ADVANCED STUDIES
IN PURE MATHEMATICS  63

Chief Editor of the Series:  Takayuki Oda (Univ. of Tokyo)

Galois–Teichmüller Theory
and Arithmetic Geometry

Edited by
Hiroaki Nakamura (Okayama University)
Florian Pop (University of Pennsylvania)
Leila Schneps (CNRS, University of Paris 6)
Akio Tamagawa (RIMS, Kyoto University)

Mathematical Society of Japan
CONTENTS

Asher Auel — Remarks on the Milnor conjecture over schemes 1
Francis C. S. Brown — On the decomposition of motivic multiple zeta values 31
Sarah Carr and Leila Schneps — Combinatorics of the double shuffle Lie algebra 59
Pierre Cartier — On the double zeta values 91
Scott Corry — Harmonic Galois theory for finite graphs 121
Pierre Dèbes and François Legrand — Twisted covers and specializations 141
Hidekazu Furusho — Geometric interpretation of double shuffle relation for multiple $L$-values 163
Kiichiro Hashimoto and Hiroshi Tsunogai — Noether’s problem for transitive permutation groups of degree 6 189
Yasutaka Ihara — Comparison of some quotients of fundamental groups of algebraic curves over $p$-adic fields 221
Naoki Imai — Dimensions of moduli spaces of finite flat models 251
Pierre Lochak — Results and conjectures in profinite Teichmüller theory 263
Ivan Marin — Galois actions on complex braid groups 337
Andrew Obus — The (local) lifting problem for curves 359
Gereon Quick — Some remarks on profinite completion of spaces 413
Christopher Rasmussen — An abelian surface with constrained 3-power torsion 449
Mohamed Säïdi — Fake liftings of Galois covers between smooth curves 457
Alexander Schmidt — Motivic aspects of anabelian geometry 503
Jakob Stix — On cuspidal sections of algebraic fundamental groups 519
Hiro-o Tokunaga — A note on quadratic residue curves on rational ruled surfaces 565
Kirsten WICKELENREN — $n$-nilpotent obstructions to $\pi_1$ sections of $\mathbb{P}^1 - \{0, 1, \infty\}$ and Massey products 579

Zdzislaw WOJTKOWIAK — Lie algebras of Galois representations on fundamental groups 601

Go YAMASHITA — $p$-adic multiple zeta values, $p$-adic multiple $L$-values, and motivic Galois groups 629

Yuichiro HOSHI and Shinichi MOCHIZUKI — Topics surrounding the combinatorial anabelian geometry of hyperbolic curves I: Inertia groups and profinite Dehn twists 659

Hiroaki NAKAMURA — Some congruence properties of Eisenstein invariants associated to elliptic curves 813