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## Obituary

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### **István Fenyő in Memoriam**

L. PAGANONI

István Fenyő was born in Budapest on March 5, 1917. The cultural and family environment in which he was brought up proved particularly stimulating for his human and intellectual development. From a very early age, he displayed keen interest in all art forms as well as in many humanistic and scientific disciplines.

He completed his university studies at Budapest's Pázmány Péter University. In 1939 he received a High School Teacher's Certificate in Mathematics and Physics under the guidance of L. Fejér and in 1942 a Diploma in Chemistry. In 1945 he received his Ph.D. in Mathematics, presenting a thesis entitled "On the theory of mean values".

He went through all levels of his academic career at the Technical University in Budapest: Assistant Professor from 1945 to 1950, Extraordinary Professor from 1950 to 1960, and subsequently Full Professor until he retired in 1984. In addition, he was Visiting Professor at the universities of Rome and of Waterloo, Ont., Canada. For several years he did research and taught at the universities of Rostock, Milan and Brescia.

He contributed as member of the editorial board to several international journals of great prestige among which there was "Aequationes Mathematicae".

He took active part in numerous international conferences, gave lectures and talks in many European countries, in Canada and in the United States.

He died in Budapest after a short but inexorable illness on July 28, 1987.

An extremely cordial man, full of drive and initiative, he was a source of constant inspiration to those who had the good fortune of knowing him. He spoke several languages fluently and therefore was able to communicate directly, sharing the richness of his mind, with people of varied linguistic background. A brilliant conversationalist, with his lively anecdotal style he was able to captivate all who had the pleasure of talking to him.

Everything attracted and excited his curiosity, his insatiable thirst for knowledge and his love of life. Mathematics, technics, art, music, really every expression of human creativity, fascinated him to the extent of desiring to master whatever subject he explored. Indeed he was an extraordinarily eclectic spirit, as witnessed by the interest which, in his later years, he expressed in the mathematical aspects of Leonardo da Vinci's manuscripts. Such investigative curiosity is also clearly reflected in his mathematical studies. The soundness of his basic culture, coupled with his innate curiosity, led István Fenyő to seek the solution of problems in various areas of mathematics. Therefore it is not surprising to find, in addition to his scientific works in Mathematical Analysis, also works on the History of Mathematics, on the Philosophy of Science, and countless others on the application of mathematics to Medicine, Engineering and Computer Science.

He was particularly interested in applying mathematical results to other scientific disciplines, as he was in popularizing the most significant results of certain mathematical theories. This aspect of his activity is borne out by several survey articles and books. His life-long interest in the theory of integral equations enabled him to achieve many important results in this area. A fruit of the knowledge acquired in this field is the monumental work, in four volumes, joint with H. W. Stolle, entitled "Theorie und Praxis der linearen Integralgleichungen".

He also did a systematic study of the Distribution Theory and Mikusinski's Operational Calculus, and achieved significant results, among others, on the connections between these two theories. Professor Fenyő also applied Distribution Theory to problems on Differential and Integral Equations. Particularly noteworthy

are his contributions in determining, by means of iterative processes, approximate solutions of linear equations in abstract spaces.

Similarly numerous and important are his achievements in the field of Functional Equations. His idea of applying Distribution Theory to solve Functional Equations turned out to be very interesting and fruitful. In this context, he also studied the theory of mean values and in latter years he obtained many interesting results on Cauchy's non-homogeneous equations and on a generalization of a classic theorem of Hyers.

The idea of characterizing elliptic functions by means of Cauchy's non-homogeneous equation had a particular appeal to him. A project that, due to his unexpected death, he wasn't able to accomplish, was the complete reformulation of the theory of elliptic functions, drawing their properties from the functional equations which characterize them.

All those who attended will remember his tireless activity and stimulating participation in almost all the International Symposia on Functional Equations. Nobody will ever forget his enthusiasm when coming up with new problems and suggesting possible ways of solving them.

István Fenyő will be missed by all those who had both the privilege and the good fortune of being his students, his colleagues, his friends.

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