DEPARTMENT OF MATHEMATICS
THE CHINESE UNIVERSITY OF HONG KONG

Center for Mathematical Artificial Intelligence
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MATH-IMS Joint Applied Mathematics Colloquium Series
The Chinese University of Hong Kong

This MATH-IMS Joint Colloquium Series is organized by Center for Mathematical Artificial Intelligence (CMAI), under Department of Mathematics and Institute of Mathematical Sciences (IMS) at The Chinese University of Hong Kong. The colloquium series focuses on mathematics and applications of artificial intelligence, big data and related topics.

Date: April 26 (Friday)
Location and Time: Lady Shaw Building 222
2:00pm-3:00pm (Hong Kong Time)

A Model of Phone Dating App Use and Resulting Increase of Sexually Transmitted Infections

Speaker: Professor Fabio Augusto Milner
Arizona State University

Abstract: Between 2014-2019, male and female incidence of STIs has increased 62.8% and 21.4%, with 68 million Americans contracting STIs in 2018. Some human behaviors leading to increased STI incidence are unprotected sex and multiple sexual partners. Increasing phone dating app usage has been related to increases in these behaviors. Our study quantifies the impact of dating apps on STI incidence and prevalence utilizing a two-sex SIS model and it assesses the impact that in-app and other campaigns targeted at reducing risky behaviors may have on controlling incidence.

Bio: Prof. Fabio Augusto Milner is currently the director of Simon A. Levin Mathematical, Computational and Modeling Sciences Center, Arizona State University. He received his Ph.D. at the University of Chicago in 1983. He was a Full Professor at Purdue University before joining ASU in 2008 as Professor and Director of Mathematics for STEM Education. He served as Associate Dean of Graduate Initiatives in The College of Liberal Arts and Sciences from July 2019 to December 2021, and as (Interim) Assistant Director of the Levin Center from August 2019 until December 2021. His research interests lie in mathematical biology, mathematics education, numerical analysis, applied mathematics, partial differential equations, and dynamical systems. Prof. Milner has received many honors and awards, for example, he was nominated by Provost to the National Science Foundation Directorate and Office Advisory Committee for STEM Education and Governing Board of US Department of Education, was listed in the 2000 Outstanding Intellectuals of the 21st Century, has been the life member of American Mathematical Society and Society for Industrial and Applied Mathematics, etc. He has published three books and nearly 100 journal papers and is on the editorial board for many prestigious journals, such as Mathematical Biosciences and Engineering, Mathematical Population Studies.