Obituary: Walter Benz   (1931–2017)

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Walter Benz

Professor Dr. Dr. h.c. Walter Benz, an internationally renowned, highly esteemed and influential mathematician, passed away on 13 January 2017. His research enriched geometry and he founded this journal with Birkhäuser in 1971. We have lost a very active researcher, a kind colleague and a reliable friend. We will always keep him in fond memory and express our deepest sympathy to his family and all who knew him.

His live can be described accurately with the following statement, which he made in 2007 in an interview given to Uta Hartmann (cf. [1]):

> "Die Mathematik war mein Leben, ist mein Leben. Meine Begeisterung für dieses Fach ist ungebrochen. Es gibt keinen Tag an dem ich mich nicht auch ernsthaft mit Mathematik beschäftige."

Walter Benz was born in Lahnstein, Germany, on 2 May 1931. During the last days of the second world war his uncle taught and familiarized him with the books "Differentialgleichungen" by Karl-Heinrich Weise and "Differentialgeometrie" by Wolfgang Haak. These books founded the lifelong bond of love of Walter Benz to mathematics. He started his study of mathematics and physics at the Johannes-Gutenberg-Universität Mainz in 1951, completed his "Staatsexamen" in 1955 and received his Ph.D. one year later under the supervision of Robert Furch (1894–1967) with a thesis in geometry, entitled "Axiomatischer Aufbau der Kreisgeometrie auf Grund von Doppelverhältnissen". In the year 1959 Walter Benz qualified as a university lecturer with the thesis "Über Winkel- und Transitivitätseigenschaften in Kreisebenen".

In the following years Walter Benz was teaching mathematics in Frankfurt (1961–1965), Mainz (1961), Würzburg (1963–64), Bochum (1966–1974) and at the University of Waterloo (1966–67, 1969), since 1966 as a full professor, and from 1971 to 1974 as the Dean of the Mathematical Faculty of the University of Bochum. Then, in 1974, he was appointed as full professor at the University of Hamburg, where he also served as the Dean of the Mathematical Faculty (1985–1988), and where he stayed until his retirement in 1997. He also was visiting professor at Bologna, Brescia, Freiburg, Kuwait, Rome, Thessaloniki and Trieste.

Walter Benz is well-known for his comprehensive work in several parts of geometry. He was researching in the geometries of Möbius, Laguerre, Minkowski and Lie, contributed deep results to the discipline "characterizations of geometrical mappings under mild hypotheses" and wrote papers about functional equations. Furthermore, he was involved with hyperbolic geometry, metric geometry and special relativity. He published more than 180 articles and several books, for example the highly influential early book "Vorlesungen über Geometrie der Algebren". The planes of Möbius, Laguerre and Minkowski are known today under the name "Benz planes".

Walter Benz's achievements have been recognized by an honorary doctorate from the University of Sofia (1995), an honorary fellowship in the "Mathematische Gesellschaft in Hamburg" (1996), and the honorary fellowship (2004) of the Hungarian Academy of Sciences. Furthermore he was a member of the European Academy of Sciences (2004). He was an editor of the journals "Jahresberichte

der DMV", "Journal of Geometry", "Aequationes Mathematicae", "Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg", "Results in Mathematics", "Atti del Seminario Matematico e Fisico dell'Università di Modena" and "Mitteilungen der Mathematischen Gesellschaft in Hamburg".

His inexhaustible knowledge about other famous mathematicians was very impressing. He knew not only their teachers and pupils, but also was able to tell humorous and distinguishing anecdotes.

Walter Benz will stay alive by his mathematical work and will be always remembered by his friends and colleagues.

References

[1] Hartmann, Uta: Walter Benz – "Mathematik war mein Leben, ist mein Leben", J. Geom. **93** (2009), 83–115

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