Obituary

Marek Kuczma, 1935–1991

ROMAN GER

Marek Kuczma was born on October 10, 1935 in Katowice (Poland). There he completed his high school and he returned there in 1963. His habilitation at the Jagello University (Krakow) in October, 1963 coincided with the establishment of the Katowice branch of the oldest Polish University. To this institution Professor

Kuczma was attached from its very beginnings. In October, 1963 he became the head of the mathematical section of the Katowice branch of the Jagello University. Right after obtaining a position of “docent” (associate professor), he was elected vice-dean of the Faculty of Mathematics, Physics and Chemistry of the Jagello University, responsible for the Katowice branch. He held this position until mid-68. Independently, on December 1, 1966 he was appointed head of the Department of Functional Equations in the Katowice branch of the Jagello University.

Since the establishment of the Silesian University of Katowice in 1968 till the end of the academic year 1968/69, M. Kuczma was the head of the mathematical section of the University and, simultaneously, headed the department of functional equations. In 1969 a new organizational structure was introduced at the university and Prof. Kuczma became the director of the Institute of Mathematics. He held this position till the end of September, 1973. He was also the head of the Section of Functional Equations in this Institute until August 31, 1987.

During 1966–68 he was also working at the Mathematical Institute of the Polish Academy of Sciences (Section of Mathematical Analysis) and, from March, 1970 till September, 1975, in the Section of Complex Automatic Systems, a research center in the Katowice region where he was the head of the Workshop for Iteration Theory. Moreover, M. Kuczma was a member of the Scientific Councils of the Mathematical Institutes at the Silesian University and at the Technical University of Gliwice. He was also an official delegate of the Ministry of Science, Academic Education and Technics to the Committee of the Mathematical Sciences of the Polish Academy of Sciences.

Professor Kuczma began his didactic work already as a student in 1956 and he was conducting it without breaks until his first stroke in 1978. The stroke made long-lasting therapy and rehabilitation necessary, after which he returned to teaching. Unfortunately not for long because tragedy struck again and a second stroke restricted him to a wheel-chair and to the modest interiors of his flat at Mikołowska street in Katowice. There he could manage exclusively due to the care, angelic patience and devotion of his wife Krystyna. That is why Professor Kuczma was still able to continue his research work quite intensively. In this tragic decade (the eighties) he wrote nearly thirty mathematical papers; some of them are still in print.

Marek Kuczma died on June 13, 1991 in Katowice, after a hopeless seven months of hospitalization.

The scientific output of Professor Kuczma is enormous; it consists of 180 publications and of three mathematical monographs:

- (i) Functional Equations in a Single Variable
- (ii) An Introduction to the Theory of Functional Equations and Inequalities
- (iii) Iterative Functional Equations.

The first, published by Polish Scientific Publishers in 1968 in the series "Mathematical Monographs", had been the only monograph on that subject for more than twenty years and a fundamental source for the theory of functional equations in a single variable. It was quoted by all authors working in the field. The second monograph, published by the same publisher, was also a great success in the international mathematical community and is highly appreciated by the specialists. The last one, written jointly with B. Choczewski and R. Ger, was published in 1990 by Cambridge University Press in the series "Encyclopedia of Mathematics and Its Applications"; the book contains an outline of the modern theory of iterative functional equations including recent developments on the subject.

M. Kuczma's works on monotonic and convex solutions of some basic iterative functional equations immediately found interesting and elegant applications in probability theory (branching processes).

However, the paramount achievement of Professor Marek Kuczma was the creation and development of a systematic theory of iterative functional equations and founding a mathematical school centered around the seminar conducted by him since October, 1964. The author of this obituary had the honour of belonging to this school. Among Kuczma's numerous students, eleven have already their habilitations and three of them became full professors. Now students of Kuczma's students defend their habilitation theses.

The scientific achievements of Professor Kuczma and his school are widely known. He liked to travel, which led him to lecture at many European and North American universities and to accept visiting positions in Waterloo (Canada) and Marburg (Germany). He took active part at numerous international congresses, symposia and conferences. He contributed as member of the Editorial Board to "Aequationes Mathematicae" since its very beginning.

M. Kuczma was considered an outstanding mathematician highly esteemed by the international community of specialists; among the functional equationists he had commonly been treated as one of the informal leaders. His personality and influence allowed him to enjoy the respect of his entourage but also of people with loose, if any, connections to mathematics. His ingenuity, efficiency and his ability of getting fast to the crux of the matter, his uncompromising attitude and adherence to honest and respectable principles of life—all these made Kuczma a great Teacher.

A rich and fruitful career has come to an end. It remains for us to come to grips with Marek Kuczma's demise and to face the loss of a scholar whose work and personality contributed so much to the field of functional equations. The work he has done and people he inspired, remain with us. We should not bemoan that we have lost him too soon; we should be grateful that we had him among us.

MAREK KUCZMA: LIST OF PUBLICATIONS

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