Record Nr. UNINA9910153614703321

Autore Neumann Peter M.

Titolo The mathematical writings of Evariste Galois [[electronic resource]]:

Corrected 2nd printing, September 2013 / / Peter M. Neumann

Pubbl/distr/stampa Zuerich, Switzerland, : European Mathematical Society Publishing

House, 2011

ISBN 3-03719-604-1

Descrizione fisica 1 online resource (421 pages)

Collana Heritage of European Mathematics (HEM);, 2523-5214

Classificazione 01-xx20-xx

Soggetti History of mathematics

History and biography

Group theory and generalizations

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto

Although Evariste Galois was only 20 years old when he died, shot in a mysterious early-morning duel in 1832, his ideas, when they were published 14 years later, changed the course of algebra. He invented what is now called Galois Theory, the modern form of what was classically the Theory of Equations. For that purpose, and in particular to formulate a precise condition for solubility of equations by radicals, he also invented groups and began investigating their theory. His main writings were published in French in 1846 and there have been a number of French editions culminating in the great work published by Bourgne & Azra in 1962 containing transcriptions of every page and fragment of the manuscripts that survive. Very few items have been available in English up to now. The present work contains English translations of almost all the Galois material. They are presented alongside a new transcription of the original French, and are enhanced by three levels of commentary. An introduction explains the context of Galois' work, the various publications in which it appears, and the vagaries of his manuscripts. Then there is a chapter in which the five mathematical articles published in his lifetime are reprinted. After that come the Testamentary Letter and the First Memoir (in which Galois expounded the ideas now called Galois Theory), which are the most

famous of the manuscripts. There follow the less well known manuscripts, namely the Second Memoir and the many fragments. A short epilogue devoted to myths and mysteries concludes the text. The book is written as a contribution to the history of mathematics but with mathematicans as well as historians in mind. It makes available to a wide mathematical and historical readership some of the most exciting mathematics of the first half of the 19th century, presented in its original form. The primary aim is to establish a text of what Galois wrote. Exegesis would fill another book or books, and little of that is to be f...