

PROCEEDINGS  
OF  
THE EDINBURGH MATHEMATICAL SOCIETY

---

SERIES 2—VOL. 7—PART I

---

EDITED BY  
A. ERDÉLYI AND G. TIMMS

CONTENTS

	PAGE
ON THE APPLICATION OF THE OPERATIONAL CALCULUS TO THE EXPANSION OF A FUNCTION IN A SERIES OF LEGENDRE'S FUNCTIONS OF THE SECOND KIND: D. P. BANERJEE ... ..	1
INTEGRAL EQUATIONS FOR LAMÉ FUNCTIONS: A. ERDÉLYI ... ..	3
NOTE ON A DISTANCE INVARIANT AND THE CALCULATION OF RUSE'S INVARIANT: A. G. WALKER ... ..	16
A NOTE ON CONVERGENCE FACTORS: W. H. J. FUCHS ... ..	27
A NOTE ON SMALL VIBRATIONS: ROBERT SCHLAPP ... ..	31
ON THE METHODS OF EXTENDING DIRAC'S EQUATION OF THE ELECTRON TO GENERAL RELATIVITY: D. MARTIN ... ..	39
ON THE RELATIONS BETWEEN THE NUMBERS OF STANDARD TABLEAUX: D. E. RUTHERFORD ... ..	51
THE PROJECTIVE INVARIANTS OF FOUR MEDIALS: H. W. TURNBULL ... ..	55
A TYPE OF PERIODICITY OF CERTAIN QUARTIC SURFACES: W. L. EDGE ... ..	73

---

*Issued October 1942*

---

EDINBURGH:  
PRINTED BY LINDSAY & CO., LTD., 17 BLACKFRIARS STREET,  
AND PUBLISHED FOR THE SOCIETY BY  
G. BELL & SONS, LTD., PORTUGAL STREET, LONDON, W.C.2

THE EDINBURGH MATHEMATICAL SOCIETY is instituted for the promotion and extension of Mathematical Science—Pure and Applied.

It consists of Ordinary and Honorary Members.

Candidates for admission as Ordinary Members are nominated at one ordinary meeting of the Society, and balloted for at the next, a majority of at least two-thirds of the members present being necessary for election.

The Annual Subscription for ordinary membership is ten shillings. Any Ordinary Member may compound for his Annual Subscription by the payment of six guineas in one sum, subject to a reduction of one guinea after ten years' membership and a reduction of one guinea for each subsequent five years' membership of the Society.

The Committee of the Society may nominate as Honorary Members persons eminently distinguished in the Mathematical Sciences. The mode of election is, otherwise, the same as for Ordinary Members.

Each Member whose Subscription is not in arrears receives the *Proceedings* and the *Edinburgh Mathematical Notes* as published.

Members wishing to complete their sets of the *first* series of *Proceedings* can have back volumes—so far as these are in print—on application to the Hon. Secretary, on payment of five shillings per volume, in addition to postages. Other intending purchasers of volumes of *Proceedings* should apply to the Publishers, G. BELL & SONS, LTD.

Presents to the Library of the Edinburgh Mathematical Society should be addressed to the

HON. LIBRARIAN,

EDINBURGH MATHEMATICAL SOCIETY,

16 CHAMBERS STREET, EDINBURGH, 1

All papers and other communications should be sent to the

HON. SECRETARY,

EDINBURGH MATHEMATICAL SOCIETY,

16 CHAMBERS STREET, EDINBURGH, 1