tity representation to $G_0$. The remaining space groups are then de­
ived in detail and classified within the rhombohedral, hexagonal, 
monic, rhombic, tetragonal, and cubic systems.

The two final sections are devoted to the study of special families 
of space groups in $n$ dimensions, such as those arising from the cyclic, 
symmetric, and alternating groups on $n$ symbols.

The book is clearly written and self-contained, except in the sec­
ion beginning on p. 91 where the ternary arithmetic classes are 
listed. Here the reader without previous knowledge of the notations 
of crystallography may have some difficulty reading the rather con­
densed summary of the 73 ternary arithmetic classes. The groups of 
motions in the plane are illustrated by excellent figures, but no at­
tempt is made to illustrate the 230 space groups by drawings such as 
are given by Wyckoff. The emphasis in the book is clearly on the 
mathematical derivation rather than the pictorial representation of 
the 230 space groups.

J. S. Frame

Methods of mathematical physics. By Harold Jeffreys and Bertha 
S. Jeffreys. New York, Macmillan; Cambridge University Press, 
1946. 9+679 pp. $15.00.

The book starts with a substantial chapter on real variable—
Dedekind sections, sequences, series, continuity, integration, mean 
value theorems. Chapters 2, 3, and 4 cover vectors, cartesian tensors, 
and matrices, and these are followed by chapters on multiple inte­
grals and potential theory. Operational methods and their applica­
tions occupy two chapters, and a long chapter is devoted to numerical 
methods. A short chapter on calculus of variations brings us to what 
may be regarded as the mid-point of the book, attained almost en­
tirely without the use of complex numbers.

The essential elements of the theory of functions of a complex 
variable are covered in two chapters. This opens up a wide field, and 
chapters follow on conformal representation, Fourier's theorem, fac­
torial (gamma) functions, linear differential equations of the second 
order, asymptotic expansions, equations of wave motion and heat 
conduction (three chapters), Bessel functions and applications, con­
fluent hypergeometric functions, Legendre functions, elliptic func­
tions. The book ends with explanatory notes, an appendix on nota­
tion, and an index.

Each chapter has a set of examples, a stimulating collection culled 
from examinations of the Universities of Cambridge, London, and 
Manchester.