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Viktor Beneš, Praha

On December 21st, 2018, a Czech mathematician Ing. Vratislav Horálek, DrSc., passed away. He was born on August 16, 1926 in Roudnice upon Elbe. He graduated in Engineering from the Czech Technical University, Faculty of Special Studies, in 1950 and received Ph.D. in 1961 at the Faculty of Mathematics and Physics of Charles University in Prague and DrSc. in 1969 at the Institute of Physical Metallurgy of the Czechoslovak Academy of Sciences in Brno. From 1952 till his retirement in 1991, V. Horálek was employed in the Division of Applied Mathematics of the National Research Institute for Machine Design in Prague, first as senior research worker, later as the Head of the Research Group on Stochastic Analysis, and finally he was appointed the Head of the Division of Applied Mathematical Statistics.
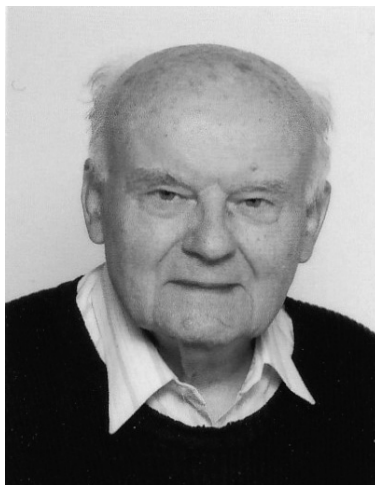
In 1956 V. Horálek became interested in the problem of obtaining information concerning 3D structure of materials from their planar sections. Later on, in 1961, the name stereology was coined for this branch of applied mathematics and the International Society for Stereology was founded. The interest in these areas was so

high that in 1976 the Stereological Section of the Czech Cybernetical Society was established and V. Horálek was elected as its first chairman and kept this position till 1991.

In his research work he was concerned with problems in probability theory, mathematical statistics, stochastic geometry, image analysis and stereology, as well as in their applications in solving technical problems from metallurgy, metallography, drying technologies, metrology, methodology of statistical process control, etc. The generalization of Johnson-Mehl tessellation model to the inhomogeneous case and the analysis of the inhomogeneous birth-immigration-death processes belong to his most important mathematical achievements. He published 269 scientific and professional papers, some of them in top journals (e.g. Advances in Applied Probability, Journal of Microscopy, Metrika, Materials Characterization). Among them 43 were presented at international conferences or seminars and 120 as research reports. The Czech Academy of Sciences awarded him in 1993 by the Golden Plaque of Bernard Bolzano for Merits in Mathematical Sciences.

It should be stressed that another working area of V. Horálek was introducing statistical methods in standardization of measurements in materials production and technology. From 1954, he cooperated with the Czech Office for Standards, Metrology and Testing (COSMT) in preparing Czech Standards, and received ISO Standards (prepared in ISO/TC69 Applied Statistics) as ČSN ISO Standards. After establishing TC4: Applied Statistics in 1969, he was elected to the position of Chairman of TC 4 at COSMT. He continued these activities after retirement until his death. During these 49 years, he prepared in total 75 ČSN and ČSN ISO Standards on applied statistics. He has got the Prize of Dr. Žaludová for the lifelong contribution in quality control in 1999 and the Prize of Vladimír List for the long-standing and significant part in the development of standardization in technology in 2006.

Vratislav Horálek also paid attention to education of young specialists. He commanded a natural respect by his expert knowledge, convincing manner as well as a humane attitude to people.

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