



**School of Mathematics**  
**Tata Institute of Fundamental Research**

25 June, 2024

### VV 2024 Colloquium

Speaker : *Charanya Ravi*  
Affiliation : *TIFR, Mumbai*  
Title : *Geometry and Invariants*  
Date & Time : *Thursday, 04 July, 2024 at 4:00 pm*  
Venue : **Lecture Theatre (AG-66)**

#### **Abstract**

This talk is a gentle introduction to the subject of algebraic topology, which studies topological spaces using algebraic objects. We will introduce a basic numerical invariant of topological spaces called the Euler characteristic and motivate the definition of homology groups. In general, invariants can be hard to compute even for simple topological spaces. Time permitting, we will discuss two important strategies for computation: localization and symmetry.

  
Milind Pilankar