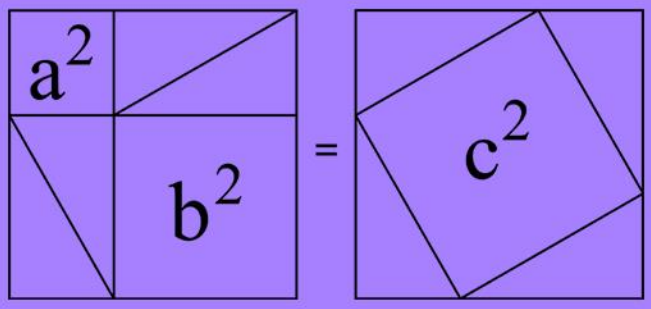
Hiver 2017



Galois module structure of Lubin-Tate modules

Séminaire gradué d'algèbre et de géométrie

Conférencier: Sebastian Tomaskovic-Moore

University of Pennsylvania

Date, heure et endroit

Vendredi 17 février 2017

14h30

VCH-2810

Résumé

The classical theory of additive Galois modules concerns a finite extension L/K of global fields. Write G for the Galois group of this extension. The the ring of integers O_L of L is a module for O_K with an O_K-linear action of G. The central problem is to find the structure of O_L as a module over the group ring O_K[G]. We also find a structure of O_K[G] module when we replace O_L with the group of points in L of a Lubin-Tate formal group defined over O_K. For this new Galois module, we can prove analogues of classical results like the normal basis theorem. We also prove certain cases of E. Noether's result on normal integral bases for tame extensions. Finally, for wild extensions we define an analogue of Leopoldt's associated order and demonstrate that it is in general larger than the integral group ring.

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