

ICTS-NCBS Dynamic Friday

Title : Frustration and fidelity in influenza genome assembly

Speaker : Mukund Thattai, (National Center For Biological Sciences)

Date : Friday, December 6, 2019

Time : 4:00 PM

Venue : ICTS (Ramanujan Lecture Hall)

Abstract: The genome of the influenza virus consists of eight distinct

single-stranded RNA segments, each encoding proteins essential for the viral life cycle. When the virus infects a host cell, these segments must be replicated and packaged into new budding virions. The viral genome is assembled with remarkably high fidelity: experiments reveal that most virions contain precisely one copy of each of the eight RNA segments. We use ideas from graph theory and self-assembly theory to

figure out how the virus is able to achieve this.

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