

Obituary: Prof. Friedrich Hirzebruch

by Manjil Saikia - Friday, June 22, 2012

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Friedrich Ernst Peter Hirzebruch (17 October 1927 – 27 May 2012) was a German mathematician, working in the fields of topology, complex manifolds and algebraic geometry, and a leading figure in his generation. He has been described as "the most important mathematician in the Germany of the postwar period." We at Gonit Sora deeply mourn the death of this giant of the 20th century mathematics. Not only the Riemann-Roch-Hirzebruch formula, the Hirzebruch signature theorem, and the Hirzebruch surfaces, but above all his unique commitment to mathematics and support of mathematicians from all over the world will always be remembered. Here is the obituary notice published by the Max Planck Institute for Mathematics at Bonn:

The Max Planck Institute for Mathematics in Bonn mourns the death of Professor Dr. Friedrich Hirzebruch. As it became known on Tuesday, the eminent mathematician and citizen of Bonn passed away on Sunday, May 27 at the age of 84. Professor Hirzebruch is the founding director of the Max Planck Institute for Mathematics, which he headed from 1980 to 1995. His work largely influenced the development of modern mathematics. Through his personal efforts and achievements he contributed in an essential way to the reconstruction of mathematics research in Germany after World War II.

Friedrich Hirzebruch was born on October 17, 1927 in Hamm, Westphalia. From 1945 to 1950 he studied mathematics in Munster and Zurich. After two years in Princeton from 1952 to 1954 he was appointed as full Professor at the University of Bonn. His research interests were in the fields of topology and geometry.

For his manifold achievements Friedrich Hirzebruch received a number of awards and prizes. Among others, the Grand Merit Cross with Star of the Federal Republic of Germany, the Wolf Prize for Mathematics, the Seki Takakazu Prize, the Lomonossov Gold Medal, the Albert Einstein Medal, and the Georg Cantor Medal of the Deutsche Mathematikervereinigung. He held honorary doctorates from over 14 universities. He was member of a number of Academies of Science and of the Order pour le mérite.

"With Friedrich Hirzebruch, mathematics has lost one of his truly great personalities. He was a wonderful human being and an eminent researcher whose contributions have shaped the entire field", said Peter Teichner, managing director of the Max Planck Institut for Mathematics in Bonn. "Our institute, which he founded, will always remain his institute, too."

According to Wikipedia:

Hirzebruch was born in Hamm, Westphalia in 1927. He studied at the University of Münster from 1945–1950, with one year at ETH Zürich.

He then had a position at Erlangen, followed by the years 1952–54 at the Institute for Advanced Study in Princeton, New Jersey. After one year at Princeton University 1955–56, he was made a professor at the University of Bonn, where he remained, becoming director of the *Max-Planck-Institut für Mathematik* in 1981. More than 300 people gathered in celebration of his 80th birthday in Bonn in 2007.

The Hirzebruch–Riemann–Roch theorem (1954) for complex manifolds was a major advance and quickly became part of the mainstream developments around the classical Riemann–Roch theorem; it was also a precursor of the Atiyah–Singer index theorem. Hirzebruch's book *Neue topologische Methoden in der algebraischen Geometrie* (1956) was a basic text for the 'new methods' of sheaf theory, in complex algebraic geometry. He went on to write the foundational papers on topological K-theory with Michael Atiyah, and collaborate with Armand Borel on the theory of characteristic classes. In his later work he provided a detailed theory of Hilbert modular surfaces, working with Don Zagier.

Hirzebruch was a foreign member of numerous academies and societies, including the United States National Academy of Sciences, the Russian Academy of Sciences, and the French Academy of Sciences. In 1980/81 he delivered the first Sackler Distinguished Lecture in Israel.

Hirzebruch died at the age of 84 on 27 May 2012.

Amongst many other honours, Hirzebruch was awarded a Wolf Prize in Mathematics in 1988 and a Lobachevsky Medal in 1989.

The government of Japan awarded him the Order of the Sacred Treasure in 1996.

Hirzebruch won an Einstein Medal in 1999, and received the Cantor medal in 2004.

An excellent article by the New York Times can be found [here](#).

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