Nugzar Skhirtladze

Nugzar Skhirtladze was born on November 5, 1944. After graduating from school with a gold medal in 1961, he enrolled in the Faculty of Physics at Tbilisi State University, where he graduated in 1966 with a specialization in theoretical physics. He finished a post-graduate course there. He worked for TSU Academician I. Vekua Institute of Applied Mathematics from 1972 to 1994. He was a junior scientific worker, deputy head of the Numerical Methods Department, learned secretary, and leading scientific worker at various times. In 1980, he successfully defended his candidate's thesis in computational mathematics. He was the head of TSU's teaching-methodical department from 1994 to 2006. From 2000 to 2006, he was the head of TSU's Department of Mathematical Modeling, which he founded. Since 2007, he has been working at Caucasus University, which was founded with his own participation; Currently, he is the vice-president in the field of education, professor and head of the mathematics department.

Nugzar Skhirtladze has written (co-written) over 80 works consisting of two monographs, eight textbooks, and two supplementary textbooks.

Nugzar Skhirtladze's primary scientific interests are in the development of mathematical models, the development of efficient computational algorithms, and their application in physics and engineering-technical fields. At the same time, he is hard at work researching the theoretical and practical aspects of reforming and improving higher education.

Nugzar Skhirtladze's studies are typically motivated by practical requirements.

Nugzar Skhirtladze has helped develop analytical and numerical methods for building and testing automodel solutions for gas dynamics problems. His proposed description of the effects of three-dimensionality in one-dimensional models with fictitious sources of mass, momentum, and energy (clamps) [1] has received widespread acceptance and has been reflected in a number of publications, as well as a monograph published with co-authors [2]. And his 2017 article [3] is devoted to the algorithm for constructing automodel solutions of general evolutionary equations.

Nugzar Skhirtladze has given special consideration to the training of highly skilled professionals throughout his career. He led the transition to the two-level education system and was the driving force behind numerous breakthroughs in the reform of university education while serving as the head of TSU's teaching-methods division. Works of programmatic importance [4], [5] and a book chapter titled "Strategic models of high school development" [6] are also included in this time frame. The book that was written with his cooperation details the vicissitudes and outcomes of the reforms implemented at TSU [7].

It is worth noting the success and acclaim of the textbooks compiled by N. Skhirtladze and his co-authors for the in-depth teaching and practical application of the new world cognition methodology - mathematical modeling and computer experimentation. They are as follows: [8], [9], [10], [6].

Precalculus, Calculus, Linear Algebra, and Scientific Calculations make up the corpus of mathematics university courses for students in non-special educational programs that are approved and widely used in many universities in Georgia. N. Skhirtladze, professor of the Mathematics Department of Caucasus University, is directly involved in and leads these courses

In addition to being a scientist and an administrator, Nugzar Skhirtladze actively promotes science. The co-authored publications "Model+algorithm+program=informatics" [15] and "Рассказы об информатике" [16] are two examples of this.

5 physics-mathematical sciences candidates and 8 master's degree candidates in informatics, applied mathematics, and mathematical models were trained under his direction.

To improve the standard of higher education, N. Skhirtladze is actively involved in the work of the authorization (2018, 2020) and appeal councils (2016, 2021).

N. Skhirtladze is a laureate of the TSU Young Scientists Prize (2002), the TSU Scientific Prize (1998), and the Order of Honor (1977).

Appendix:

[1] Об автомодельных решениях уравнений газовой динамики с объемными источниками и стоками, დაბეჭდილი, Сообщения АН ГССР, т.90, №3, Тбилиси, “Мецниереба”, 1978, 549-552

[2] Задача о поршне в газе с источниками и стоками (автомодельные решения), დაბეჭდილი, Монография, “ТГУ”, Тбилиси, 1986, 1-239 (Е.И. Леванов, Н.А. Дарьин, П.П. Волосевич)

[3] On one algorithm for constructing auto model solutions of evolutionary equations, printed, collection of scientific works of Caucasus University, #8, 2017, 17-30

[4] On licensing, attestation and accreditation of higher education institutions, printed materials of the scientific-methodological conference "Higher education reform in Georgia: achievements, problems, perspectives", TSU, Tbilisi, 2001, 78-92

[5] Classical university education modernization issues, printed, collection of scientific works of the first international scientific-methodological conference "Medicine in classical university education", 2002, 17-21

[6] Foundations of decision-making theory and their application in social sciences, printed, textbook, "TSU", Tbilisi, 2003, 480 (G. Beltadze, H. Meladze)

[7] University at the turn of the century, printed, monograph, Meridian, 2018, 181 (E. Kopaliani, P. Margvelashvili, N. Skhirtladze, A. Khelashvili, T. Khurodze)

[8] Basics of applied mathematics, printed, (handbook for students of TSU), Tbilisi, 2000, 261 (H. Meladze) (awarded TSU scientific prize)

[9] Fundamentals of Computational Mathematics. Part I. Theory of errors, linear algebra, nonlinear equations, printed, textbook, "TSU", Tbilisi, 2003, 347 (H. Meladze, M. Menteshashvili, N. Mchedlishvili)

[10] Fundamentals of Computational Mathematics. Part II. Interpolation and approximation of functions, numerical production, numerical integration, printed, textbook, "TSU", Tbilisi, 2005, 274 (H. Meladze, M. Menteshashvili)

[11] Precalculus, printed, textbook, "Caucasus University", Tbilisi 2015, 142 (G. Lobjanidze, N. Mchedlishvili, T. Jangveladze)

[12] Calculus, printed, textbook, "Caucasus University", Tbilisi 2011, 2015, 2022, 431 (G. Lobjanidze, N. Mchedlishvili, T. Jangveladze)

[13] Linear algebra, printed, textbook, "Caucasus University", Tbilisi 2015, 154 (G. Lobjanidze, N. Mchedlishvili, T. Jangveladze)

[14] Scientific calculations, printed, textbook, "Caucasus University", Tbilisi 2017, 167 (G. Lobjanidze, N. Mchedlishvili, T. Jangveladze)

[15] Model + algorithm + program = informatics, printed, auxiliary manual, "TSU", Tbilisi, 1999, 1-239 (H. Meladze, I. Bliadze, R. Bochorishvili, P. Tsereteli)

[16] Рассказы об информатике, დაბეჭდილი, დამხმარე სახელმძღვანელო, Баку, Издво Чашыоглу, 2005, 242 (Г.В. Меладзе, А.А. Велиев, В.Э. Садыхов, П.А. Церетели)