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80TH BIRTHDAY OF PROFESSOR ANTON HUŤA

Prof. RNDr. Anton Huťa, DrSc., the founder and a living legend of numerical mathematics, applied mathematics and mathematical statistics in Slovakia, was born 80 years ago, on July 3, 1915.

He studied insurance mathematics at the Czech Technical University in Prague and mathematics and physics at Charles University. After the abolition of Czech universities in 1939, he finished his studies at Comenius University in Bratislava. In 1943 he took the academic title of RNDr., in 1961 the scientific degree of CSc. (= PhD.), and in 1991 he obtained the degree of DrSc., the highest scientific degree in Czecho-Slovakia. For more than half a century, he was a teacher at the Faculty of Science, and later the Faculty of Mathematics and Physics, of Comenius University. For several years he simultaneously worked at the Slovak Technical University in Bratislava, where he led the Institute of Applied Mathematics. He was an assistant and for years a collaborator of the nestor of Slovak mathematicians academician Jur Hronec.

Scientific activities of Prof. Huťa have been mainly concentrated to Runge-Kutta (RK) methods of higher orders. He was a pioneer in this area and he achieved an international reputation. His papers [10] and [11] evoked an extraordinary reaction, at least 50 citations in foreign books and journals. For instance, J. C. Butcher devoted a special paper to his scientific results: *On the integration processes of A. Huťa*, J. Austral. Math. Soc. **3** (1963), 202–206.

For determining the parameters of RK formulas of the 6th order, it was necessary to solve a system of 31 non-linear equations with 36 unknown variables. It was shown that the free parameters can be chosen in such a way that the weights in the formula of the corresponding RK method would be the Newton-Cotes numbers. A significant advance was achieved by discovering the possibility of multiple transformation of the conditioning equations and subsequent decreasing of their grades and partial linearization of corresponding equations.

Prof. Huťa introduced such a convenient notation that the indices determine the genesis of a given element. On the base of the notation, there was discovered an algorithm for deriving generalized explicit RK formulae, published jointly with Prof. Karl Strehmel. Together with Doc. RNDr. V. Penjak, CSc., Prof. Huťa derived formulae of the 7th order (solving 59 non-linear equations with 66 unknown variables), and at the age of 78 years, he published with his son RNDr. A. Huťa, CSc. formulae of the 8th order (will be appeared). More than 15 other mathematicians were supervised by Prof. Huťa, e.g., V. Ficker, M. Vencková, V. Jukl, A. Valková, E. Füllekyová, Z. Schneider, J. Štekauer, J. Dančo. In mathematical statistics, doc. RNDr. F. Lamoš, CSc. achieved his scientific degree under supervision of Prof. Huťa.

Very successful was also a cooperation of Prof. Huťa with specialists in medicine, e.g., he created, in cooperation with academician L. Dérer a mathematical model of biorythms, and he also cooperated with Prof. M. Mikulecký. For many decades, he was a scientific expert for numerous scientific institutions (among them also institutes of the Slovak Academy of Sciences). He took part in many scientific conferences, worked as a chairman or a member of many scientific committees, editorial boards etc.

Prof. Huťa devoted his whole soul to the world of numbers and mathematical formulae, to boring and not very attractive (for some people) but very useful world of numerical mathe-

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ematics. His love to the magic language of numbers brought good fruits. He also inculcated this love to a big number of his students.

On the occasion of Prof. Huťa's jubilee, we wish him, on behalf of his former fellow workers and students, much pleasure, good health and much energy for the future.

Anna Valková

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