

# NEWTON'S SCIENTIFIC AND PHILOSOPHICAL LEGACY

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P.B. SCHEURER  
and  
G. DE BROCK  
(editors)

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PHILOSOPHICAL LEGACY

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## PREFACE

This volume contains the *Proceedings* of the International Colloquium "Newton's Scientific and Philosophical Legacy", that was held at the Catholic University of Nijmegen (The Netherlands) from June 9th to 12th 1987 to celebrate the Tercentenary of the publication of Newton's *Philosophiae Naturalis Principia Mathematica* (1667). Although 1987 was a busy year for Newton scholars, we were happy that five of most prominent among them were able to come to Nijmegen and speak on the various aspects of Newton's thought. They are the Professors I. Bernard Cohen (Harvard), Gale Christianson (Indiana State), B.J. Dobbs (Northwestern), Richard H. Popkin (UCLA) and Mordechai Feingold (Boston University). No doubt, recent scholarship has put Newton's genius in a quite different perspective from the one that had come to make up what may be called Newtonian mythology. Although his achievements in the areas of mechanics, mathematics, and optics remain indisputed, Newton's scientific efforts were apparently entirely subordinate to his religious beliefs.

This volume has been divided into four parts, preceded by a Preamble in which Prof. Christianson offers a vivid portrait of Newton as a person. The first part deals with the science of Newton as he himself understood that term. The second part considers the influence of Newton's work on later scientific developments. The third part deals primarily with the question of the methodological influence of Newton, and the last part with his more philosophical legacy. Two editorial remarks are due. The first remark concerns the use of the English language. The editors have chosen to respect the linguistic preference of the authors. Most texts use the American version of English, a few have preferred the British version. The other remark concerns the notes and references. Members of the scientific community have developed their own system which differs significantly from the system used in the Humanities. This difference too has been respected.

All in all, the colloquium lived up to its name. It was a marvelously interesting, lively, and friendly affair, and this was mostly due to the spirit of the participants.

The organization would not have been possible without the help of many people. Thanks are due in the first place to Prof. Westfall who, although unable to attend, kindly offered some golden tips. The Colloquium was made possible through a generous contribution from the Dutch Royal Academy of Science, and a donation by the Benevolentia Fund of the C&A Co. The actual organization was made possible by the tireless assistance of the members of the tiny Department of Philosophy. The major driving force was Dr.ir. Peter Kroes who was always available

and effective in kindly solving any and every problem before, during and after the Colloquium. The participants will also remember the efficient assistance of those who staffed the information desk: Marcel Albers, Lieke van der Scheer en Clementine Hendriks.

Lastly, a special note of thanks is due to Ms. van der Scheer, who not only typed some of the texts, but who saw to many details in the often frustrating process of making a text camera-ready.

The Colloquium was the sixth of a series of colloquia organized by the Department of Philosophy attached to the Faculty of Science of the same university. The aim of those colloquia is to bring together scientists and philosophers to exchange views on a variety of topics which are of common interest. The first (held in the Dutch language) was held to celebrate the Centennial of Einstein's birth. It was followed by colloquia on "New Languages in Scientific Evolution" (in English), "Values and Science" (in Dutch), "Nature, Time and History" (in English), and "The Tao of Nature" (in Dutch). The *Proceedings* of these Colloquia were published in the series of "Nijmegen Studies in the Philosophy of Nature and its Sciences" (obtainable from the Department of Philosophy, Faculty of Science, Catholic University, Nijmegen, The Netherlands).

The Editors

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