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György Pollák
1929 – 2001

György Pollák in memoriam

On June 29, 2001 György Pollák passed away. He was born in Budapest on April 26, 1929. He started his studies at the University of Budapest and, in the second year, he proceeded to the University of Kazan', Soviet Union, where he graduated in mathematics in 1953.

In the same year, he became an instructor and, a year later, a research fellow at the Bolyai Institute, University of Szeged. During these years, he started research in algebra under L. Rédei's guidance. His thesis written on Euclidean and principal ideal rings earned him the degree 'Candidate of Science' (higher than PhD) in 1961.

In 1958, he was invited to join the Mathematical Institute of the Hungarian Academy of Sciences. Although he worked there officially until his retirement in 1998, he lived in Szeged and took part in the everyday life — both teaching and research — of the Bolyai Institute, University of Szeged. He was one of the

founders of the Algebra Seminar at the University of Szeged in the early 60's, and he organized the first three international conferences on semigroups in Szeged in 1972, 1976 and 1981. He was an Editor of *Acta Scientiarum Mathematicarum* for 25 years.

In mathematics, his interest was not restricted to semigroup theory, not even to abstract algebra. Beside algebra, he was especially interested in the history and the foundations of mathematics. His lectures in the history of mathematics guided the audience through the cultural history of humanity. One could have hardly found a better Hungarian translator to van der Waerden's *Science Awakening*. György Pollák enjoyed teaching. In his courses held on different mathematical subjects — introductory algebra, problem solving (for future teachers), semigroup theory, ring theory, set theory, mathematical logic, numerical methods — he always aimed at showing how an idea might appear, how a proof can be developed. He never presented any stuff in the same way as he had done it before. He considered each course as a possibility to find new proofs and a new setting.

Although György Pollák's most remarkable results concern varieties of semigroups, see M. V. Volkov's summary in this volume, he obtained interesting results also for groups, rings and graphs. His first contributions to semigroup theory originated in group theory and in ring theory. The description of the semigroups whose proper subsemigroups are groups can be considered as an analogue of the famous Miller–Moreno result, completed later by Rédei and by Olshanskiĭ and Rips. The results on the structure of principal ideal semigroups were applied in the structure theory of inverse semigroups and motivated research in other classes of semigroups. We mention two further little gems of his: a strikingly short inductive proof of the simplicity of the alternating groups, and the notion of the graph of proper subgroups of groups. The universal algebraic flavour of his interest may be traced back to the early 60's, when free algebras still seemed to be quite mysterious. At one of the first meetings of the Algebra Seminar, somebody intended to present the original proof of Fujiwara's proposition: in any class containing nontrivial finite algebras, the cardinality of a free generating set of a free object is uniquely determined. However, after a half a minute, György burst out: 'But this is the same as to say that $c^a = c^b$ implies $a = b$ for any positive integers a, b, c with $c > 1$!' A couple of months later, a paper by Jónsson and Ore appeared which contained, among others, the same observation.

György Pollák had an enormous personal influence on everybody who knew him. His knowledge of literature and classical music was hardly surpassable, his competence in arts, history and philosophy was fascinating, his speed of thinking and way of associating ideas was enviable, and his opinion always gave food for thought. He was a characteristic personality of the intellectual life in Szeged.

Above all, however, he was a modest and open-hearted man, a helpful colleague and respected teacher.

We liked him, we appreciated him, we shall miss him.

Béla Csákány

László Megyesi

Mária B. Szendrei

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