
ABBA GUMEL, University of Manitoba
Dynamics Analysis of HIV Vaccine Models

Since its emergence in the 1980s, the human immunodeficiency syndrome (HIV) continues to inflict major public health and socio-economic burdens globally. Currently, 34–46 million people live with HIV and over 20 million have so far died of the disease. Although the use of anti-retroviral therapy (ART) has been quite effective in slowing HIV spread in some nations, it is generally believed that the global control of the HIV pandemic would require a vaccine. Thankfully, a number of candidate vaccines are currently undergoing various stages of clinical trials . . . and there is a need to qualitatively analyse their potential impact. This talk will focus on designing and analysing HIV vaccine models, which incorporate some of the key biological features of HIV and expected vaccine characteristics, to assess the potential impact of an imperfect vaccine in combatting the HIV pandemic.