

1. Record Nr.	UNINA9910786510103321
Autore	Rubin Karl
Titolo	Euler systems // by Karl Rubin
Pubbl/distr/stampa	Princeton, New Jersey ; ; Chichester, England : , : Princeton University Press, , 2000 ©2000
ISBN	0-691-05075-9 1-4008-6520-4
Descrizione fisica	1 online resource (241 p.)
Collana	Annals of Mathematics Studies ; ; Number 147
Disciplina	512/.74
Soggetti	Algebraic number theory p-adic numbers
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- Acknowledgments / Rubin, Karl -- Introduction -- Chapter 1. Galois Cohomology of p-adic Representations -- Chapter 2. Euler Systems: Definition and Main Results -- Chapter 3. Examples and Applications -- Chapter 4. Derived Cohomology Classes -- Chapter 5. Bounding the Selmer Group -- Chapter 6. Twisting -- Chapter 7. Iwasawa Theory -- Chapter 8. Euler Systems and p-adic L-functions -- Chapter 9. Variants -- Appendix A. Linear Algebra -- Appendix B. Continuous Cohomology and Inverse Limits -- Appendix C. Cohomology of p-adic Analytic Groups -- Appendix D. p-adic Calculations in Cyclotomic Fields -- Bibliography -- Index of Symbols -- Subject Index
Sommario/riassunto	One of the most exciting new subjects in Algebraic Number Theory and Arithmetic Algebraic Geometry is the theory of Euler systems. Euler systems are special collections of cohomology classes attached to p-adic Galois representations. Introduced by Victor Kolyvagin in the late 1980's in order to bound Selmer groups attached to p-adic representations, Euler systems have since been used to solve several key problems. These include certain cases of the Birch and Swinnerton-Dyer Conjecture and the Main Conjecture of Iwasawa Theory. Because Selmer groups play a central role in Arithmetic Algebraic Geometry,

Euler systems should be a powerful tool in the future development of the field. Here, in the first book to appear on the subject, Karl Rubin presents a self-contained development of the theory of Euler systems. Rubin first reviews and develops the necessary facts from Galois cohomology. He then introduces Euler systems, states the main theorems, and develops examples and applications. The remainder of the book is devoted to the proofs of the main theorems as well as some further speculations. The book assumes a solid background in algebraic Number Theory, and is suitable as an advanced graduate text. As a research monograph it will also prove useful to number theorists and researchers in Arithmetic Algebraic Geometry.
