ELLiptic and
Hyperelliptic Integrals
and Allied Theory
ELLiptic and Hyperelastic Integrals and Allied Theory

by

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With a foreword by

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FOREWORD

WILLIAM RALPH WESTROPP ROBERTS was born on the 6th May 1850. The eldest son of William Roberts, Senior Fellow of Trinity College, Dublin, he entered the College in February 1869, having received his early education privately. In the same year he was elected a Scholar of the House, the most coveted undergraduate distinction. This was followed by a series of brilliant successes which included the gaining of most of the important prizes in the Mathematical School. He was Lloyd Exhibitioner in 1871 and Bishop Law's Prizeman in 1873.

Meanwhile in 1872 he had become the first University Student of the year, graduating with a first class Moderationship in Mathematics with the Large Gold Medal and a first class Moderationship, in which he was also placed first, in Experimental Science. In 1875 Roberts gained further distinction by taking the McCullagh Prize, the subject of the examination that year being “Theory of Rotation, with application to Precession and Notation.” The next five or six years he was busily engaged in the attempt to win a Fellowship. He was Fellowship Prizeman in 1877, 1879, 1880 and again in 1881. In 1882 he was elected a Junior Fellow.

He contributed a number of papers on various subjects to the Proceedings of the London Mathematical Society and to those of the Royal Irish Academy. Of the latter body he was an enthusiastic member and was elected Treasurer in 1908. In addition to his mathematical studies Roberts, who was ordained some twelve years after gaining his fellowship, interested himself in theological studies and obtained the Bachelor of Divinity degree in 1896. The year before he became a lecturer on the staff of the Divinity School having been appointed an assistant to Archbishop King’s Lecturer. He became a Doctor of Divinity in 1915.

For many years Roberts was a wise and tolerant Tutor and nothing pleased him more at the end of his long life than the opportunities which he had of meeting with his former pupils when they revisited the University.

During the last twenty years of his life Roberts was constantly engaged in one or other of the administrative posts which are filled by a Senior Fellow. In November 1914 he was co-opted Senior
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Fellow vice Mahaffy and the following year he was made Senior Lecturer. He continued to fill this most important office until 1927 when he was made Vice-Provost of the College, the latter position he continued to fill until a few days before his death in 1935. He had already served his term as Senior Proctor in 1926 and at the time of his death he was Senior Dean of the College.

During all those years Roberts was planning to publish a work on Mathematics. He had given to his publishers much material but unhappily he did not live to revise it or to see the work through the press and it is here presented to the public in a form which is necessarily incomplete.*

The subject matter of the work is indicated in the opening Chapter. It is "Elliptic and Hyperelliptic integrals and allied theory." This was a subject to which Roberts had given much attention. I am informed by a friend, who kindly read the book in proof, that the methods used by the author in approaching these problems will be of considerable interest to mathematicians.

It only remains for me to add that I have written this short introduction, not because I am qualified to speak of the subject matter of the book, but because I was honoured by Dr Roberts' friendship in his declining years and I gladly acceded to the request of his relatives that I should say something of his career as student, teacher and administrator.

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* The last chapter of the book as printed (Chapter vi) is unfinished; this is clear from the references to Chapter vii and to figures on pp. 285, 292, 297—300.