

# Demetri Pananos

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## Research Interests

My academic interests continue to evolve, but one motif that has persisted is the application of mathematics to medical science. As of late, I have become increasingly interested in computational statistics, Bayesian methods, and what has begun to be described as data science. My other interests include dynamical systems, mathematical biology, and machine learning.

## Education

|        |                     |                              |
|--------|---------------------|------------------------------|
| Ph.D   | Biostatistics       | Western University, Present  |
| M.Math | Applied Mathematics | University of Waterloo, 2016 |
| B.Sc   | Applied Mathematics | Western University, 2014     |

## Publications

### *Papers in Refereed Journals*

1. **Pananos, A. D.**, Bury, T. M., Wang, C., Schonfeld, J., Mohanty, S. P., Nyhan, B., ...& Bauch, C. T. Critical dynamics in population vaccinating behavior. *Proceedings of the national academy of sciences*
2. Chadwick, S.R., **Pananos, A.D.**, Di Gregorio, S.E., Park, A.E., Etedali-Zadeh, P., Duennwald, M.L. and Lajoie, P., 2016. A Toolbox for Rapid Quantitative Assessment of Chronological Lifespan and Survival in *Saccharomyces cerevisiae*. *Traffic*, 17(6), pp.689-703.
3. Lamb, T.D., Corless, R.M. and **Pananos, A.D.**, 2015. The kinetics of regeneration of rhodopsin under enzyme-limited availability of 11-cis retinoid. *Vision research*, 110, pp.23-33.

## Conference Presentations

1. *Early Warning Signals of Vaccine Scares* presented at Canadian Applied and Industrial Mathematics Society at The University of Alberta, June 26 - 30 2016.
2. *Early Warning Signals of Vaccine Scares* presented at The International Workshop on Applied Probability at The University of Toronto, June 20 - 23 2016.
3. *Early Warning Signals of Vaccine Scares* presented at Southern Ontario Graduate Mathematics & Statistics Conference at The University of Guelph, June 13 - 14 2016.

## Attended Conferences

*Canadian Applied and Industrial Mathematics Society* at The University of Alberta, June 26-30 2016.

*International Workshop on Applied Probability* in Toronto, Ontario, June 20-23 2016.

*Southern Ontario Graduate Mathematics and Statistics Conference* at The University of Guelph, June 13-14 2016.

*Canadian Applied and Industrial Mathematics Society* at Wilfred Laurier University, June 7 - 12 2015.

*Algorithms and Complexity in Mathematics, Epistemology, and Science* at Western University, May 6-8 2015.  
Organizers: Rob Corless, Chris Smeenk

*Biomath Days* at The University of Ottawa, May 1-2 2014. Organizers: Robert Smith?

## Areas of Competency

Applied Mathematics: Calculus, Linear Algebra, ODE, PDE, Optimization, Numerical Analysis, Classical Mechanics, Real & Complex Analysis, Mathematical Biology

Applied Statistics: Regression, Classification, Clustering, Statistical Modelling, Variable Selection, Statistical Computing

## Technical Languages

Python, R, MATLAB, SQL, Maple, SAS

## Teaching Experience

Teaching Assistant at The University of Waterloo

AM 250 (Introduction to Differential Equations) Spring 2015

AM 250 (Introduction to Differential Equations) Winter 2015

MATH 119 (Engineering Calculus II) Winter 2015

MATH 116 (Engineering Calculus I) Fall 2014, Fall 2015

MATH 136 (Honors Calculus for Math Students I) Fall 2014

## Employment & Experience

Research Data Scientist at Western Univeristy. March 2017 – September 2017

Data Scientist at AIMIA. September 2016 – February 2017

Data Analyst at Maerospace Corporation. October 2015 – June 2016