GABDULHAEV BILSUR GABDULHAEVICH AND HIS SCIENTIFIC HERITAGE

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Gabdulhaev Bilsur Gabdulhaevich (1936–2008) was the founder and head of the Theory of Functions and Approximations Department in KSU (1988–2008), Doctor of Physics and Mathematics (1986), Professor (1987), Corresponding Member of the Academy of Sciences of the Republic of Tatarstan (1992), Honored Scientist of the Republic of Tatarstan (1997), a member of the Board of Governors of the American Biographical Institute, USA (1997).

He published about two hundred research papers, three monographs and several review papers on contemporary problems of functions and approximations theory, functional analysis and integral equations, as well as several textbooks.

His scientific research was devoted to optimal methods for solving operator equations.

Gabdulhaev Bilsur Gabdulhaevich, Doctor of Physics and Mathematics, Professor of Kazan University, was born on the 29th of October in 1936 in Chistoprudnoe village of the Kurgan region. As the family came from the village of Yangulovo, the Baltasinsky district of Tatarstan, they returned to their homeland. He left school in the village of Yangulovo, the Baltasinsky district, and entered
the Kazan Agricultural Institute in 1955. There, he attended lectures delivered by the prominent Tatar mathematician Shaidukov Gumer Mursaidovich. The teacher identified his student’s talent for mathematics and invited him to Kazan University. At his suggestion, in 1956, B. Gabdulhaev, having successfully passed the exams, became a student of the Mathematics Department at the Physics and Mathematics Faculty of Kazan University. From that time, his fate was inextricably linked with Kazan University.

From his university years, B. Gabdulhaev was actively engaged in scientific research under the guidance of Prof. B. Gagaev (1897–1975), the head of the Mathematical Analysis Department and a prominent scientist. After graduating from the university in 1961, he did a postgraduate course. Five months later, at the suggestion of his scientific supervisor, he began to work as an assistant in the Mathematical Analysis Department and got a position at the Correspondence Department of Graduate School. From that time, for many years, Bilsur Gabdulhaev taught mathematics to university students.

In 1966, he defended his thesis on the subject “Some questions of the theory of approximate methods and their applications to the numerical solution of singular integral equations”. The supervisor and reviewers highly appreciated the work, and V. Ivanov, a Corresponding Member of the Academy of Sciences of the USSR, even suggested presenting it as a doctoral dissertation in the same year. However, B. Gabdulhaev was too modest and refused this offer.

In the 1970s, B. Gabdulhaev was an assistant professor at the universities of Sofia and Plovdiv in Bulgaria. He also collaborated with the Bulgarian Academy of Sciences. In Bulgaria, there are his disciples who prepared their candidate and doctoral dissertations under his guidance.

One of the results of B. Gabdulhaev’s versatile research work is a functional analysis of the general theory of approximate methods. This theory can be used with respect to broad classes of operator equations, their problem of solving can be posed both correctly and incorrectly. A researcher, aiming to solve similar equations which are widely used in practice, created a special optimal apparatus of polynomial and spline approximations of functions in the spaces of Helder, Nikolsky, and Sobolev. They are used to create optimal quadrature and cubature formulas for calculating optimal regular and singular integrals. The results of these studies were described in numerous articles and three monographs ([Gabdulhaev, Optimalnye approksimatsii], [Gabdulhaev, Konechnomernye approksimatsii], [Gabdulhaev, 1994], [Gabdulhaev, 1995]).

In 1986, B. Gabdulhaev presented his doctoral dissertation at the Institute of Mathematics of the Academy of Sciences of the Ukrainian SSR (Kiev) on “Optimal approximations of solutions to linear problems and direct methods for solving singular integral equations”. The scientist published more than 50 articles and a monograph in this area. Prof. S. Mikhlin, an official opponent of the work and a major expert in computational methods and mathematical physics, noted that this dissertation made a huge contribution to mathematics.

B. Gabdulhaev understood the importance of computer technology in scientific research at its initial stage, and the first computer class at the Faculty of Mechanics and Mathematics was opened at the expense of an economic contract headed by him. Due to his efforts, the Department of the Theory of Functions and Approximations was created in 1988. One of the priority tasks at the new department was to implement computer technology in scientific and pedagogical activities of the faculty. B. Gabdulhaev was the head of this department till the end of his days.

The scientist paid great attention to the education of the young generation, especially the involvement of young people in scientific research. In 1974, the work of his scientific school began with scientific seminars “Theory of approximation and its applications”. In addition to students from Kazan, this event, scheduled at four every Thursday, was attended by his students from the cities of the Soviet Union such as Novosibirsk (Russia), Chisinau (Moldova), Dushambe (Tajikistan), Kiev, Kharkov, Odessa (Ukraine), Minsk (Belarus). B. Gabdulhaev also supervised the work of foreign postgraduates. In total, he prepared forty candidates of science and four doctors of science.

