adaptive evolution of virulence: a review of theoretical predictions and empirical tests. *Parasitology*, 143(7): 915-930.

* joint lead authors

Manuscripts in Submission/Review/Revisions

1. Rozins, C., Day, T., Greenhalgh, S. (2018), Managing Marek's disease in the egg industry. *Epidemics* (in revision)

* joint lead authors

TECHNICAL REPORTS

1. Rozins, C., Greenhalgh, S., Day, T. (2017), The economic burden of Marek's disease on egg production. Egg Farmers of Canada Fact Sheet.
2. Rozins, C., Delorme, M, Charland, K, Dushoff, J., Buckeridge, D.L. (2011), Modeling the multiple-wave pattern of the 2009 A/H1N1 pandemic. CanPan Internship final report

GRANTS

- Egg Farmers of Canada, \$10,000 CAD** *Sept., 2016 - Dec., 2016*
Reducing the economic impact of Marek's disease on egg production through the use of floor pens as hen housing.
- SMB Landahl-Busenbergr travel grant, \$750 USD** *Summer, 2018*

TEACHING EXPERIENCE (LECTURER)

- Calculus II for Engineers, Adjunct Lecturer** *Jan., 2016 - April, 2016*
Faculty of Engineering and Applied Science
(265 students), Queen's University, Ontario
- Calculus I for Engineers, Adjunct Lecturer** *Sept., 2015 - Dec., 2015*
Faculty of Engineering and Applied Science
(265 students), Queen's University, Ontario
- Differential and Integral Calculus I, Teaching Fellow** *June, 2015 - Aug., 2015*
Faculty of Arts and Sciences (online)
(150 students), Queen's University, Ontario
- Introduction to Linear Algebra, Teaching Fellow** *Jan., 2015 - April, 2015*
Faculty of Arts and Sciences
(200 students), Queen's University, Ontario

AWARDS

- Engineering and Applied Science First Year Instructor Teaching Award** Winter, 2016
Queen's University, Kingston, ON.
- Queen Elizabeth II Graduate Scholarship in Science and Technology** Winter, 2014
Awarded to graduate students enrolled in science and technology disciplines
- Best Student Poster Award** Dec., 2013
Canadian Mathematics Society, Winter Meeting, Ottawa, ON.

OTHER ACADEMIC TEACHING EXPERIENCE

- Guest Lecturer**
- Host-Pathogen Interactions, University of California, Berkeley Fall, 2017

- Infectious Disease Dynamics, University of California, Berkeley Winter, 2016
- Biomathematics, Queen's University Fall, 2016
- Statistics for Psychology, St. Lawrence College Winter, 2014
- Evolutionary Game Theory (three lectures), Queen's University Fall, 2011

Teaching Assistant Appointments

- *Coordinator*
 - Coordinator for Differential and Integral Calculus I and II, Queen's University 2013/2014
 - TA Coordinator for Calculus I, UBC, Okanagan Winter, 2011
- *Lab and Tutorial Instructor*
 - Numerical Methods, Queen's University Winter, 2014
 - MATLAB for Civil Engineers, Queen's University Fall, 2011/2012
 - Introductory Physics (Mechanics), UBC, Okanagan Fall, 2010
- *Field Course Assistant*
 - Models in Evolution, Bamfield Marine Science Center, University of Victoria Summer, 2010
- *Course Teaching Assistant / Marker,*
 - Calculus I, II, III, Queen's University 2008-2014
 - Linear Algebra, Queen's University, UBC, Okanagan
 - Partial Differential Equations, UBC, Okanagan
 - Evolutionary Game Theory, Queen's University
 - Biomathematics, Queen's University
 - Numerical Methods, Queen's University

PRESENTATIONS AND MEETINGS

Mathematical Biology/Ecology/Evolution

- *Disease Ecology Meeting Princeton/UCB/Hokkaido.* Sausalito, CA Sept., 2018
- *SMB.* Sydney, NSW, Australia July, 2018
- *SMB.* Salt Lake City, UT, USA July, 2017
- *EEID.* Santa Barbara, CA, USA June, 2017
- *Evolution.* Austin, TX, USA June, 2016
- *EEID.* Ithaca, NY, USA June, 2016
- *EEID.* Athens, GA, USA May, 2015
- *EEID.* Fort Collins, CO, USA May, 2014
- *CMS Winter Meeting.* Ottawa, ON, Canada Dec. 2013
- *SMB.* Knoxville, TN, USA July, 2013
- *UBC Graduate Seminar for Math, Stat and Physics.* Kelowna, BC, Canada Oct., 2010
- *PIMS IGTC Summit.* Naramata, BC, Canada Oct., 2010
- *McMaster University.* Biology Seminar, Hamilton, ON, Canada July, 2010
- *Direction de Danté Publique.* Montreal, QC, Canada Jan., 2010

Math Education

- *CMESG.* Kingston, ON, Canada June, 2016
- *MathEd Forum.* Fields Institute, Toronto, ON, Canada Nov., 2015
- *Math and Coding Symposium.* London, ON, Canada June, 2015
- *CMESG.* Moncton, NB, Canada June, 2015
- *CMEF.* Ottawa, ON, Canada May, 2014

ACADEMIC SERVICE

Editor

- Newsletter Editor, Canadian Mathematics Education Study Group, 2016-present

Science Camp Instructor/Coordinator

- *Math Festival*, Gr. 9-12, Marin Academy, Marin, CA Fall, 2016
- *Math Quest, math camp for girls*, Gr.10-11, Queen's University 2014-2016
- *Enrichment Studies Unit, course for at risk students*, Gr.7-8, Queen's University Fall, 2015
- *Enrichment Studies Unit, academic mini course*, Gr.7-8, Queen's University Fall, 2014

Exhibit Organizer

- College Royal, Club Exhibit, Math&Stats Club, University of Guelph Winter, 2008

Voluntary Positions Held

- *High School Tutor*, Girls Inc of Alameda, Oakland, CA 2018 (ongoing)
- *President of the Graduate Math Society*, Queen's University 2013-2014
- *Science Fair Judge, Glenmore Elementary School*, (2010), Kelowna, BC Fall, 2010
- *President of the Mathematics and Statistics Club*, University of Guelph 2007-2008
- *Student Council Member*, University of Guelph 2007-2008