NEWS AND NOTICES

PROFESSOR VLASTIMIL PTÁK DIED

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Professor Vlastimil Pták, an outstanding Czech mathematician, died on May 9, 1999, aged 73.

Vlastimil Pták was born on November 8, 1925 in Prague. He studied mathematics and physics at Charles University where he graduated in 1949 and later obtained the degree of RNDr. (rerum naturalium doctor) in algebra. Then he became a research student of Miroslav Katětov in the Central Mathematics Institute. He received his CSc. degree (equivalent to PhD) and joined the Mathematics Institute of the Czechoslovak Academy of Sciences where he worked for all of his life. In 1960 he defended his thesis for the degree of DrSc. (Doctor of Sciences), in 1965 he was appointed full professor at Charles University. In 1966, professor Pták was awarded the Czechoslovak Federal Prize for his outstanding results in functional analysis. In 1978, he obtained, jointly with M. Fiedler, the National Prize of the Czech Republic.

His scientific interests included topological vector spaces, real analysis, Banach algebras, operator theory, combinatorics, linear algebra and numerical analysis. Altogether he published 2 books and 169 research papers.

Let us mention a few of the most important results of V. Pták. More extensive survey of his results can be found in [Va1], [Va2].

Already the first Pták's results published in his PhD thesis concerning the open mapping theorem brought him an international recognition. The topological vector spaces satisfying the so called B-completeness condition are called Pták spaces.

His subsequent interest in iterative methods led him to formulate the non-discrete induction which he applied to a detailed study of rate of convergence of iterative processes. The results are collecteded in his book with F. Potra [PP].

In the theory of Banach algebras, he obtained a crucial result, called Pták's inequality, which characterizes Hermitian algebras. The characterization is analogous to that of C^*-algebras with the norm replaced by the spectral radius.

Since the very beginning of his scientific career he was interested in algebra. Let us mention his elegant coordinate-free proof of the Jordan form theorem and the investigation of iteration processes in linear algebra, in particular for the case of systems the matrix of which is an M-matrix. The research in this area led him to the notion of the critical exponent of an operator in a finite dimensional Banach space. The whole theory is extremely difficult and the results need deep combinatorial considerations.

Later, Pták combined his interest in operator theory and linear algebra by investigating the Toeplitz, Hankel and Bézout operators and their relations to the Nagy-Foias dilation theory.

Professor Pták had scientific contacts with mathematicians all over the world. He visited several universities in the United States for a longer stay, he spent a year in Great Britain, he had extensive contacts with mathematicians in Germany, Poland, Hungary, Spain, Romania, Russia etc.

His pedagogical activities included teaching at Charles University, organizing as the Head of the Department of Functional Analysis a regular seminar, supervising a great number of postgradual students. He also prepared an advanced textbook [P] on basic notions of operator theory.

Of special importance were his annual Spring Schools of Functional Analysis which took place for about a quarter of century and brought together Czech and Slovak specialists in the field with many foreign mathematicians. This was especially valuable in the time of very restricted scientific contacts.

Professor Pták combined mathematics with deep interests in the art. He loved classical music, was a connoisseur in architecture as well as in history and literature. His linguistic abilities were astounding, covering deep knowledge of old Latin and Greek as well as modern languages (English, German, French, Polish, Russian).

Professor Pták was a great mathematician and a great man. His passing away is an immense lost for his many friends and colleagues.

References

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List of last publications of prof. V. Pták

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[156] Möbius functions of the shift. Linear Alg. Appl. *236* (1996), 45–53.

[157] Diagonal blocks of two mutually inverse positive definite matrices (with M. Fiedler) Czechoslovak Math. J. *122* (1997), 127–134.

[158] A new positive definite geometric mean of two positive definite matrices (with M. Fiedler). Linear Alg. Appl. *251* (1997), 1–20.

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[161] Generating functions and Bézoutians. Math. Bohem. *121* (1996), 183–188.

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[166] Extending the notions of companion and infinite companion to matrix polynomials (with M. van Barel and Z. Vavřín). Linear Alg. Appl. *290* (1999), 61–94.

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