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(*b.* Breslau, Germany [now Wrocław, Poland], 30 January 1865; *d.* Kiel, Germany, 14 September 1912)

*mathematics.*

Landsberg spent his youth in Breslau. He studied at the universities of Breslau and Leipzig from 1883 to 1889, receiving his doctorate in mathematics from the former in 1890. He then went to the University of Heidelberg, where he became a privatdocent in mathematics in 1893 and extraordinary professor in 1897. He returned to Breslau in this capacity in 1904, but in 1906 he accepted an offer from the University of Kiel, where he was appointed professor ordinarius in 1911. He remained at Kiel until his death.

Landsberg investigated the theory of algebraic functions of two variables, which was then a hardly accessible subject that did not attain its major successes until much later. He also considered the theory of curves in higher dimensional manifolds and its connection with the calculus of variations and the mechanics of rigid bodies. In addition he studied theta functions and Gaussian sums. In this work he touched on the ideas of Weierstrass, Riemann, and Weber.

Landsberg's most important achievement lay in his contributions to the development of the theory of algebraic functions of one variable. In this field arithmetic, algebra, function theory, and geometry are most intimately related. In addition to Riemann's function-theoretical approach and the geometric approach favored by Italian mathematicians as an especially easy and sure access, there existed the arithmetical approach from Weierstrass. Landsberg's most important work in this area was his algebraic investigations of the Riemann-Roch theorem, which had been stated by Riemann in the context of his theory of algebraic functions and greatly extended by Roch. Landsberg provided a foundation for it within arithmetic theory, which then finally led to the modern abstract theory of algebraic functions.

## BIBLIOGRAPHY

Landsberg's *Theorie der algebraischen Funktionen einer Variablen und ihre Anwendungen auf algebraische Kurven und abelsche Integrale* (Leipzig, 1902), written with Kurt Hensel, was a standard text for decades. A complete listing of Landsberg's articles can be found in Poggendorff, **IV**, 835; **V**, 706.

Bruno Schoeneberg