

# Demetri Pananos

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## Research Interests

Bayesian statistics, Decision Support, Applied Math & Stats broadly interpreted.

## Education

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

## Memberships

2018-2019 Rotman Institute for Philosophy

## Publications

### *Papers in Refereed Journals*

1. **Pananos, A. D.**, & Lizotte, D. J. Comparisons between hamiltonian monte carlo and maximum a posteriori for a bayesian model for apixaban induction dose & dose personalization. Machine Learning for Healthcare Conference. PMLR, 2020.
2. Wilson, A., Peel, C., Wang, Q., **Pananos, A. D.**, & Kim, R. B. (2019). HLA-DQA1\*05 genotype predicts anti-drug antibody formation and loss of response during infliximab therapy for inflammatory bowel disease. *Alimentary pharmacology & therapeutics*.
3. Gulilat, M., Keller, D., Linton, B., **Pananos, A. D.**, Lizotte, D., Dresser, G. K., Alfonsi, J., Tirona, R.G., Kim, R., Schwarz, U. I. (2019). Drug interactions and pharmacogenetic factors contribute to variation in apixaban concentration in atrial fibrillation patients in routine care. *Journal of Thrombosis and Thrombolysis*, 1-10.
4. **Pananos, A. D.**, Bury, T. M., Wang, C., Schonfeld, J., Mohanty, S. P., Nyhan, B., Salathé, M., Bauch, C. T. 2017. Critical dynamics in population vaccinating behavior. *Proceedings of the national academy of sciences*.
5. 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.
6. 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.

## Awards

1. 2019 NumFocus New Contributor Award. This award recognizes members of the community who have made substantial contributions to open source projects. I was awarded this for contributing differential equation capabilities in PyMC3.

## 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.

## Poster Presentations

1. London Health Research Day, April 30 2019, London Ontario Canada.

## Attended Conferences

*Machine Learning For HealthCare* Virtual Conference, August 7-8 2020.

*Statistical Inference, Learning and Models in Data Science* at The Fields Institute, September 24 - 27 2018.

*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: Bayesian Modelling, Regression, Classification, Clustering, Statistical Modelling, Statistical Computing

## Technical Languages

Python, R, Stan, SQL, Maple

## Teaching Experience

### Teaching Assistant at Western University

BIOSTAT 9510A (Biostatistical Research Methods) Fall 2018

BIOSTAT 3110A (Multivariable Methods) Winter 2019

COMPSCI 9637A (Introduction to Data Science) Fall 2019, Winter 2020, Fall 2020

### 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

Last updated: November 12, 2020