School of Mathematics
Tata Institute of Fundamental Research

Mathematics Colloquium

Speaker	:	***Laurent Fargues***
Affiliation	:	***Institut de Mathématiques de Jussieu, France***
Title	:	***p-adic symmetric spaces***
Date & Time	:	***Thursday, 21 December, 2017 at 04.00 p.m.***
Venue	:	***Lecture Room (AG-69)***

Abstract

In his ICM talk in Nice in 70 Grothendieck asked what is the image of the p-adic analog of Griffith's period mapping as a subset of a flag variety? We now can give an answer by interpreting those period mappings in terms of modifications of vector bundles on the curve (a p-adic analog of Simpson's Twistor structures). I will explain a recent result obtained jointly with Miaofen Chen and Xu Shen that allows us to compute those period spaces in some particular cases. For example we can compute the p-adic period space for polarized $K3$ surfaces with supersingular reduction.

Vivek V. Vengurlekar

December 15, 2017