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70th birthday of Professor Ladislav Mišík

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70TH BIRTHDAY OF PROFESSOR LADISLAV MIŠÍK

On May 10th, 1991 Professor RNDr. Ladislav Mišík celebrates his 70th birthday. He was born in Žilina, where he finished also the grammar school. After his leaving examination, he studied mathematics and physics at the Masaryk University in Brno (1938-39) and the Slovak University in Bratislava (1939-1943). He finished his studies by the state examination and until 1962 was an assistant and Assoc. Prof. at the Slovak Technical University in Bratislava. Since 1962 he has been working at the Mathematical Institute of the Slovak Academy of Sciences. He obtained the RNDr. degree at the Charles University in Prague in 1949, the CSc. degree in 1964 and DrSc. degree in 1967.

Although the scientific activity of Prof. Mišík is very large and has a basic role in many areas concerning the development of mathematics in our country, the most important and best known results of L. Mišík belong to the theory of real functions. Prof. Mišík was among the very small number of mathematicians in the world who made important contributions to the differentiation theory in 1960's. Today, there are many more people making important contributions to the subject. Much of the recent work was made possible by, or pointed out, by Mišík's work both the earlier work of his in the early sixties and the later work in the seventies.

Many of his papers deal with the Darboux property of real functions, especially of some types of derivatives, interval-functions and set-functions. He has generalized many results concerning connectivity and the Darboux property of a function of one real variable and real functions defined on a topological space. Those results amplified the earlier results of Z. Zahorski, T. Radakovič, W. H. Yong, C. G. Neugebauer and A. Gleyzar. Relations between the Darboux property of a function defined on a product space and the Darboux property of its sections were studied in Mišík's papers under the assumption that the sections belong to the first Baire class. These researches stimulated further ones carried out by J. S. Lipinski and later by R. O. Davies, Z. Grande and M. Laczko, concerning the measurability of functions whose sections are in the Darboux Baire class one, are approximately continuous and are derivatives. Nowadays the research interests of many mathematicians concern the measurability of a function relative to the measurability of its sections, in the field of research initiated by Prof. L. Mišík.

Professor Mišík's papers on unilateral upper derivatives and unilateral essential derivatives of continuous functions and of the Borel functions improve some results of W. Sierpiński, S. Banach and O. Hájek. We can observe the mastery of generalization in Professor Mišík's papers on maximal additive and maximal multiplicative families for the family of all interval-Darboux Baire one functions. Those articles present improvements upon the results of A. M. Bruckner, J. Ceder and R. Fleissner on functions of one variable. Obviously, as one might expect, the Mišík characterizations of those classes were much more difficult to obtain those on the real line.

Although the theory of real functions presents a substantial part of the scientific work of L. Mišík, it does not exhaust all Mišík's research interests. Another part of his activities belongs to the theory of ordered sets, topology and measure and integration theory.

The topological papers by L. Mišík deal with convergence spaces. In cooperation with Professor Josef Novák he follows the work of the Čech topological seminar in the thirties. He studied e.g. some properties of the Kuratowski closure axiom.

Professor Mišík's importance for the measure and integration theory in Czecho-Slovakia is fundamental. He published many results, e.g. about the Daniell integration scheme, but even more important is his pedagogical and conceptual activity in this sphere. He established one of the first scientific mathematical seminar in Bratislava and owing to his efforts there arose the Slovak scientific school in measure and integration theory. The fundamentals of the study of the ergodic theory and the probability theory in Slovakia were also established in this seminar.

Very important and convincing results were achieved during the fifty years of Mišík's pedagogical activity. It consists of two parts. The first is devoted to the teaching of mathematics at the technical universities. Of invaluable importance for all Czech and Slovak technical universities were the two volume of the textbook written by I. Kluvánek, L. Mišík and M. Švec, where Mišík's ability of precise formulations and clear concepts is displayed. The second part of his pedagogical activity is connected with the Comenius University in Bratislava, where he prepared and realized first courses in many modern domains in the fifties (e.g. the set theory, the measure theory) and during the last three decades he had very successful lectures on the functional analysis. His rich pedagogical and scientific experience has been included in his monograph on functional analysis. He worked also as a supervisor with a remarkable influence on a large group of research workers.

Since Professor Mišík's work shows considerable depth, power and mathematical imagination, it has been influenced a number of mathematicians. Admirable and exceptional is Professor Mišík's activity as a reviewer. Professor Mišík is probably the best mathematical reviewer in Czecho-Slovakia. His devoted and unselfish work has been very fruitful and of great use to many mathematicians, especially to young people.

Upon the occasion of his seventies all these mathematicians as well as the whole Czech and Slovak mathematical community wish Professor Mišík good health and many further successes in his life and work.

B. Riečan

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