

Obituary

Prof. Dr. Alexander Prestel

January 17, 1941 – März 4, 2024

We mourn the loss of Professor Alexander Prestel. With his death, the University of Konstanz and the international mathematical community have lost a pioneering scientist who had a major impact on model theory, valuation theory, the theory of quadratic forms and real algebraic geometry.

Alexander Prestel, born in 1941, first grew up in Berchtesgaden and then in Münster. He studied mathematics in Münster and completed his doctorate there under Karl-Bernhard Gundlach on the subject of Hilbert modular groups. After completing his doctorate, he held an assistant position with Gisbert Hasenjaeger in Bonn, where he habilitated in 1972 in the field of logic and foundations of mathematics. In the summer term of 1973, he was a deputy professor in Münster. Immediately afterwards, he became an extraordinary professor on a permanent position in Bonn. In 1975, he took up a full professorship at the University of Constance, where he retired in 2009, but continued regularly offering well-attended lectures for another decade until the start of the coronavirus pandemic.

His excellent scientific reputation led him to numerous guest professorships at renowned institutions worldwide, including the University of California in Berkeley, the IMPA in Rio de Janeiro and the University of Campinas in the state of São Paulo.

Professor Prestel's research interests were broad, with significant contributions to model theory, valuation theory and the theory of quadratic forms. He published extensively and was a respected editor of leading journals such as *Annals of Pure and Applied Logic*, *Manuscripta Mathematica* and *Communications in Algebra*. In the 1970s and 1980s he wrote his two still widely cited monographs on formally real and formally p -adic fields. Between 1985 and 2005 he published, mostly with co-authors, five textbooks on set theory, mathematical logic and model theory, on model theory for real algebraic geometers, on positive polynomials and finally on valuation theory. His mentorship shaped the careers of many successful mathematicians.

As the head of department, he was successful in restructuring in the 2000s the department into its current structure by "research focus areas". Eventually, he coordinated the research focus area "Real Geometry and Algebra" until his retirement. In addition to his academic achievements, Alexander Prestel was known for his cordiality, intellectual curiosity and unfailing support of his students and doctoral candidates.

On March 4, 2024, Alexander Prestel, who had to deal not only with health problems in recent years, but also with several blows of fate, passed away. His colleagues at the University of Konstanz and around the world will keep him in honorable memory.

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