

## Obituary for Prof. Dr. Hermann Heineken

The Institute of Mathematics mourns the loss of Prof. Dr. Hermann Heineken, former holder of the Chair of Algebra; he passed away on 4 April 2026 at the age of 90.



Hermann Heineken was born in Hamburg in 1936 and studied there, as well as in Marburg and Frankfurt. In 1959, he passed the state examination in Frankfurt for a teaching qualification in mathematics and physics. His state examination thesis led to an early academic publication, which appeared in the journal *Archiv der Mathematik* in 1960 and solved a problem posed by his teacher Reinhold Baer in a surprisingly simple manner. In 1961, he obtained his doctorate under Reinhold Baer in Frankfurt with a thesis on ‘Engelsche Elemente der

Länge drei’ and subsequently spent the academic year 1961/62 as a visiting scholar at the University of Notre Dame (USA). In 1966, he qualified as a professor at the University of Frankfurt with a habilitation thesis on ‘Gruppen, deren Kommutatorstrukturen gewisse Abschlußigenschaften haben’. Following a further visiting fellowship in 1967–68 at Cambridge (England), he became a lecturer at the University of Erlangen-Nuremberg. From 1973 until his retirement in 2003, he held the Chair of Algebra at the Julius Maximilian University of Würzburg, with which he remained closely associated even in retirement.

Prof. Heineken’s mathematical work follows in the group-theoretic tradition of the Baer school. In more than 120 publications, he has addressed numerous aspects of finite and infinite groups, often employing ingenious and sometimes extensive algebraic manipulations. In his most frequently cited paper, written jointly with Ismail Mohamed, he constructed an infinite metabelian  $p$ -group with trivial center for every prime number  $p$ . The properties of these examples, now known as Heineken–Mohamed groups, stand in sharp contrast to well-known results on finite  $p$ -groups and answer several questions posed by Kurosh and Černikov in 1947 (cf. Kikianty, Nongxa, The life and mathematics of Ismail Mohamed, *Afrika Matematika* 36 (2025) no. 4, Paper no. 152). More than half of Prof. Heineken’s publications were produced in collaboration with a total of 48 co-authors from all over the world. Some of them contributed to the first volume (2016) of the journal ‘Advances in Group Theory and Applications’ containing exclusively papers dedicated to Prof. Heineken on his 80th birthday.

Professor Heineken fostered academic ties between the algebraists in Erlangen and Würzburg through a regular joint advanced seminar. He was also one of the founding fathers of the conference series ‘Groups and Topological Groups’, which began in 1972 with a meeting in Nördlingen and continues to this day at various locations, most recently in Florence (January 2026) and next in Dresden (June 2026). Prof. Heineken took great pleasure in attending

conferences to exchange ideas with colleagues and co-authors; when air travel was no longer possible for health reasons, he was still able to reach destinations in Germany and Italy by train.

Prof. Heineken served twice as Dean of our Faculty and was a member of the University Senate. He always worked selflessly for the interests of the Faculty. He responded to the requests and concerns of colleagues and students with his characteristic friendliness, helpfulness and composure. He was universally liked and respected, particularly as a wise and level-headed advisor in difficult situations.

With the passing of Prof. Heineken, we lose an enthusiastic and internationally highly regarded mathematician who pursued his science and engaged with others with great passion, finding deep fulfilment in doing so.

Our thoughts are with his children, grandchildren and all his loved ones.