SEMPARIS – Séminaires en région parisienne

http ://string.lpthe.jussieu.fr/semparis/

TBA

Mercredi 8 Novembre 2017, 10 :00
IHES, Centre de conférences Marilyn et James Simons(Séminaire de Géométrie Arithmétique Paris-Pékin-Tokyo)
Domaines : hep-th

Titre : *Iwasawa theory and Bloch-Kato conjecture for modular forms*

Orateur : **X. Wan (Morningside Center for Mathematics)**

Résumé : *Bloch and Kato formulated conjectures relating sizes of p-adic Selmer groups with special values of L-functions. Iwasawa theory is a useful tool for studying these conjectures and BSD conjecture for elliptic curves. For example the Iwasawa main conjecture for modular forms formulated by Kato implies the Tamagawa number formula for modular forms of analytic rank 0. In this talk I'll first briefly review the above theory. Then we will focus on a different Iwasawa theory approach for this problem. The starting point is a recent joint work with Jetchev and Skinner proving the BSD formula for elliptic curves of analytic rank 1. We will discuss how such results are generalized to modular forms. If time allowed we may also explain the possibility to use it to deduce Bloch-Kato conjectures in both analytic rank 0 and 1 cases. In certain aspects such approach should be more powerful than classical Iwasawa theory, and has some potential to attack cases with bad ramification at p.*