



PROFESSOR IVAN DIMOVSKI - 75th ANNIVERSARY

Professor D.Sc. Ivan DIMOVSKI, Institute of Mathematics and Informatics - Bulgarian Academy of Sciences (B.A.S.), Corresponding Member of B.A.S. and a Member of Editorial Board of our "FCAA" Journal, born on July 7, 1934, had this year his 75'th jubilee.

Prof. Dimovski has more than 90 scientific publications in Bulgarian and international journals, including his monograph by Kluwer, "*Convolutional Calculi*", referred to by other authors more than 500 times. Many papers, theses and monographs by his Bulgarian collaborators and by foreign authors have been inspired by his ideas and results and use them essentially, even some of them containing his name in the titles or in names of notions. Among his contributions is the creation of a Bulgarian mathematical school (8 Ph. D. students, many M.Sc. students and research collaborators), as well as a group of foreign collaborators and followers, in the field of operational calculus and integral transforms.

Prof. Dimovski's basic contributions can be classified in the following domains of mathematical analysis: operational calculus, integral transforms, theory of multipliers of convolutional algebras, expansions in eigenfunctions and associated functions, explicit characterization of commutants and automorphisms in them, linear nonlocal boundary value problems for equations of mathematical physics. His recent papers (some of them with collaborators, are listed below) show the continuation and further developments and applications of his approach and ideas.

In his young years, Prof. Dimovski translated more than 50 famous mathematical books from foreign languages (English, German, Russian and French) for the audience of Bulgarian mathematicians.

Another trend of his activities is the field of "school mathematics" - as a lecturer for pupils prepared for mathematical olympiads, and as author of many classroom books on elementary mathematics.

For the scientific achievements and contributions to Bulgarian science, Prof. Ivan Dimovski was awarded the Academic Prize for Mathematics on the name of “Nikola Obrechhoff” (1979), the honor medal “Marin Drinov” of Bulgarian Academy of Sciences (2004), as well as other international awards, like one from the Ukrainian Academy of Sciences. For his new approach to the operational calculus, he is often and well-deserved titled, between colleagues in the field, as “the Godfather of the Convolutional Calculus”.

For the detailed CV of Prof. Dimovski, Annotation of his contributions, full list of articles (more than 90), the readers are referred to a previous issue of same journal: *Fract. Calc. Appl. Anal.* **7**, No 3 (2004), pp. 247-260; “On the Occasion of Prof. I. Dimovski’s 70th Anniversary”, available online at: http://www.math.bas.bg/~fcaa/volume7/fcaa73/73-dimovski_cv_short.pdf

Below we give a brief outline of his monograph and his recent papers (2004-2009) only.

I would like to forward my personal congratulations, and also on behalf of the Editorial Board of “FCAA”, to Professor Ivan Dimovski on occasion of his 75th anniversary and to wish him good health, energy and enthusiasm for new contributions in research and advisorship of younger colleagues.

Virginia Kiryakova,

Former M.Sc. and Ph.D. student of Prof. Dimovski

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Monograph and D.Sc. Thesis

- *Convolutional Method in Operational Calculus*. D.Sc. Thesis, IMI-BAS, Sofia, 1977.
- *Convolutional Calculus*. Kluwer Academic Publishers. Dordrecht, Boston, London, 1990 (1st Ed., in Bulgarian, Bulg. Acad. Sci, Sofia, 1982).

Some Recent Papers

- I. Dimovski, G. Chobanov, Extension of the Duhamel principle for time-nonlocal boundary value problems. *Math. Balkanica* **18**, No 3-4 (2004), 259-264.

- I. Dimovski, J. Paneva-Konovska, Duhamel representation for a class of non-local boundary value problems. *Math. Balkanica* **18**, No 3-4 (2004), 265-276.
- I. Dimovski, M. Spiridonova, Computer implementation of solutions of BVP for finite vibrating systems. *Math. Balkanica* **18**, No 3-4 (2004), 277-286.
- I. Dimovski, V. Hristov, Commutants of the Pommiez operator. *Intern. J. of Math. and Math. Sci.* **2005**, No 8 (2005), 1239-1251.
- I. Dimovski, M. Spiridonova, Computational approach to nonlocal boundary value problems by multivariate operational calculus. *Math. Sci. Res. Journal* **9**, No 12 (2005), 315-329.
- I. Dimovski, K. Skornik, Operational calculi for the Euler operator. *Frac. Calc. Appl. Anal.* **9**, No 2 (2006), 89-100.
- I. Dimovski, V. Hristov, M. Sifi, Commutants of the Dunkl operators in $C(R)$. *Fract. Calc. Appl. Anal.* **9**, No 3 (2006), 195-213.
- I. Dimovski, V. Hristov, Commutants of the Euler operator. *C.R. Acad. Bulg. Sci.* **59**, No 2 (2006), 125-130.
- I. Dimovski, V. Hristov, Commutants of the Euler operator and corresponding mean-periodic functions. *Integr. Transf. Spec. Funct.* **18**, No 2 (2007), 117-131.
- I. Dimovski, V. Hristov, M. Sifi, Mean-periodic solutions of Euler differential equations. In: *Proc. 16-th Colloq. of Tunisian Math. Soc., Sousse, March 2008*.
- I. Dimovski, V. Hristov, Commutants of the square of the differentiation in $C(R_0^+)$. In: *Proc. 16-th Colloq. of Tunisian Math. Soc., Sousse, March 2008*.
- I. Dimovski, V. Hristov, Nonlocal operational calculi for Dunkl operators. *SIGMA (Symmetry, Integrability and Geometry: Methods and Applications)* **5** (2009), Paper# 030, 16 p. (Special Issue on Dunkl Operators and Related Topics); online publication at
<http://www.emis.de/journals/SIGMA/2009/030/sigma09-030.pdf>.
- I. Dimovski, Nonlocal boundary value problems. *Proc. 38th Spring Conf. UMB, "Math. and Educ. in Math.", April 1-5, 2009*, Sofia (2009), 31-40.
- I. Dimovski, The commutant of the Riemann-Liouville operator of fractional integration. *Fract. Calc. Appl. Anal.* **12**, No 4 (2009), 443-448.