

Mini -Course on **A brief introduction to Bruhat–Tits theory**

Speaker: Gopal Prasad

Abstract:

We describe some of the main ideas of the Bruhat–Tits theory. I will follow my recent book "Bruhat–Tits theory: a new approach" written with Tasho Kaletha. In this course, detailed proofs will have to be omitted due to constraint of time.

Bruhat–Tits theory is required to study reductive groups over p -adic fields. It is being used in the representation theory of, and harmonic analysis on, these groups in a serious way. It has also been used in other contexts, for example in the study of arithmetic groups, cohomological computations.....

The prerequisites for the course are a knowledge of Galois theory, familiarity with fields with non-archimedean valuations, and a good understanding of the theory of algebraic groups (over not necessarily algebraically-closed fields), for example, as given in Armand Borel's book "Linear Algebraic Groups".

Schedule: March 2, 4, 6, 11, 13 and 16 at 11 a.m. The lectures are scheduled for 90 minutes.