

# Preface

Applications of physics can be found in a wider and wider range of disciplines in the sciences and engineering. It is therefore more and more important for students, practitioners, researchers, and teachers to have ready access to the facts and formulas of physics.

Compiled by professional scientists, engineers, and lecturers who are experts in the day-to-day use of physics, this *Handbook* covers topics from classical mechanics to elementary particles, electric circuits to error analysis.

This handbook provides a veritable toolbox for everyday use in problem solving, homework, examinations, and practical applications of physics, it provides quick and easy access to a wealth of information including not only the fundamental formulas of physics but also a wide variety of experimental methods used in practice.

Each chapter contains

- all the important concepts, formulas, rules and theorems
- ▲ numerous examples and practical applications
- suggestions for problem solving, hints, and cross references

**M** measurement techniques and important sources of errors  
as well as numerous tables of standard values and material properties.

Access to information is direct and swift through the user-friendly layout, structured table of contents, and extensive index. Concepts and formulas are treated and presented in a uniform manner throughout: for each physical quantity defined in the *Handbook*, its characteristics, related quantities, measurement techniques, important formulas, SI-units, transformations, range of applicability, important relationships and laws, are all given a unified and compact presentation.

This *Handbook* is based on the third German edition of the *Taschenbuch der Physik* published by Verlag Harri Deutsch. Please send suggestions and comments to the Physics Editorial Department, Springer Verlag, 175 Fifth Avenue, New York, NY 10010.

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