



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

## Mathematics Colloquium

Speaker : *Hengfei Lu*  
Affiliation : *TIFR, Mumbai*  
Title : *The Prasad conjecture for  $PGSp(4)$*   
Date & Time : *Thursday, 16 November, 2017 at 04.00 p.m.*  
Venue : *Lecture Room (AG-69)*

### **Abstract**

Period Problem is one of the most popular interesting problems in recently years, such as the Gan-Gross-Prasad conjectures. In this talk, we mainly focus on the local period problems, so called the relative local Langlands programs. Given a quadratic local field extension  $E/F$  and a quasi-split reductive group  $G$  defined over  $F$  with associated quadratic character  $\chi_G$ , let  $\pi$  be a smooth representation of  $G(E)$ . Assume the Langlands-Vogan conjecture, Prof. Prasad gives a precise description for the dimension  $\dim \text{Hom}_{G(F)}(\pi, \chi_G)$ . We verify this conjecture if  $\pi$  is a discrete series representation and  $G = PGSp(4)$ .

Vivek V. Vengurlekar

November 10, 2017