

**OBITUARY****Prof. RNDr. Milan Mareš, DrSc.****1943 – 2011**

Milan Mareš, Leading Researcher-Specialist at the Institute of Information Theory and Automation (ÚTIA) of the Academy of Sciences of the Czech Republic in Prague, and an outstanding figure in the fields of fuzzy quantities, fuzzy information theory and fuzzy game theory, passed away unexpectedly on July 25, 2011. He was born on May 30, 1943 in České Budějovice, Czechoslovakia. After attending elementary and secondary schools in České Budějovice,



he graduated in Probability Theory and Mathematical Statistics at Charles University in Prague, Faculty of Mathematics and Physics, in 1965. He received Candidate of Science and Doctor of Science degrees from Czechoslovak Academy of Sciences, Prague, in 1975 and 1990, respectively, with specialization in game theory. He became Associated Professor (thesis: Computation with Vague Numbers) and Full Professor (area of study: Informatics – Theoretical Informatics) at Charles University in 1997 and 2001, respectively. He had been a key researcher at ÚTIA since 1966 and he served as ÚTIA Vice-Director for Research in the period June 8, 1990 – May 31, 1998, and as ÚTIA Director in the period June 1, 1998 – April 30, 2007. Moreover, he held part-time positions at South Bohemian University in Jindřichův Hradec, Faculty of Management, and in České Budějovice, Faculty of Natural Sciences. His teaching activities covered, among others, Czech Technical University in Prague (Faculty of Electrical Engineering and Faculty of Nuclear and Physical Engineering), University of Economics, Prague (Faculty of Informatics and Statistics), Charles University (Faculty of Social Sciences) and South-Bohemian University (Faculty of Natural Sciences).

In the early 1980s, Milan Mareš recognized the potential of fuzzy set theory for the modeling and processing of vague information sources. After several contributions he summarized his Fuzzy Quantities Theory in monograph “Computation Over Fuzzy Quantities” published by CRC-Press, Boca Raton, Florida in 1994. This monograph was cited in more than 130 scientific works by renowned authors, among others L. A. Zadeh, G. J. Klir, D. Dubois, E. E. Kerre, and B. De Baets

Another field deeply influenced by Milan Mareš is game theory. His first monograph on this topic, “On Bargaining in Games”, appeared in *Kybernetika* 12 (1976) as Supplement in Issues 2–6. Fuzzy approaches to coalitions in game theory resulted in his next monograph “Fuzzy Cooperative Games: Cooperative Behaviour with Vague Expectation” published by Physica Verlag, Heidelberg, in 2001. This monograph has more than 60 known citations. Recently, he started a deep research in the area of information measures and uncertainty of particular symbols, publishing a few papers in this field; but his work in this direction was interrupted by his

unexpected death.

Milan Mareš published about 20 chapters in monographs and edited volumes, 190 papers in scientific journals, and 60 conference contributions. It is possible to find more than 230 citations of his publications in Google (excluding self-citations).

However, a strict numerical evaluation of Milan Mareš scientific work can never express his fundamental contribution and influence in the field of information theory and fuzzy mathematics. Moreover, it is impossible to describe in few lines the great charm of Milan Mareš not only in personal communications, but also when presenting deep mathematical results and theories. Many people, even those who are far from mathematics, have enjoyed his popularization contributions in journals and newspapers, exceeding 150 in total. Especially popular are his two books published only in Czech to date, namely “The Appropriate Words, or How to Talk about Mathematics, Cybernetics and Informatics” (“Slova, která se hodí, aneb jak si povídat o matematice, kybernetice a informatice”, in Czech), Academia, Prague 2006, and “Stories of Mathematics” (“Příběhy matematiky”, in Czech), Pistorius and Olšanská, Příbram 2008. His third popularization monograph concerning the possible abuse of mathematical statistics in the real life remains uncompleted.

Milan Mareš’ work was awarded, among other distinctions, by Collegium for Theoretical Cybernetics’ Award for Research Activity (1978, Prague), by Czech Literary Fund Award for Publication (1981, Prague), by Honorable Medal of Faculty of Mathematics and Physics of Charles University (1998, Prague); he was Honorary Member of Czech Society for Cybernetics and Informatics (2006, Prague).

Milan Mareš was a member of several scientific organizations (for example, European Academy of Sciences and Arts, AMS, EUSFLAT, Czech Society for Cybernetics and Informatics, Union of Czech Mathematicians and Physicists), as well as of several non-governmental organizations (for example, Czech Association for the Club of Rome, Slovak Association for the Club of Rome, Czech Board for the Information Society, Czech Committee for UNESCO). He was a member of Editorial Board of *Kybernetika* since 1992, and its Editor-in-Chief since 1999. He served as a member in several other editorial boards of journals such as *Problems of Control and Information Theory*, *International Journal of Intelligent Systems and Information Processing*, *Open Cybernetics and Systemics Journal*, *Prague Economic Papers* and *The Space* (*Vesmír*, in Czech). Moreover, he was a member of 10 scientific boards, including among others, Black Sea University, Constanca, Romania, University of Economy, Prague, T. Baťa University, Zlín, Charles University, Faculty of Mathematics and Physics, Prague, Czech Technical University, Faculty of Nuclear and Physical Engineering, Prague, South Bohemian University, Faculty of Natural Sciences, České Budějovice.

Milan Mareš was a great person with an unforgettable charm and humor. He loved his family and his country, enjoying, among others, trips with his three granddaughters. Milan was a man of many plans and ambitions, who succeeded to achieve a lot in his life. His work and attitude inspired many. We lost in him a nice person, great friend and a fine colleague. We were all struck when he suddenly passed, and we all feel a big gap. We miss you and we will honor your memory, dear Milan!

*Radko Mesiar*