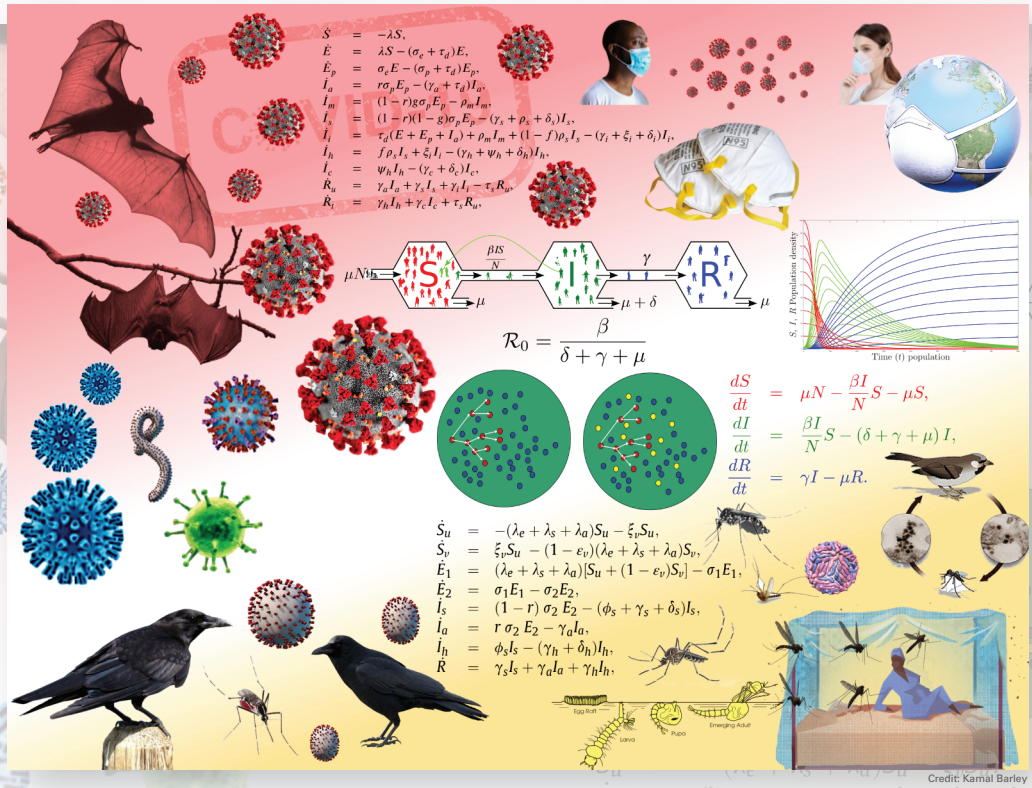
The American Mathematical Society Presents

The 2021 AMS Einstein Public Lecture in Mathematics

ABBA GUMEL
ARIZONA STATE UNIVERSITY

Mathematics of Infectious Diseases



Credit: Kamal Barley


Credit: Rhonda Olson (Marketing and Communications, Arizona State University)

SATURDAY, MARCH 20
1:30–2:30 PM EDT
(10:30–11:30 AM PDT)

In conjunction with the AMS Spring Eastern Sectional Meeting, the lecture takes place online.

Mathematics has historically been used as a vital tool for providing insight and understanding on the mechanisms of the spread, control, and mitigation of emerging and re-emerging infectious diseases, dating back to the pioneering works of Daniel Bernoulli (on modeling the potential impact of a smallpox vaccine) in the 1760s and the compartmental modeling frameworks of the likes of William Kermack, Anderson McKendrick, and Sir Ronald Ross in the early 1900s. This lecture will address some of the mathematical techniques and theories used to formulate, parametrize, and analyze mathematical models for the transmission dynamics and control of infectious diseases.

In this public lecture, Gumel will emphasize discussion on infectious diseases that continue to inflict major public health and socio-economic challenges to humankind, including the ongoing novel 2019 coronavirus pandemic.

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Event details:
http://www.ams.org/meet-einstein-lect