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<<物理学和工程学中的计算方法>>

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内容概要

Computational methods form an increasingly important part of the undergraduate curricu-lum in physics and engineering these days. This book is mainly concerned with the ways that computers may be used to advance a student's understanding of physics. A large part of the material is common to engineering as well. The subject matter covered in this volume may be classified also under the title of "computational physics." There are several ways to organize the material that should be included. The choice made here is to follow the traditional approach of mathematical physics. That is, the chapters and sections are grouped around methods, with physical problems used as the motivation and examples. One attractive alternative is to group around physical phenomena. The difficulty of following this way of organization is the heavy reliance on the physics background of the readers, thus making it harder to follow for students at early stages of their education. For this reason, such an approach is rejected.

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