Centre for Disease Modelling Canada-China Distinguished Lecture Mathematics and COVID-19

From the Black Death to COVID-19: Analyzing the past and

forecasting the future

With

Dr. David Earn

Mathematics & Statistics, McMaster University

Friday July 10, 2020 8:30 pm – 9:30 pm (Eastern Time)



Abstract: Historical records allow us to reconstruct patterns of disease spread during a number of previous pandemics, in some cases going back hundreds of years. Mathematical models allow us to make mechanistic inferences about the pathogens responsible for disease outbreaks, and the populations they infected. I will discuss research we have done on pandemics of plague, cholera, and influenza in the past, and how COVID-19 presents some of the same, and some different, challenges.

David Earn was born and raised in Winnipeg, Canada, and was an undergraduate in Mathematics at UToronto. He obtained his PhD from UCambridge, UK, where his research involved application of mathematics to theoretical astrophysics. During his postdoctoral years he became interested in applying math to biological problems and soon shifted focus entirely to biology, especially the epidemiology of infectious diseases. Dr. Earn is currently a Professor of Mathematics & Statistics at McMasterU, where he has been since Jan 2000. He is a recipient of a CIHR New Investigator Award, an Ontario Premier's Research Excellence Award and a J.S. McDonnell Foundation Research Award. More information can be found at websites davidearn.mcmaster.ca and www.sciencemag.org/careers/2004/02/one-persons-path-mathematical-biology.

Panelists: J.Arino (UManitoba), J Belair (UMontreal), J Cui (BeijingUCivilEng&Archit), M Fan (NENormalU), J Heffernan (YorkU), Z Jin (ShanxiU), M Li (UAlberta), W Lin (FudanU), W Wang (SouthwestU), J Watmough (UNewBrunswick), Y Xiao (XianJiaotong U), H Zhu (YorkU)

Organizers: Centre for Disease Modeling (CDM), Chinese Society for Mathematical Biology (CSMB)





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