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Sommario/riassunto

This book gathers original research papers and survey articles presented at the “International Conference on Class Groups of Number Fields and Related Topics,” held at Harish-Chandra Research Institute, Allahabad, India, on September 4–7, 2017. It discusses the fundamental research problems that arise in the study of class groups of number fields and introduces new techniques and tools to study these problems. Topics in this book include class groups and class numbers of number fields, units, the Kummer–Vandiver conjecture, class number one problem, Diophantine equations, Thue equations, continued fractions, Euclidean number fields, heights, rational torsion points on elliptic curves, cyclotomic numbers, Jacobi sums, and Dedekind zeta values. This book is a valuable resource for undergraduate and graduate students of mathematics as well as researchers interested in class groups of number fields and their connections to other branches of mathematics. New researchers to the field will also benefit immensely from the diverse problems discussed. All the contributing authors are leading academicians, scientists, researchers, and scholars.