



Anatoly Vasil'evich Zhiber
(to 70th anniversary)

On 18th of June, 2016, there was the 70th birthday of a talented mathematician and splendid teacher, a leading scientific researcher of the Institute of Mathematics of Ufa Scientific Center of RAS, a doctor of physical and mathematical sciences, professor Anatoly Vasil'evich Zhiber.

Anatoly Vasil'evich was born on June 18, 1946 in Kazakhstan, in the village Kolkhoznoe of Karaganda region.

In 1969 he graduated from the mechanical-mathematical faculty of Novosibirsk State University; he defended his diploma thesis under the supervision of docent A.B. Shabat at the department of differential equations.

In 1969-1971 he did military service in Soviet Army. After the military

service, he worked as the senior geophysicist-interpreter in the Computer Center of Siberian Branch of Academy of Sciences of USSR.

In 1973, he moved to Ufa and began working at the chair of mathematics of Ufa State Aviation Technical University. He defended his PhD thesis entitled “Cauchy problem for a class of semilinear system of differential equations” in Moscow Institute of Electronics and Mathematics in 1975. In 1994 he defended his Habilitation thesis in the Institute of Mathematics and Mechanics of Ural Branch of RAS, Ekaterinburg.

A.V. Zhiber is one of the leading specialists in the field of modern group analysis of differential equations. In his research he achieved important results for nonlinear hyperbolic equations and two-dimensional dynamical system of equations:

- He selected a class of nonlinear systems of Schrödinger type equations, a solution to the Cauchy problems for these systems gets a singularity in a finite time;

- He obtained complete lists of Klein-Gordon equations and their generalizations possessing higher symmetries (jointly with A.B. Shabat);

- He made a symmetry analysis of the differential equations describing wave processes;

- He established a constructive criterion for the Darboux integrability of differential equations in terms of higher Laplace invariants; he solved the classical problem on counting a rather large class of nonlinear hyperbolic Liouville type equations and proposed a new method of constructing general solutions by using higher symmetries; he proposed a generalization of Laplace cascade method of integration scalar hyperbolic equations for the systems of equations (jointly with V.V. Sokolov);

- He found explicit formulae of generalized Laplace invariants for two-dimensionalized Toda chains defined by Cartan matrices of simple Lie algebras;

- He proposed a new approach to classification integrable nonlinear equations based on studying the structure of the characteristic Lie algebra;

- He obtained the criterion for Darboux integrability for two-dimensional dynamical systems of equations. He described the class of exactly integrable models possessing the complete set of first and second order integrals;

- He obtained explicit solutions to Goursat problems for linear hyperbolic systems of equations with zero generalized Laplace invariants.

A.V. Zhiber works fruitfully and successfully with young people. Under his supervision, more than thirty diploma theses and magister theses

were defended. There are six PhD among his pupils. Anatoly Vasil'evich is a professor of Bashkir State University and Ufa State Aviation Technical University, he is the author of several textbooks and scientific monographs.

A.V. Zhiber actively participates in the social life of the mathematical community in Ufa, he is a member of the editorial board of "Ufa Mathematical Journal". He also a member of dissertation councils in Institute of Mathematics and Ufa State Aviation Technical University. He is an expert of Russian Foundation for Basic Researches and Russian Science Foundation.

We congratulate Anatoly Vasil'evich on his nice anniversary, wish him a strong health, happy family and new creative successes!

Editorial board of "Ufa Scientific Journal"