

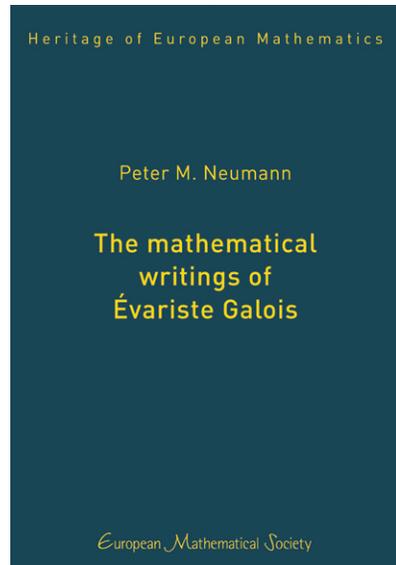
REVIEWS

The Mathematical Writings of Évariste Galois by Peter M. Neumann, Heritage of European Mathematics, European Mathematical Society, 2011, 421 pp, €78, ISBN 978-3-03719-104-0.

In this beautifully presented book, Peter Neumann has given the first systematic English translation of Galois' mathematical writings. Such is the fame of Galois that it is perhaps surprising that only around one third of his writings had previously been available in English. Were it simply a translation, this book would therefore already be useful. But it is much more than that.

Dr Neumann has produced a new French transcription, working with existing transcriptions but checking every word against original publications and manuscripts. This transcription, which renders as accurately as possible all original crossings-out, alterations and so on, is reproduced on the left-hand pages. On the right-hand pages is Dr Neumann's English translation. The bulk of the book is devoted to transcription and translation of the vast majority of Galois' mathematical writings. A few fragmentary calculations are omitted, along with some schoolwork and one letter which is rather philosophical than mathematical. Apart from these items, we have essentially the 'complete works'.

There are some introductory pages containing a very brief biography of Galois, describing how the manuscript was prepared and the various previous transcriptions. There is also some discussion of the translation, including problematic words such as *permutation*, *substitution*, and *primitif* – what my French teacher would have called 'faux amis' because the obvious translation does not necessarily capture what is meant. Brief notes accompany the translation of each document; the emphasis here is on the physical text rather than mathematical commentary. The book ends with a useful bibliography.



This is not a biography or a 'popular' mathematics history; it is not a book to read cover-to-cover. However it will be of interest to many mathematicians and an indispensable reference for historians of mathematics working in this area. It has clearly been prepared with meticulous care and (though I am far from an expert) it seems to me a very fine translation. Dr Neumann expresses the hope that the availability of an English translation may help to dispel some of the myths perpetuated about Galois: that he invented group theory the night before the fatal duel, that he knew about the simplicity of alternating groups, and so on. I think it will. While in theory my French is possibly good enough to study a transcription, the presentation of transcription and translation side by side in this excellent work is what has actually made me read Galois at last. I suspect I may not be alone in this!

Every mathematics library should have a copy of this book, and every mathematician interested in the history of the subject will find it an illuminating text.

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