Peter C. Jentsch
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1-82 Ahrens St. West,
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Education

PhD Candidate, Applied Mathematics — 09/2016 - 06/2021 (expected)
University of Waterloo

Honours Bachelors of Mathematics — 09/2011 - 08/2016
University of Waterloo

Research Interests: Mathematical models of ecological and biological systems, dynamical systems generally, complex networks, scientific and high-performance computing, data visualization.

Journal Publications

Jentsch PC, Anand M, Bauch CT. Prioritising covid-19 vaccination in changing social and epidemiological landscapes. medRxiv. 2020 Jan 1. *Accepted, Lancet Infectious Diseases*

Jentsch PC, Bauch CT, Yemshanov D, Anand M. Go big or go home: A model-based assessment of general strategies to slow the spread of forest pests via infested firewood. PloS one. 2020 Sep 15;15(9):e0238979.

Jentsch PC, Anand M, Bauch CT. Spatial correlation as an early warning signal of regime shifts in a multiplex disease-behaviour network. Journal of theoretical biology. 2018 Jul 7;448:17-25.

Pedro SA, Ndjomatchoua FT, **Jentsch P**, Tchuenche JM, Anand M, Bauch CT. Conditions for a Second Wave of COVID-19 Due to Interactions Between Disease Dynamics and Social Processes. Frontiers in Physics. 2020 Oct 9;8.

Rao CJ, Liu JE, Dong JH, **Jentsch PC**. Hybrid multi-attribute decision making method of electric coal procurement in industry. Fuzzy Information and Engineering. 2014 Dec 1;6(4):451-62.

Submitted

Jentsch PC, Anand M, Bauch CT. Fire Mitigates Bark Beetle Outbreaks in Serotinous Forests. Under Review.

Conference Publications

Jentsch PC, Nehaniv CL. Analysis of Tetris as a Transformation Semigroup. *Accepted, proceedings of AMMCS2019*

Jentsch PC, Boukhtouta A. A Simulation Study Of Military Land Equipment Availability Under Corrective And Preventive Maintenance Regimes. In ECMS 2015 (pp. 373-379).

Boukhtouta A, **Jentsch P**. Support Vector Machine for Demand Forecasting of Canadian Armed Forces Spare Parts. In 2018 6th International Symposium on Computational and Business Intelligence (ISCBI) 2018 Aug 27 (pp. 59-64). IEEE.

Conference Presentations

Oral Communicatons

SMB Mathematical Epidemiology 02/2021
Prioritizing COVID-19 Vaccination in Changing Social and Epidemiological Landscapes

Invited speaker, Joint Mathematics Meeting 2021, Washington D.C. 01/2021
Prioritizing COVID-19 Vaccination in Changing Social and Epidemiological Landscapes

The Vth AMMCS International Conference, Wilfred Laurier University 08/2019
Tetris As An Introduction to Krohn-Rhodes and Semigroup Theory

The Vth AMMCS International Conference, Wilfred Laurier University 08/2019
Fire Mediates Bark Beetle Outbreaks in Serotinous Forests

Poster Presentations

SMB 2019, Université de Montréal 07/2019
Fire Mediates Bark Beetle Outbreaks in Serotinous Forests

CSEE 2018, University of Guelph 07/2018
Fire Mediates Bark Beetle Outbreaks in Serotinous Forests

Interdisciplinary Conference on Resilience in Complex Natural and Human Systems, WICI University of Waterloo 05/2017
Spatial correlation as an early warning signal of regime shifts in a multiplex disease-behaviour network (award for best student poster)

Teaching

Lecturer, Introductory Calculus for Engineering (Math 116) 09/2020 - 12/2020

Teaching Assistant for introductory calculus, algebra, differential equations, mathematical biology, etc. 09/2016 - Present

Other Employment

NSERC Undergraduate Student Research Award — 09/2015 - 12/2015
Department Of Applied Mathematics, University Of Waterloo

Research Assistant — 05/2015 - 08/2015
Defence Research and Development Canada, Toronto, Ontario

Research Internship — 09/2014 - 12/2014
Institute Of Systems Science, National University of Singapore, Singapore

Time Series Analysis/Operations Research — 01/2014 - 04/2014
Defence Research and Development Canada, Ottawa, Canada

Academic service

Reviewer for PLOS One — 04/2018