

SCMS Seminar



MONTHLY NUMBER THEORY WEEK: MAY

GOREN-OORT STRATIFICATION OF QUATERNIONIC SHIMURA

VARIETIES AND APPLICATIONS

Prof. Yichao Tian

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Title: Goren-Oort stratification of Quaternionic Shimura varieties and applications

Abstract: Let F be a totally real field and p is a prime unramified in F . Consider the special fiber of a quaternionic Shimura variety X associated to a quaternion algebra over F split at all places above p . We will first define the Goren-Oort stratification of X , and show that each Goren-Oort stratum is an iterated P^1 -bundle over the special fiber of another quaternionic Shimura variety. This explicit description has some applications to the classicality of over-convergent Hilbert modular forms and the Tate conjecture for Hilbert modular varieties over a finite field. This is a joint work with Liang Xiao.

Lecture 1

Time: 2:00-3:00 pm., Thursday, May 7, 2015

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Lecture 2

Time: 3:30-4:30 pm., Thursday, May 7, 2015

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Lecture 3

Time: 2:00-3:00 pm., Friday, May 8, 2015

Venue: Room 2201, East Main Guanghua Tower, Handan Campus