

Data Science and Machine Learning Seminar Series

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Virtual Presentation: <https://purdue.webex.com/meet/aselvite>

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Characterizing the Dynamic of COVID-19 with a New Epidemic Model

The mystery of the coronavirus disease 2019 (COVID-19) and the lack of effective treatment for COVID-19 have presented a strikingly negative impact on public health. While research on COVID-19 has been ramping up rapidly, a very important yet somewhat overlooked challenge is on the quality and unique features of COVID-19 data. The manifestations of COVID-19 are not yet well understood. The swift spread of the virus is largely attributed to its stealthy transmissions in which infected patients may be asymptomatic or exhibit only flu-like symptoms in the early stage. Due to the limited test resources and a good portion of asymptomatic infections, the confirmed cases are typically under-reported, error-contaminated, and involved with substantial noise. In this talk, I will discuss some issues related to faulty COVID-19 data and present a new model to describe the dynamic evolution of COVID-19. In addition, I will mention a website of COVID-19 Canada (<https://covid-19-canada.uwo.ca/>), developed by the team co-led by Dr. Wenqing He and myself, which provides a comprehensive and real-time visualization of the Canadian COVID-19 data.

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