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Collana	Contributions in Mathematical and Computational Sciences, , 2191-303X ; ; 7
Disciplina	512.3
Soggetti	Number theory Algebraic geometry K-theory Topological groups Lie groups Algebra Functions of complex variables Number Theory Algebraic Geometry K-Theory Topological Groups, Lie Groups Functions of a Complex Variable
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The great interest in Iwasawa Theory is reflected by the highly successful bi-annual series of international conferences, starting in 2004 in Besancon and continuing in Limoges, Irsee and Toronto with a scientific committee formed by John Coates, Ralph Greenberg, Cornelius Greither, Masato Kurihara, and Thong Nguyen Quang Do"-- Preface.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Lecture notes: C. Wuthrich: Overview of some Iwasawa theory -- X. Wan: Introduction to Skinner-Urban's work on the Iwasawa main conjecture for GL -- Research and Survey articles: D. Benois: On extra zeros of p-adic L-functions: the crystalline case -- Th. Bouganis: On special L-values attached to Siegel modular forms -- T. Fukaya et al:

Modular symbols in Iwasawa theory -- T. Fukuda et al: Weber's class number one problem -- R. Greenberg: On p-adic Artin L-functions II -- M.-L. Hsieh: Iwasawa -invariants of p-adic Hecke L-functions -- S. Kobayashi: The p-adic height pairing on abelian varieties at non-ordinary primes -- J. Kohlhaase: Iwasawa modules arising from deformation spaces of p-divisible formal group laws -- M. Kurihara: The structure of Selmer groups for elliptic curves and modular symbols -- D. Loeffler: P-adic integration on ray class groups and non-ordinary p-adic L-functions -- T. Nguyen Quang Do: On equivariant characteristic ideals of real classes -- E. Urban: Nearly over convergent modular forms -- M. Witte: Non-commutative L-functions for varieties over finite fields -- Z. Wojtkowiak: On $\widehat{\mathbb{Z}}$ -zeta function.

Sommario/riassunto

This is the fifth conference in a bi-annual series, following conferences in Besancon, Limoges, Irsee and Toronto. The meeting aims to bring together different strands of research in and closely related to the area of Iwasawa theory. During the week before the conference in a kind of summer school a series of preparatory lectures for young mathematicians was provided as an introduction to Iwasawa theory. Iwasawa theory is a modern and powerful branch of number theory and can be traced back to the Japanese mathematician Kenkichi Iwasawa, who introduced the systematic study of \mathbb{Z}_p -extensions and p-adic L-functions, concentrating on the case of ideal class groups. Later this would be generalized to elliptic curves. Over the last few decades considerable progress has been made in automorphic Iwasawa theory, e.g. the proof of the Main Conjecture for $GL(2)$ by Kato and Skinner & Urban. Techniques such as Hida's theory of p-adic modular forms and big Galois representations play a crucial part. Also a noncommutative Iwasawa theory of arbitrary p-adic Lie extensions has been developed. This volume aims to present a snapshot of the state of art of Iwasawa theory as of 2012. In particular it offers an introduction to Iwasawa theory (based on a preparatory course by Chris Wuthrich) and a survey of the proof of Skinner & Urban (based on a lecture course by Xin Wan).
