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(*b*. Newbury, England, 1 June 1899; *d*. Oxford, England, 18 January 1963)

mathematics.

Titchmarsh was the son of Edward Harper and Caroline Titchmarsh. In 1925 he married Kathleen Blomfield; they had three children. Titchmarsh received his mathematical training at Oxford; and, like most of his contemporaries, he did not take a doctorate. After teaching at University College, London (1923 – 1929) and the University of Liverpool (1929 – 1931), he became Savilian professor of geometry at Oxford. He held this position for the rest of his life.

All of Titchmarsh's extensive research was in various branches of analysis; and in spite of his professorial title, he even lectured exclusively on analysis. He made many significant contributions to Fourier series and integrals; to integral equations (in collaboration with G. H. Hardy); to entire functions of a complex variable; to the Riemann zeta-function; and to eigenfunctions of secondorder differential equations, a subject to which he devoted the last twenty-five years of his life.

Titchmarsh wrote a Cambridge tract on the zetafunction (1930), and later expanded it into a much larger book (1951) containing practically everything that was known on the subject. His survey of Fourier integrals (1937) is a definitive account of the classical parts of the theory. His work on eigenfuntions appeared in two parts in 1946 and 1958. His text *The Theory of Functions* (1932) was his best-known book; a generation of mathematicians learned the theory of analytic functions and Lebesgue integration from it, and also learned (by observation) how to write mathematics. He also wrote *Mathematics for the General Reader* (1948).

Titchmarsh made many original contributions to analysis, but his influence was at least as great through his systematization of existing knowledge and his improvements of proofs of known results. He saw physics as a source of interesting mathematical problems; but his interest was exclusively in the mathematics, without any regard for its real applicability. The approach, so often sterile, was successful in his case, for it led him into his study of eigenfunctions, in which the importance of his results was less appreciated in Great Britain than in other countries, especially the Soviet Union.

BIBLIOGRAPHY

Titschmarsh's works are *The Zeta-Function of Riemann* (London, 1930); *The Theory of Functions* (Oxford, 1932); *Introduction to the Theory of Fourier Integrals* (Oxford, 1937); *Eigenfunction Expansions Associated With Second-Order Differential Equations*, pt.1 (Oxford, 1946), pt. 2 (Oxford, 1958); *Mathematics for the General Reader* (London, 1948); and *The Theory of the Riemann Zeta-Function* (Oxford, 1951).

On Titchmarsh and his work, see the obituary by M. L. Cartwright, in *Journal of the London Mathematical Society*, **39** (1964), 544–565.

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