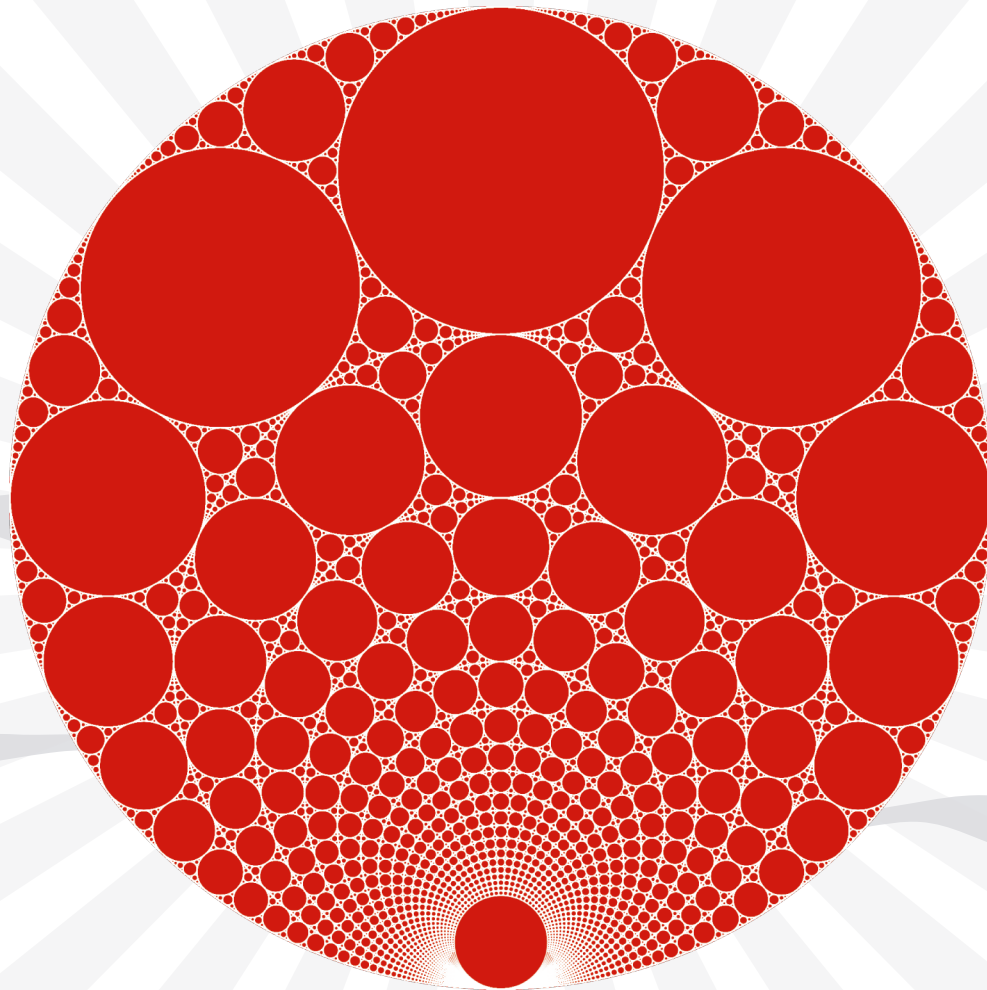




TEORÍA DE Iwasawa

Agosto 13-17 de 2018



$$Cl(\mathbb{Q}(\zeta_{691}))[691^\infty] \cong (\mathbb{Z}/691)^2$$

Sobre el evento

The aim of the summer school is to provide an introduction to the theme of “the (Iwasawa) main conjecture”, one of the deepest and most beautiful known result about the arithmetic of cyclotomic fields. It is the simplest example of a vast array of subsequent, unproven “main conjectures” in modern arithmetic geometry involving the arithmetic behaviour of motives over p-adic Lie extensions of number fields. These main conjectures are concerned with what one might loosely call the exact formulae of number theory which conjecturally link the special values of zeta- and L-functions to purely arithmetic expressions (the most basic example being the class number formula).

Iwasawa himself not only discovered the main conjecture but proved an important theorem which implies it in all known numerical cases. In this workshop, we follow this approach to the main conjecture via Iwasawa’s theorem, and - if time permits - complete its proof by the ingenious arguments using Euler systems, due to Kolyagin, Rubin and Thaine. This treatment also gives a very simple proof of the existence of the p-adic analogue of the Riemann zeta function using Coleman power series and cyclotomic units.

The summer school is intended for students with interest in algebraic number theory and p-adic methods.

Conferencistas

- **Yamidt Bermúdez ***
Universidad del Valle - Colombia
- **Cornelius Greither**
University of Munich - Alemania
- **Guillermo Mantilla-Soler**
- **Sujatha Ramdorai**
University of British Columbia - Canadá
- **Peter Schneider**
University of Münster - Alemania
- **Otmar Venjakob**
University of Heidelberg - Alemania

* to be confirmed