



Department of  
Theoretical Physics

# Tata-Infosys Lecture Series

## A modern take on the information paradox and progress towards its resolution

**Ahmed Almheiri**  
(IAS Princeton)

**Date / Time / Venue**  
**(UPDATED)**

25 Sep 2019, 10:00 AM  
A-304

26 Sep 2019, 10:00 AM  
AG-66

27 Sep 2019, 10:00 AM  
AG-66



This lecture series will focus on recent progress addressing Hawking's black hole information paradox. I will review previous attempts of resolving this paradox and how it led to ideas of firewalls at the horizon, state dependence of the interior, and  $ER = EPR$ . I will present recent work demonstrating how holography can be used to reproduce the Page curve of an evaporating black hole, and present the first model of unitary black hole evaporation that is semiclassical throughout. Finally, I will discuss some ongoing work which derives these results more generally.