ZMATH 2012b.00043

Cupillari, Antonella

A biography of Maria Gaetana Agnesi, an eighteenth-century woman mathematician. With translations of some of her work from Italian into English. Foreword by Patricia R. Allaire.

Lewiston, NY: Edwin Mellen Press (ISBN 978-0-7734-5226-8/hbk). viii, 322 p. (2007).

One of the most famous female mathematicians (or maybe even the most famous one) before the 19th century is the Italian Maria Gaetana Agnesi. She is most famous for a curve named after her – the "versiera" – but it is often forgotten that her chief contribution to mathematics was her textbook "Institutioni Analitiche ad uso della Gioventu' Italiana", which became one of the most important mathematical textbooks in the 18th century. It has been written much about Agnesi's life and achievements, but the present book gives the first full English translation of Agnesi's biography written by her contemporary and friend Antonio Francesco Frisi. This gives a unique insight not only into her scientific contributions, but also in her times and surroundings. The translation is enriched by notes and comments based on two most acknowledged modern biographies of Agnesi, published by Luisa Anzoletti in 1900 and by Giovanna Tilche 1984. Additionally to this full and commented translation of Frisi's biography of Agnesi, the author includes also much supplementary material. Of this we would particularly like to emphasise the inclusion of almost 80 pages of mathematical material from the "Institutioni Analitiche", that enables the reader to fully grasp Agnesi's contribution to pedagogy of mathematics. Many examples from the textbook are given in detail, and among them the problem in which the curve "versiera", in the incorrect English translation by Colson named "the witch of Agnesi" and "to which Maria Gaetana Agnesi owes her fame", appears. Agnesi describes and discusses the curve in detail as the solution to the problem of finding the curve formed by all points M such that $|AB| : |BD| = |AC| : |BM|$, where AC is the diameter of a given circle, B moves from one end of this diameter to the other, and D is the intersection of the circle with the perpendicular to the diameter drawn in B. Cupillari's book is a, for the English-speaking readers unique, comprehensive source on biographical and mathematical data about the great female intellectual of the 17th century, and should be of interest not only to historians of mathematics and science in general, but also to maths educators interested in the development of didactics of calculus, and of course also to a general public.

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Classification: A30
Keywords: Maria Gaetana Agnesi; early calculus textbooks; Witch of Agnesi; versiera