

AS-NCTS Special Lecture Series on Arithmetic Geometry

Speaker:

Professor Jean-Marc Fontaine
(Université Paris-Sud)



Title: p -adic Hodge theory via the mysterious curve

Time: 10:00-12:00, October 12, 16, 19, 26, 2018

Venue: Auditorium, 6 Floor, Astro-Math Building

Abstract:

I will introduce the fundamental curve of p -adic Hodge theory constructed by Laurent Fargues and myself. I will explain the construction and main properties of this curve, and describe the classification of vector bundles on the curve. As applications, I will show how one can use this curve

- (a) to introduce hierarchy of p -adic representations of the absolute Galois group of G_K of a p -adic field K , and
- (b) to prove the main results of the arithmetic part of p -adic Hodge theory giving rise to a complete classification of the so called de Rham representations.

Organizer: Chia-Fu Yu (Academia Sinica)