ICTS Statistical Physics Journal Club Seminar

Title : Understanding the basic reproduction number via branching process

Speaker : Sujit Kumar Nath (University of Leeds)

Date : Wednesday, 30th September 2020

Time : 03:00 pm (IST)

Abstract : Branching process is a random process having many applications in physics, biology and social sciences. I shall give a brief introduction to branching processes, and how the generating function method is used to study them. Then I shall introduce how the propagation of infectious disease in a population can be modelled as a branching process. The average number of newly created infections, by an existing infected individual, is known as the basic reproduction number (R0). R0 is the predictor parameter to determine whether an infection in a population will increase or decrease over time. I shall relate the concept of R0 with the branching process perspective of infection dynamics, and explain why this parameter determines the fate of the infection in the population.

Venue : Online Seminar

Please click on the below link to join the zoom meeting
https://zoom.us/j/99451093618?pwd=QVRIczZRRGo2c2hqckpTV2FhVzljQT09
Meeting ID: 994 5109 3618
Passcode: 208363