

**ANATOLY KILBAS's 60th BIRTHDAY:
CONGRATULATION**

Stefan Samko

This is my big pleasure to write congratulation words for my good friend, colleague and coauthor, a member of our "FCAA" Editorial Board, Anatoly Aleksandrovich Kilbas. He celebrates his 60 years jubilee on July 20th, 2008. Being old friends indeed, we seem to have also another jubilee this year, 35 years of our friendship and collaboration.

Anatoly Kilbas was born in Minsk, in Belarusian family. I was happy to be familiar with his parents, his mother the late Tatyana Makarovna, a very delicate woman and the heart of their big family, and the father Alexandr Antonovich, a strong man, well known in the "previous life" in the former Soviet Union, from whom it was always interesting to learn many stories both from his active life and also stories from his hunting, he was a big amateur of hunting.

To his jubilee, Anatoly Kilbas, Head of the Chair of Function Theory at the Department of Mechanics and Mathematics of Belarusian State University, Minsk, came as a renowned expert in fractional calculus, integral equations and special functions.

Anatoly Kilbas entered Belarusian State University in 1966 and ended Master courses there in 1971. In 1973-1976 he continued his education in Post Graduate Studies (known as "aspirantura" in the Soviet system of education) and defended his first scientific degree, called in the Soviet Union as "Candidate of Physical and Mathematical Sciences", nowadays acknowledged as an equivalent of PhD, on June 22 of 1976. His PhD thesis was titled: *"Operators of Potential Type With Power-Logarithmic Kernels and Integral Equations Solved in Closed Form"*, under the supervisorship of Academician of Belarusian Academy of Sciences, Professor Fedor Dmitrievich Gakhov, famous among experts in boundary value problems and singular integral equations by the solution of the Riemann boundary value problem he gave in 1937.

Anatoly defended his Second Thesis "*Fractional Integration Operators. Asymptotic and Composition Properties and Applications*" for the degree of Doctor of Sciences on October 25 of 1995, and took a position of a Full Professor at the Faculty of Mathematics and Mechanics of the same university in July of 1996. After 2002 he is the Head of Chair of Theory of Functions.

This is just a short enumeration of the official part of his CV.

The main scientific interests of Anatoly Kilbas are in Fractional Calculus, both of one and many variables. Yet in his first papers he generalized a certain fractional type integral equation considered in the known book of S.G. Mikhlin on integral equations, to the case of many variables, this generalization being known as the "pyramidal equation". To many experts in this field his name is known by the book:

S. Samko, A.A. Kilbas and O.I. Marichev, *Fractional Integrals and Derivatives. Theory and Applications*. Gordon & Breach Sci. Publishers, 1993.

In the last decade his interests in this area were mainly concentrated around the fractional differential equations, which were in particular shaped in the book:

A. Kilbas, H. Srivastava and J. Trujillo, *Theory and Applications of Fractional Differential Equations*. Elsevier, 2006.

Another field of his interests is in the area of special functions and integral transforms, reflected in another his book:

A. Kilbas and M. Saigo, *H-Transforms: Theory and Applications*. CRC Press, Ser. Analytical Methods and Special Functions, 2004.

Anatoly is a very active, vivid and friendly person. Everything he is doing in his life - working, writing papers or books, or having a rest, playing football - he is doing with pleasure and taste for life. He is liked by people and he has many friends and colleagues-collaborators. Having known Anatoly very close for many years, I saw him angry and discontented probably twice for more than thirty years (and certainly there were reasons for that).

He travels a lot as a visiting professor and/or a colleague invited for joint work. He is often invited for invited talks at conferences. The set of points of his visits seems to be rather dense on the earth: Steklov Institute (Moscow, Russia), Rutgers University (New Brunswick, USA), Dalian University of Technology (Dalian, China), Freie Universitat Berlin (Berlin, Germany), Fukuoka University (Fukuoka, Japan), Friedrich-Schiller Jena University (Jena, Germany), Czech Academy of Sciences (Prague, Czech

Republic), University of La Laguna (La Laguna, Spain), University of Algarve (Faro, Portugal), Instituto Superior Técnico (Lisbon, Portugal), Bologna University (Bologna, Italy), Padova University (Padova, Italy), Aachen Technical University (Aachen, Germany), Yonsei University (Seoul, Korea), Università de Roma La Sapienza (Rome, Italy), Vilnius Institute of Mathematics and Informatics (Vilnius, Lithuania), Wolfram Research Inc., (Champaign, Illinois, USA), Centre for Mathematical Sciences (Pala, India).

Professor Kilbas is a head of scientific school in Belarus in fractional calculus and integral transforms. Among his former students there are 14 PhD who defended their theses under his supervisorship: I.N. Zabello (1985), S.I. Vasilets (1990), A.P. Grinko (1991), S. Bubakar (1992), Din Khoang An (1993), S.A. Shlapakov (1994), S.V. Demianko (2002), L.V. Yarot-skaya (2003), E.V. Gromak (2004), E.K. Schetnikovich (2004), S.A. Marzan (2005), A.A. Koroleva (2006), A.A. Voroshilov (2006), A.A. Titiura (2007).

Anatoly Kilbas is also known as one of the organizers of the *AMADE conferences in Belarus*, which became internationally popular last years.

An actively working mathematician, Anatoly Kilbas is also a sportive person. He likes to play football and plays whenever there is an opportunity for that. At many conferences, where there is a possibility, he plays either for the team of Belarus, or for the team of Mathematical Analysis, or for some other team. In general, he is a big amateur of football, and always impressed his friends by remembering all the important World and European games, including who kicked the ball into the goal and at what minute of the game. He is a good chess player and yet in 1968 he gained a rather high position in official chess ranking. By advice of his supervisor Academician F.D. Gakhov, he chose mathematics instead of chess. As he told to me many times, he never regretted about this choice. Nevertheless, he continues to play chess at various levels, in particular in the chess team of Math. Department of his university.

Anatoly is happy in his family, with his wife Tamara. He has two daughters Aleksandra and Tatyana, a son Andrei and a charming grandson Vladimir.

Active and very enthusiastic in everything, he is doing in mathematics, he always keeps a keen interest to new ideas and new trends in fractional calculus, integral transforms and special functions.

He is in a good shape, both mathematically and physically. I wish him to keep this shape for many decades ahead!