

Tauber, Alfred | Encyclopedia.com

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(*b.* Pressburg, Slovakia [now Bratislava, Czechoslovakia], 5 November 1866; *d.* Theresienstadt, Germany [now Terezin, Czechoslovakia], 1942[?]), *mathematics*.

Tauber entered the University of Vienna in 1884, concentrating on mathematics, physics, philosophy, and political economy. His doctoral dissertation, “über einige Sätze der Gruppentheorie” (1888), was written under Gustav von Escherich and was intended for publication, although it never appeared in print. In 1891 Tauber qualified as *Privatdozent* with the *Habilitationsschrift* “über den Zusammenhang des reellen und imaginären Teiles einer Potenzreihe” and subsequently lectured on the theory of series, trigonometric series, and potential theory. From 1895 he also lectured on the mathematics of insurance, a subject of little interest to him. He was subsequently awarded a monthly salary for this work, and from 1899 he also lectured on the subject at the Technical University of Vienna, where he was appointed *Honorar-dozent* in 1901. Financial responsibilities obliged Tauber to accept the post of head of the mathematics department of the Phönix insurance company in Vienna (1892–1908). After obtaining an assistant professorship at the university in 1908 he remained adviser to the company until 1912. He had an important role in investigations of mortality tables carried out by a group of insurance companies (1903–1907) and was consultant on insurance to the [chamber of commerce](#) and legal adviser to the commerce court of Vienna.

Tauber never assumed the duties of a full professor at the University of Vienna, and the title was not formally conferred upon him until 1919. The reasons for his difficulties are not known, but he was apparently not on good terms with some of the professors there. Almost all of his lectures were given at the Technical University. He retired in 1933 but remained as *Privatdozent* at both universities until 1938. Nothing is known about his last days. The central information office of the Vienna police headquarters contains only one entry, dated 28 June 1942: “Departure to Theresienstadt [[concentration camp](#)].”

Tauber’s scientific work can be divided into three areas. The first comprises papers on function theory and potential theory; those in the latter area, although overshadowed by the work of Lyapunov, are still important. His most important memoir was “Ein Satz aus der Theorie der unendlichen Reihen” (1897). In 1826 Abel had proved a limit theorem on power series (Abel’s limit theorem), the converse of which is true, as Tauber demonstrated, only if an additional condition is stipulated; such conditions are now called Tauberian conditions. These theorems are of fundamental importance in analysis, as was shown especially by G. H. Hardy and J. E. Littlewood, who coined the term “Tauberian theorems,” and by N. Wiener. Tauber apparently did not follow subsequent developments of this theorem and, remarkably, did not seem to have considered his memoir of particular importance.

The second group includes papers on linear differential equations and the gamma functions. Although of interest, they did not achieve the importance of his other works.

The third group contains papers and reports on the mathematics of insurance. In “über die Hypothekenversicherung” (1897) and “Gutachten für die sechste internationale Tagung der Versicherungswissenschaften” (1909) he formulated his Risiko equation.

BIBLIOGRAPHY

I. Original Works. A bibliography of Tauber’s works may be found in the article by Pinl and Dick (see below). His outstanding work was “Ein Satz aus der Theorie der unendlichen Reihen,” in *Monatshefte für Mathematik und Physik*, **8** (1897), 273–277. See also “über den Zusammenhang des reellen und imaginären Teiles einer Potenzreihe,” *ibid.*, **2** (1891), 79–118, his *Habilitationsschrift*; “über einige Sätze der Potentialtheorie,” *ibid.*, **9** (1898), 74–88; and “über die Hypothekenversicherung,” in *österreichische Revue*, **22** (1897), 203–205.

II. Secondary Literature. On Tauber and his work, see obituaries by E. Bukovics and J. Rybarz in *Festschrift der technischen Hochschule Wien* (Vienna, 1965–1966), **I**, 344–346; **II**, 130–132; and Maximilian Pinl and Auguste Dick, “Kollegen in einer dunkeln Zeit: Schluss,” in *Jahresbericht der Deutschen Mathematiker-vereinigung*, **75** (1974), 166–208, especially 202–208, which includes a bibliography.

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