

IN MEMORY OF YAMILOV RAVIL ISLAMOVICH



On June 15, 2020 Ravil Islamovich Yamilov, Dr.Sc., suddenly died at the age of 64 while at work in the Institute of Mathematics with Computing Centre of the Ufa Federal Research Center of the Russian Academy of Science. He was a Doctor of Physico-Mathematical Sciences, a leading scientific researcher of the Department of Mathematical Physics.

His death tore from our ranks a talented mathematician, a world recognized scientist who made important contributions to the theory of integrable systems. He devoted his life to mathematics and was a modest man of strong principles.

Ravil was born on April 25th, 1957 in Ufa. In 1981 he graduated from the mathematical faculty of the Bashkir State University. From 1981 till 1984, he was a PhD student in the Department of Differential Equations. His scientific supervisor in Ufa was Alexei Borisovich Shabat, an outstanding mathematician, one of the founders of the modern theory of integrability. Shabat's influence was determining in forming the future scientific interests of Ravil. Ravil graduated in 1984 as a Candidate of Sciences (equivalent to a PhD) awarded by the Leningrad Branch of the Steklov Mathematical Institute, Soviet Academy of Sciences, Leningrad, USSR, with the Ph.D. thesis "Discrete equations of the form $du_n/dt = F(u_{n-1}, u_n, u_{n+1})$ with an infinite number of local conservation laws".

After his PhD, he started working in the Department of Physics and Mathematics of the Bashkir Branch of the Academy of Sciences of

the USSR. Subsequently this department became the Institute of Mathematics. He worked in this organization all his life. In 2000, Ravil obtained his Habilitation (Doctor of Science), at the Institute of Mathematics, Ufa, Russian Federation, with the thesis "Symmetry approach to the classification from the standpoint of integrable differential difference equations. Transformation theory"

Ravil actively collaborated with many of the leading specialists in the theory of integrability. He was invited to research collaborations at the Universities of Rome, Leeds, Cambridge, and Montreal.

The scientific activity of Ravil was devoted to studying integrable nonlinear equations of mathematical physics. While still a third year undergraduate he participated in a scientific seminar lead by Shabat and was intensely involved in this scientific enterprise. His first scientific publication was the result of this activity. He studied the problem of symmetry classification of integrable differential-difference equations of the Volterra and Toda type. Already these first results in this field brought a worldwide recognition to Ravil. His contribution to the field of discrete and semi-discrete integrable equations is of lasting importance. Nowadays this field of research in the theory of nonlinear integrable systems is one of the most active ones. Many of the publications appearing in this field contain numerous citations to the works of Ravil.

Ravil's results on integrable nonlinear partial differential equations are widely known. We mention here the classification of systems of the nonlinear Schrodinger equation kind, multi-dimensional integrable equations, and Backlund transformations.

Ravil published 74 papers in the integrability theory, many in collaboration with the leading researchers of the field, as one can see from his page in Google Scholar with so far 2734 citations. A book by Ravil will shortly appear, published by the AMS, written in collaboration with D. Levi (University Roma Tre) and P. Winternitz (Montreal University).

The influence of the classification results obtained by Ravil will not only be lasting, but is sure to increase in mathematical physics and in all of mathematics.

We keep the memory of R.I. Yamilov in our hearts and minds.

V.E. Adler, I.Yu. Cherdantsev, R.N. Garifullin, E.V. Ferapontov, A.P. Fordy, I.T. Habibullin, D. Levi, I.Kh. Musin, A.V. Mikhailov, F.W. Nijhoff, R.A. Sharipov, V.V. Sokolov, B.I. Suleimanov, A.V. Zhiber, P. Winternitz, R.S. Yulmukhametov