

Canadian Centre for Disease Modelling

Distinguished Lecture Series

Modeling and Control of Infectious Diseases

COVID-19: Opinion Dynamics and Economics



Dr. Rebecca C. Tyson

University of British Columbia Okanagan

Thursday October 1, 2020

10:30 am – 11:30 am (Eastern Time)

Webinar: Connect at <https://yorku.zoom.us/j/99459742714?pwd=RXo1NjRlZE1CZzlmUE1T3YzdEdsdz09>
Also see announcement at cdm.yorku.ca

Abstract: Disease dynamics are intricately linked with opinion dynamics. This statement is especially true for a disease like COVID-19 which is easily transmitted and for which the only options for protection are behavioural (masks, physical distancing, etc.). In this talk, I will present a model for opinion dynamics, and couple it with disease dynamics to see how the two processes affect each other. Finally, as voluntary behavioural change has proved insufficient for controlling this pandemic, we will look at the question of enforced behavioural change via economic shutdowns, and the associated costs.

Bio: Rebecca Tyson is a Professor of Mathematics at the University of British Columbia (UBC) Okanagan in Kelowna, BC. Her work lies mainly in the area of theoretical ecology, specifically population dynamics and dispersal of populations in variable landscapes. She has worked on questions related to predator-prey cycles, mountain pine beetle dispersal, pollination services of honeybees, and human-bear interactions in interface communities like Whistler, BC. The models she uses include ordinary and partial differential equations, as well as individual-based computational models. Recently, she has become interested in the dynamical interface between ecology and human opinions, as the latter is a critical component of conservation work in the former. The ecology/opinion dynamics interface is closely linked to the epidemiology/opinion dynamics interface, and so this second interface has emerged as an important thread in Dr. Tyson's work.

Panelists: Julien Arino (U Manitoba), Jacques Belair (U Montreal), Jane Heffernan (YorkU), Jude Kong (York U), Michael Li (U Alberta), Junling Ma (U Victoria) James Watmough (U NewBrunswick), Huaiping Zhu (York U)

Organizers: Canadian Centre for Disease Modeling (CCDM)

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