



**ST JOSEPH'S  
UNIVERSITY**  
BENGALURU . INDIA

DEPARTMENT OF  
MATHEMATICS

## DEPARTMENT COLLOQUIUM

### INTRODUCTION TO GEOMETRIC GROUP THEORY: HYPERBOLIC GROUPS

**ABSTRACT:** Geometric group theory is the study of groups by associating geometric objects to it. Given a finitely generated group, one can associate a metric space to it, its Cayley graph. When the Cayley graph of a group has a negative curvature, it called a Gromov hyperbolic group. In this talk, we will look at Gromov hyperbolic groups and some of their interesting properties.



**Dr. Swathi Krishna**  
Post Doctoral Fellow  
TIFR Centre for Applicable  
Mathematics, Bangalore

***Date: September 17, 2025 (Wednesday)***

***Time: 3:00 pm***

***Venue: PG 108***