

PREFACE TO THE SECOND EDITION

THIS edition differs from the first edition chiefly in Chapter 11, which has been almost completely rewritten to give a more physically-based picture of the effects arising from the long-range coherence of the electron-waves in superconductors and the operation of quantum interference devices. We are very grateful to Dr. J. Lowell for reading and commenting on the draft of this rewritten chapter. There are a number of other relatively minor changes throughout the book which we hope will improve the presentation.

We must also thank Dr Lucjan Sniadower for pointing out a number of errors, Miss Dorothy Denton for typing the manuscript of this second edition, and Nicholas Rose-Innes for help in checking the manuscript and proofs.

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December 1976

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NOTE ON THE REVISED SECOND EDITION

IN this revised second edition we have made some further modifications to the text and added a short extra chapter dealing with 'high-temperature' superconductors. A vast amount of research has been carried out on these since their discovery in 1986 but the results, both theoretical and experimental, have often been contradictory, and seven years later there remains little understanding of their behaviour. We have therefore been very selective and have included only material which we are confident will have permanent validity.

We are grateful to Dr Geoffrey Ross for comments on the draft of Chapter 14.

May 1993

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