

## *Preface*

Much of the raw material for this book was collected from the work of others, sometimes from carefully constructed review documents, sometimes from books, and often simply from memories of conversations with our colleagues over the last 50 years. This is not a very technical book but we hope that we have recorded as much as possible of the history of particle accelerators — the Engines of Discovery — as well as the lives of those that built them, before it is either forgotten or lost to living memory.

This work is a personal perspective and, apart from the kind of errors that are inevitable in a first printing, we must surely have omitted to mention incidents and personalities that the reader would have liked to have seen included. We hope that further editions will rectify this.

The book contains many sidebars — biographical notes and descriptions of laboratories as well as technical concepts. Writing the biographical sidebars in this book would not have been possible without the generous help of our colleagues. Nevertheless, lack of space and the difficulty in tracking down reliable sources of information has meant that we have had to make a rather arbitrary and subjective choice. We have had to leave out many accomplished individuals who have made important contributions to the field — and regrettably risk disappointing some of our personal friends. The names of those who have been left out may be found

in the appendices which include a list of those who have been awarded prizes by their professional bodies — others appear in our list of principal publications. The appendices also include a glossary of commonly used technical terms and abbreviations together with a bibliography listing general texts, more technical accelerator books, seminal publications, and some web addresses.

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Accelerator science and engineering — the ability to handle particle and photon beams — has developed far beyond what anyone could have imagined in 1900. This book is dedicated to the physicists and engineers who, over a period of 100 years made possible electrostatic machines, the cyclotron, the betatron, the linac, the synchrotron, colliders and the other machines. These machines have discovered new forms of matter and changed our lives for the better.