

# Electrodynamics of Continuous Media

## 2nd edition

This new edition has been considerably revised and substantially enlarged by E.M. Lifshitz and L.P. Pitaevskii. It deals with the theory of electromagnetic fields in matter, and the theory of the macroscopic electric and magnetic properties of matter. The choice of material in the first edition was such that (with some slight exceptions) it has not become obsolete, but the incorporation of a considerable amount of new material was necessary. In particular, there is additional coverage of the theory of the magnetic properties of matter and the theory of optical phenomena, with new chapters on spatial dispersion and non-linear optics. The chapters on ferromagnetism and antiferromagnetism, and on magnetohydrodynamics, have been substantially enlarged, and eight other chapters have additional sections.

This is a systematic exposition of the subject from the basics up to problems of interest to research workers, with every chapter containing a large number of useful worked problems. It is thus of value to undergraduates, postgraduates and research workers in theoretical physics as well as scientists generally who are interested in electrodynamics.

### Independent opinion of the first edition

*"In short, Electrodynamics of Continuous Media is a book which can be thoroughly recommended to every physicist."*

**Nature**

*"It is quite certain that this book will remain unique and indispensable for many years to come."*

**Science Progress**

*"The book should appeal to a wide range of readers both for the up-to-date introduction it gives to so many important topics and for the insight it gives on Russian methods of exposition at the senior undergraduate level."*

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