

Preface

Ingegnati, se puoi, d'esser palese

(Dante, Vita nova, XIX).

The principle which has guided me in writing this book is indicated above. It has been written for the purpose of making astrodynamics, and such mathematical methods as are necessary to solve problems arising in this matter accessible to the largest possible number of readers, and in particular to students, aerospace engineers, and scientists.

To this end, the formal and sometimes esoteric language, which is still used in some books dealing with the same matter, has been abandoned. On the contrary, all possible means have been used to direct and keep the attention of the reader to the subject. The presentation of theoretical concepts has been followed by their application to practical cases. The numerical examples have been carried out from beginning to end, in order to guide those who make their first attempts to apply the methods described to cases of their interest. Equations and formulae appearing in the text have been rewritten as many times as necessary, instead of identifying them by numerals, which would have compelled the reader to search the pages in which they had been presented the first time. No exercises have been proposed without a complete guide to solve them. Several numerical tables have been given to enable the reader to apply immediately the methods presented. Some items of the so-called grey literature (unpublished works, technical reports, Ph.D. theses, lecture notes, etc.) have also been consulted and cited. In some cases, the opinions expressed by various authors who have previously written on the matter have been cited and compared. Care has been taken not to lose sight of the practical problem which has given rise to the mathematical method used for its solution. My goal has been rather the search for a clear and simple manner of expressing the concepts to be introduced to my readers than a strict observance of the classical form. Such are, if not the results obtained, at least the means by which I have striven to attain my object. It is to be hoped that these efforts will be favourably received by my readers.

I have read carefully the manuscript of this book before printing. However, I cannot believe it to be wholly free from any possible errors. Therefore, I shall be grateful to any person who will call my attention on such errors as he or she may discover.

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Alessandro de Iaco Veris

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de Iaco Veris, A.

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