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(*b*. Tetschen, Bohemia [now Decin, Czechoslovakia], 16 December 1887; *d*. Vienna, Austria, 25 May 1956)

mathematics.

Radon entered the Gymnasium at Leitmeritz (now Litomerice), Bohemia, in 1897 and soon showed a talent for mathematics and physics. In 1905 he enrolled at the University of Vienna to study those subjects and was subsequently influenced by Gustav von Escherich, who introduced him to the theory of real functions and the calculus of variations. His doctoral dissertation (1910), on the latter subject, was also his first published paper. Radon spent the winter semester of 1911 at the University of Göttingen, served for a year as assistant professor at the University of Brünn (now Brno), then went to the Technische Hochschule of Vienna in the same capacity. He became *Privatdozent* at the University of Vienna in 1914 and achieved the same rank a year later at the Technische Hochschule.

In 1919 Radon was appointed associate professor at the University of Hamburg; he became full professor at Greifswald in 1922, at Erlangen in 1925, and at Breslau in 1928. He left Breslau in 1945 and in 1947 obtained a full professorship at Vienna, where he spent the rest of his life. In the same year he became a full member of the Austrian Academy of Sciences.

The calculus of variations remained Radon's favorite field because of its close connections with so many areas of analysis, geometry, and physics. His most important paper in this field (1927) greatly influenced its further development, especially of the difficult Lagrange problem. In 1928, in lectures at Hamburg, Radon presented his results in an expanded form. He was deeply interested in the applications of the calculus of variations to differential geometry and discovered the so-called Radon curves, which have found applications in number theory. In addition to his work in affine differential geometry (1918–1919), in conformal differential geometry (1926), and in Riemannian geometry, Radon treated mathematical problems of relativity theory. His important paper on algebra, "Lineare Scharen orthogonaler Matrizen," was inspired by his work on the calculus of variations and proved to have many applications.

Radon's best-known work, "Theorie und An-wendungen der absolut additiven Mengenfunktionen," which exerted a great influence, essentially combined the integration theories of Lebesgue and Stieltjes. Led to his research by physical considerations, he studied the most general distributions of masses in space and developed the concept of the integral, now known as the Radon integral. A continuation of this work is the paper "Über lineare Funktionaltransformationen und Funktionalgleichungen."

An important theorem in the calculus of variations, later generalized by Otton Nikodym, is the Radon-Nikodym theorem. Radon himself applied this theory to the Dirichlet problem of the logarithmic potential. He also developed a technique now known as the Radon transformation (1917), which has many applications. Radon's interest in the philosophy of mathematics was reflected in his paper "Mathematik und Wirklichkeit."

BIBLIOGRAPHY

Radon published 45 papers which still are of great importance. Among them are "Über das Minimum des Integrales in *Sitzungsberichte der Akademie der Wissenschaften in Wien*, **119** (1910), 1257–1326; "Theorie und Anwendungen der absolut additiven Mengenfunktionen," *ibid*., **122** (1913), 1295–1438, his *Habilitationsschrift;* "Über die Bestimmung von Funk-tionen durch ihre Integralwerte längs gewisser Mannig-faltigkeiten," in *Berichte über die Verhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften in Leipzig*, **69** (1917), 262–277; "Über lineare Funktional-transformationen und Funktionalgleichungen," in *Sitz-imgsherichte der Akademie der Wissenschaften in Wien*, **128** (1919), 1083–1121; "Über die Randwertaufgaben beim logarithmischen Potential," *ibid*., 1123–1167; "Lineare Scharen orthogonaler Matrizen," in *Abhandlungen aus dem Mathematischen Seminar, Universität Hamburg***1** (1921), 1–14; "Über statische Gravitationsfelder," *ibid*, (1922), 268–288; "Mathematik und Wirklichkeit," in *Sitzungs-berichte der Physikalisch-medizinischen Sozietät in Erlangen*, **58–59** (1926–1927), 181–190; "Oszillationsthcoreme der Konjugierten Punkte beim Problem von Lagrange," in *Sitzungsberichte der Bayerischen Akademie der Wissenschaften zu Mümchen*, **7** (1927), 243–257; and "Zum Problem von Lagrange," in *Abhandlungen aus dem Mathematischen Seminar, Universität Hamburg*, **6** (1928), 273–299, his lectures.

A monograph on the Radon transformation as well as applications to differential equations can be found in the book of F. John, *Plane Waves and Spherical Means* (New York, 1955). Obituaries can be found amongst others in *Monatshefte für Mathematik*, **62** (1958), 189–199, and in *Almanach. Österreichische Akademie der Wissenschaften*, **107** (1958), 363–368.