MATH COLLOQUIUM SERIES

School of Mathematical Sciences Universiti Sains Malaysia



## MULTISCALE MODELLING OF INFECTIOUS DISEASES: AN APPLICATION TO COVID-19 DYNAMICS



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() 10:00-11:00 AM (Malaysia time)

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Abstract. Multiscale modeling of infectious diseases is an approach that integrates data and knowledge from different scales of biological organization to understand the spread of infections. In the context of the COVID-19 pandemic, multiscale modeling has played an important role in helping researchers and public health officials understand the complex dynamics of the disease. This talk will provide an overview of multiscale modeling and its application to COVID-19, including an example of a model that has been used to study viral replication, immune response, and transmission dynamics. The talk will also discuss some of the challenges and limitations of these models, and highlight potential applications for controlling and preventing infectious diseases in the future.

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