



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

16 November, 2022

**NOTICE**

- Speaker : *Yashonidhi Pandey*  
Affiliation : *IISER Mohali*  
Title : *Bruhat-Tits theory over a smooth higher dimensional base*  
Date & Time : *Wednesday, 23 November, 2022, 11:00-12:00 PM (Via Zoom)*

**Abstract**

We report on a joint work with Vikraman Balaji. It addresses the following question:

Let  $G$  be an almost simple, split, simply connected Chevalley group scheme over  $\mathbb{Z}$ . Let  $\mathbb{A}^\circ$  denote the complement of the “axes” in  $\mathbb{A}_k^n$ , and let  $U$  be its union with  $\text{Spec}$  of DVRs which are the local rings at the generic points of the axes in  $\mathbb{A}_k^n$ . Given BT group schemes adapted to the axis divisors of  $\mathbb{A}_k^n$ , using the identity function, we glue them with  $G \times \mathbb{A}^\circ$  to get a group scheme on  $U$ . Does it extend to the whole space  $\mathbb{A}_k^n$ ?

Milind Pilankar