

Contents

Preface	vii
Categorification of the skein module of tangles M. ASAEDA, J. PRZYTYCKI, AND A. SIKORA	1
The double shuffle relations for p -adic multiple zeta values A. BESSER AND H. FURUSHO	9
Galois p -groups unramified at p - A survey N. BOSTON	31
On capitulation theorems for infinite groups K. FULUTA	41
Multiple zeta values and Grothendieck-Teichmüller groups H. FURUSHO	49
Asymptotics of q -difference equations S. GAROUFALIDIS AND J. S. GERONIMO	83
The mapping class group acts reducibly on $SU(n)$ -character varieties W. M. GOLDMAN	115
Pro- p link groups and p -homology groups J. HILLMAN, D. MATEI, AND M. MORISHITA	121
A quantum introduction to knot theory H. MURAKAMI	137
Classical knot invariants and elementary number theory K. MURASUGI	167
Harmonic and equianharmonic equations in the Grothendieck-Teichmüller group, II H. NAKAMURA AND H. TSUNOGAI	197
On p -adic properties of the Witten-Reshetikhin-Turaev invariant L. ROZANSKY	213
Seiberg-Witten integrable systems and periods of rational elliptic surfaces Y. SHIMIZU	237
On the finiteness of various Galois representations Y. TAGUCHI	249

Some new-type equations in the Grothendieck-Teichmüller group arising from geometry of $\mathcal{M}_{0,5}$ H. TSUNOGAI	263
--	-----