For ten years (1998-2008), the scientist was a member of the editorial board of the international journal “Izvestiya Vuzov. Maths” (Russian Mathematics), and in 1970-1980, he was a deputy editor-in-chief of this journal. B. Gabdulhaev’s students noted his thoroughness in writing research papers and in evaluating the results found. His favorite expression was “Even if I don’t know exactly how to work, I know exactly how not to work.”

In 1992, B. Gabdulkahev was elected a Corresponding Member of Tatarstan Academy of Sciences and acted as the chairman of the Scientific Council for Mathematics. For the past ten years he
was the chairman of the Scientific Council for Mathematics and Mechanics.

In 1996, by the decision of independent experts from various countries, B. Gabdulhaev was recognized as a person who had achieved outstanding success in the field of higher mathematics, which was supported by the American Biographical Institute (ABI), he was recommended to be included in the “International Directory of 500 Influential Individuals” in the “Science” section and awarded the US ABI gold medal.

The scientist had many achievements and discoveries in the field of science. Today, his students are all over the world. The motto of my mentor, to which he was faithful all his life, was “Do good and hide it in the water”.

The works of B. Gabdulhaev who imparted quality knowledge to thousands of students have blazed the path of science for many people, for many years in the field of mathematics. Being tough outwardly, he was kind at heart, more demanding of himself than of others, hardworking until the end of his life, my mentor was a real Baltasi man...

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ры боя биреләр, э СССР ФА нең эгъза-корреспонденты В. К. Иванов хәтә анә шул ук елдә докторлык диссертациясе итеп якыларга тәкъylim итә. Ләкин артык тынаң хәм уз-үзенә таалының Б.Г. Габделхәев бу тәкъylimин баш тартар.

1970 нче елдәрда Б. Г. Габделхәев — Бол гарияның София хәм Пловдив университетлары доценты. Ул шулай ук Бол гария Фәннәр академиясе бәлән хәмәттәшән итә. Бол гарияда анны житкәчелегендә кандидатлык хәм докторлык диссертациялары якылган шәкертләре бар.

Б. Г. Габделхәевнән күпкәрләр фәнни эшчениләргән фонда нәтижәләренең бәрәс — фәннааның аналык ысулдәрләренең гомуми теориясе. Бу тәртик Trọng эмдәләр ичәләр иләр оператор тигезләмәләренө кәзәләр үзүнәр тәркемендә кертә ергә. Бу эләнләрнән нәтижәләр күп мәсьәләләр чишелешләре оптималь институтында (Киев) Габделхәев Б. Г. монографиядә чагылыш нәтижәләре күренекле уңышлар күренә. Бу күп мәсьәләләр оптималь квадратур һәм кубатур үзенәргә күренекле уңышларга ирешкән кешә дип табылар. Б. Г. Габделхәев булаңы киң куллана һәм докторлык диссертацияләре якылган Бол гарияда аның җитәкчелегендә кандидатлык лары доцент.

Галим ул дәвамында (1998-2008) — Халякара «Югары уку йортлары хәбарләре. Математика» (Russian Mathematics) журналынан редколлегия эгъзасы, э 1970–1980 елларда бу журналның баш редактор күп иләр сүйгән уңышлар үзә.

1992 нче елда Б. Г. Габделхәев Татарстан Фәннәр Академиясының эгъза-корреспонденты булып сыйлана хәм математика буенча Фәннәр совет рәисе вазифаларын, а сәндә ул елдә, математика буенча Фәннәр совет рәисе вазифаларын башкара.

1996 нче елдә тәрелдә иләрләр бойыс экспертиләр карыры нигезендә Габделхәев Б. Г. Америка Биографик Инститүты (АБИ) тарафынан югары математика элеккәнән күренекле унышларга ирешкән кеше дип табыла хәм «Фән» булаңы буенча 500 күренекле кеше Халькара белешмәсәнә ярдәрләр эчкәм ителә, АКШ АБИ ның алтын медале бөтәләргә була. Галимнең биление биргән, күпмәк сәндә хәрәсән, фән юлына.– Янна чыңыл күп уңышлар чыңыл күп уңышлар, күп уңышлар чыңыл күп уңышлар. Зорага өйрәнбәләр буенча өйрәнбәләр буенча өйрәнбәләр.
альп чыккан Б.Г Габделхәевнең математика өлкәсендә башкәргән эшләре але озак еллар галимәрдә майк булып торыр. Тыштан кырыс, дәкин йомлак үзелле, башкаларга карағандә узенә үзбәк таләпчән, гомер ахырына кадәр жигелеп эшләгән чын Балтач ире иде остазым...

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