

Report on 3rd International Conference
"Analytic Methods of Analysis and Differential Equations"
(AMADE-2003) – Minsk, Belarus, September 4-9, 2003

The 3rd International Conference "Analytic Methods of Analysis and Differential Equations" (AMADE-2003) took place on September 4-9, 2003 in Minsk, Belarus. It keeps the tradition of the International Conferences "Boundary Value Problems, Special Functions and Fractional Calculus", devoted to 90th birthday of academician F.D. Gakhov (Minsk, Belarus, February 15-20, 1996), "Analytic Methods of Analysis and Differential Equations" (AMADE-99) (Minsk, Belarus, September 14-18, 1999), and (AMADE-2001) (Minsk, Belarus, February 15-19, 2001).

AMADE-2003 was organized by the Belarusian State University together with Institute of Mathematics of Belarusian National Academy of Sciences. It was held at the Olympic Sport Center "Staiki" which is situated in 10 km from Minsk, the capital of Belarus. The Conference was organized under the guidance of the International Society on Analysis, Applications and Computations (ISAAC) and was included into the calendar of the events of the European Mathematical Society. Information on the Conference was published in the Journal "Fractional Calculus and Applied Analysis" (2002, Vol. 5, No. 4, p. 519-520), in the Notices of the American Mathematical Society (2003, Vol. 50, No. 1, p. 83), and in the bulletin "Orthogonal Polynomials and Special Functions" of SIAM Activity Group on Orthogonal Polynomials and Special Functions. It was created the Web-site www.amade-bsu.com containing the information on AMADE-2003 and its predecessors.

More than 320 mathematicians from Europe, Africa, America and Asia confirm their interest in the Conference. 166 representatives of Algeria, Belarus, Canada, Finland, France, Great Britain, Korea, Lithuania, Malaysia,

Mexico, Poland, Portugal, Russia, Turkey, Ukraine, Uzbekistan, USA and Vietnam took part in AMADE-2003.

Four sections were working at the conference: 1. Integral Transforms and Special Functions. 2. Differential Equations and Applications. 3. Integral, Difference, Functional Equations and Fractional Calculus. 4. Real and Complex Analysis. There were 23 plenary invited lectures and 116 sectional talks devoted to different problems of modern analysis, differential equations and their applications.

Plenary invited lectures were given by the following mathematicians: Antonevich A. (Minsk, Belarus), Zajkowski K. (Bialystok, Poland) "The spectral of functional operators and the random walks", Barabanov A.E. (St.-Petersburg, Russia) "H-infinity design for delayed systems", Buraczewski A. (Olsztyn, Poland) "On some problem in determinant theory of Fredholm operators", Burenkov V.I. (Cardiff, UK) "Spectral stability of the Neumann and Robin Laplacians", Goryainov V.V. (Volzhsky, Russia) "Functional equations and fractional iteration of analytic functions", Gromak V.I. (Minsk, Belarus) "On the higher order Painleve equations", Karapetyants N., Avsyankin .G., Gil .V. (Rostov-on-Don, Russia) "Certain questions of the theory of integral operators with homogeneous kernels", Kilbas A.A. (Minsk, Belarus) "Integral and differential equations of fractional order", Clarkson P.A. (Canterbury, U.K.) "Rational solutions of the Painleve equations and associated special polynomials", Korzyuk V.I., Cheb .S. (Minsk, Belarus) "Averaging operators with variable mesh in the theory of boundary value problems", Kun Soo Chang (Seoul, Korea) "Transforms and convolutions in functional spaces", Laine I. (Joensuu, Finland) "Growth of first, second and fourth Painleve transcendents", Laurincikas A. (Vilnius, Lithuania) "Zeta-functions of holomorphic cusp forms", Moiseev E.I. (Moscow, Russia) "On a non-local boundary value problems with spectral parameter", Prilepko .I., Tkachenko D.S. (Moscow, Russia) "Fredholmity of the inverse problem on the source for parabolic systems", Rahimov M., Gurkan F. (Sanliurfa, Turkey) "Spectral theory of operators which act from topological space to endomorphism algebra of Banach space and multidimensional differential equation in Lie algebra", Rogosin S.V. (Minsk, Belarus) "On analytic solutions to a free boundary value problem with disconnected free boundary", Rozaini R., Zainodin H.J., Jusoh A.W. and Ho C.M. (Kota Kinabalu, Malaysia) "Blasius series on the steady boundary-layer from an unsteady free convective problem", Samko S.G. (Faro, Portugal) "On a recent progress on function spaces with nonstandard growth", Silvestrov V.V.

(Cheboksary, Russia), Antipov Y.A. (Bath, UK) "A system of functional-difference equations with periodic coefficients", Sokolov M.S. (Tashkent, Uzbekistan) "Multi-interval boundary value problems. Multiplicity and spectral representation", Vakulov B.G., Karapetyants N. . (Rostov-on-Don, Russia) Spherical operators of potential type with singularities in poles of the sphere", Yurchuk N.I. (Minsk, Belarus) "A priori estimate and continuous dependence on a form of boundary conditions of solution of mixed problems for parabolic equations".

The participants of the conference pointed out its high scientific level. The proceedings of AMADE-2003 are planning to be published in special issues of the Journal "Proceedings of Institute of Mathematics" of the Belarusian National Academy of Sciences. A part of the reports was recommended to publication in the Journal "Integral Transforms and Special Functions".

At the final meeting the participants suggested to organize the next AMADE-Conference in February of 2006 and to devote it to the centenary of academician F.D.Gakhov.

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