



SCOTTISH ACADEMIC PRESS

Texts in Mathematics

Edited by Professor W. N. Everitt of the University of Dundee
and Professor A. Jeffrey of the University of Newcastle upon Tyne

A series designed for mathematical students in their final year, post-graduate students and research workers.

**THE SPECTRAL THEORY OF
PERIODIC DIFFERENTIAL EQUATIONS**

M. S. P. Eastham

Reader in Mathematical Analysis, University of London

The text is the first connected account of a body of results, relating in particular to eigenvalue and spectral theory, which has been developed in the *Mathematical Journals* over the past twenty years.

“The book can be strongly recommended to mathematicians and physicists at post-graduate level who want to reach a well-worked yet little-known frontier.”

Times Higher Education Supplement

144 pp. £2.50

ANALYTICAL METHODS OF OPTIMIZATION

D. F. Lawden

University of Aston in Birmingham

The scope of this book is essentially that of the classical theory of the calculus of variations, cast into a form which is most suitable for application to modern problems of optimizing the behaviour of engineering systems. All methods and principles are illustrated by worked problems, and there are sets of exercises at the end of each chapter. The book is suitable for final year applied mathematicians and for use as a text by all post-graduate students making a special study of systems theory.

164 pp. £3.50

**THEORY AND APPLICATION
OF THE BOLTZMANN EQUATION**

Carlo Cercignani

Institute of Mathematics, The Polytechnic of Milan

The book presents a unified approach to recent developments in the fields of electron transport in plasmas; neutron transport in solids and plasmas, and in nuclear reactors; phonon transport in superfluids and radiative transfer in planetary and stellar atmospheres. The main line of exposition is tied to the classical equation established by Boltzmann which still forms the basis for the kinetic theory of gases.

432 pp. £10.50