
Seminar des SFB/TRR 326 GAUS

Freitag, 12.07.2024

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spricht über das Thema

On a characterisation of perfectoid fields by Iwasawa theory

With a p -adic representation of the Galois group of a p -adic field are associated the Bloch-Kato groups defined via p -adic Hodge theory. Iwasawa theory motivates the study of these Bloch-Kato groups over infinite algebraic extensions of the field of p -adic numbers.

Over perfectoid fields, several results (by Coates–Greenberg, Perrin–Riou, Berger, P. . . .) state that the Bloch–Kato groups admit a simple description.

In this talk, we will present a reciprocal statement: the structure of the Bloch–Kato groups associated with certain crystalline representations characterises the algebraic extensions of the field of p -adic numbers whose completion are perfectoid fields. In particular, we will recover, via a different method, results by Coates and Greenberg for abelian varieties, and by Bondarko for p -divisible groups.

Ort: **INF 205, SR A**

Beginn: **13:30 Uhr**

Alle Interessenten sind herzlich eingeladen.

Dr. Rustam Steingart