

доц. дмн д-р **Виржиния Кирякова**

СПИСЪК НА ПУБЛИКАЦИИТЕ, ПРЕДСТАВЕНИ ЗА УЧАСТИЕ В КОНКУРС ЗА ПРОФЕСОР

Общ брой: 40 (четиридесет):

От тях: използвани за получаване на н. степен „дмн” (2010 г.):

- 1 монография и 6 броя от статиите (номера K52, K54, K64, K67, K68, K86);
- ост. 32 броя статии и обзори не са прилагани за никоя предишна процедура

За представените по конкурса публикации, **разпределението е:**

- монография – 1 брой
- статии и обзори в списания с ИФ – 11 броя, с общ ИФ = 9,427
- общо в специализирани списания – 26 броя
- в рецензирани сборници трудове на междун. конф. – 11 броя
- препринти – 1 брой ; научни статии с популяризаторски характер – 8 броя
- самостоятелни трудове – 18 броя
- статии, съвместни с други автори – 22 броя

Представена е и документация по издаването от кандидата специализирано международно списание **“Fractional Calculus and Applied Analysis”** ([FCAA]), като дейност допринасяща за развитието и популяризирането на тематиката по конкурса в международен мащаб.

Монография (1 бр.):

[K] **V. Kiryakova: “Generalized Fractional Calculus and Applications”**, Longman Sci. & Techn., Harlow – UK; J. Wiley & Sons Inc, N.York - USA, ISBN 0-582-21977-9, etc. 1994, 402 p. ([Zbl 0882.26003](#))

Автореферат на дисертация за „дмн” (1бр.):

K98. В. Кирякова: *Обобщено дробно смятане и приложения в анализа, Автореферат на дисертация за присъждане на н. ст. „доктор на мат. науки”*, София – ИМИ, 64 стр. (V. Kiryakova, *Generalized Fractional Calculus and Applications in Analysis*, Summary of Dr.Sc. Thesis, Sofia, IMI-BAS, 64 pp.)

Списък на научни статии и обзори (общо 30 броя):

- K33. S.L. Kalla, L. Galue, V. Kiryakova: Some expansions related to a family of generalized radiation integrals. *Math. Balkanica (N.S.)* **5** (1991), No 3, 190-202.
- K34. R.K. Saxena, V.S. Kiryakova: On a relation between the two-dimensional *H*-transforms in terms of Erdelyi-Kober operators, *Math. Balkanica (N.S.)* **6**, No 2 (1992), 133-140.

- K40. R.K. Saxena, V. Kiryakova, O.P. Davie: A unified approach to certain fractional integration operators, *Math. Balkanica (New Ser.)* **8**, No 2-3 (1994), 211-219 ([Zbl 0894.26002](#)).
- K41. L. Galue, V. Kiryakova: Further results on a family of generalized radiation integrals, *Radiation Physics & Chemistry*, **43**, No 6 (1994), 573-579.
IF = 0.395
- K44. V. Kiryakova, V. Hernandez-Suarez: Bessel-Clifford third order differential operator and corresponding Laplace type integral transform, *Dissertationes Mathematicae*, **340** (1995), 143-161 ([Zbl 0839.44001](#)).
- K45. V. Kiryakova, R.K. Raina, M. Saigo: Representation of generalized fractional integral operators associating L and L^{-1} on spaces L_p , *Math. Nachrichten* **176**, No 1 (1995), 149-158 ([Zbl 0842.44002](#)), doi:10.1002/mana.19951760112.
IF = 0.259
- K48. L. Galue, S. Kalla, V. Kiryakova: Single term approximations of generalized hypergeometric functions, *New Frontiers in Algebras, Groups and Geometries*, Hadronic Press (Florida, USA), 1996, 417-440.
- K52. B. Al-Saqabi, V. Kiryakova: Explicit solutions of fractional integral and differential equations, involving Erdelyi-Kober operators, *Appl. Mathematics and Computation*, **95**, No 1 (1998), 1-13. ([Zbl 0942.45001](#)),
[doi:10.1016/S0096-3003\(97\)10095-9](#) **IF = 0.248**
- K54. V. Kiryakova, B. Al-Saqabi: Explicit solutions to hyper-Bessel integral equations of second kind, *Computers & Mathematics with Appl-s*, **37**, No 1 (1999); 75-86; [doi:10.1016/S0898-1221\(98\)00243-0](#) **IF = 0.314**
- K61. V. Kiryakova: Representations and computational procedures for special functions via generalized fractional calculus, *Proc. "Internat. Conf. on Scientific Computations '99"*, LAU-Beirut, 1999, 33-42.
- K64. V. Kiryakova: Multiple (multiindex) Mittag-Leffler functions and relations to generalized fractional calculus, *J. Comput. Appl. Mathematics*, **118** (2000), 241-259 ([Zbl 0966.33011](#)), [doi:10.1016/S0377-0427\(00\)00292-2](#)
IF = 0.455
- K65. Yu. Luchko, V. Kiryakova: Generalized Hankel transforms for hyper-Bessel differential operators, *C.R. Acad. Bulg. Sci.*, **53**, No 8 (2000), 17-20.
- K66. Yu. Luchko, V. Kiryakova: Hankel type integral transforms connected with the hyper-Bessel differential operators, *Banach Center Publ.*, **53: Algebraic Analysis and Related Topics** (2000), 155-165 ([Zbl 0963.44004](#)).

- K67. F. Al-Musallam, V. Kiryakova, Vu Kim Tuan: A multi-index Borel-Dzrbashjan transform, *Rocky Mountain J. Math.* **32**, No 2 (2002), 409-428
([Zbl 1035.44002](#), MR1934897 (2003i:44002)), doi:10.1216/rmjm/1030539678
IF = 0,137
- K68. I. Ali, V. Kiryakova, S. Kalla: Solutions of fractional multi-order integral and differential equations using a Poisson-type transform, *J. Math. Anal. and Appl.* **269**, No 1 (2002), 172-199 ([Zbl 1026.45009](#), MR 2003f:45008),
[doi:10.1016/S0022-247X\(02\)00012-4](#); **IF = 0,444**
- K69. R. K. Saxena, S. L. Kalla, V. Kiryakova, Relations connecting multiindex Mittag-Leffler functions and Riemann-Liouville fractional calculus, *Algebras, Groups and Geometries* (Hadronic Press, USA), vol. **20**, No 4 (Dec. 2003), 363-386; http://www.hadronicpress.com/algebra_table.htm → vol. 20 (2003).
([Zbl 0966.33011](#))
- K73. V. Kiryakova, M. Saigo, Sh. Owa: Distortion and characterization theorems for generalized fractional integration operators involving H -function in subclasses of univalent functions, *Fukuoka University Science Reports* **34**, No 1 (March 2004), 1-16 ([Zbl 1057.30012](#)).
- K77. V. Kiryakova, M. Saigo: Criteria for generalized fractional integrals to preserve univalence of analytic functions, *C.R. Acad. Bulg. Sci.*, **58**, No 10 (2005), 1127-1134 ([Zbl 1088.30006](#)).
- K78. M. Saigo, S. Owa, V. Kiryakova: Characterization theorems for starlike and convex functions in terms of generalized fractional calculus, *C.R. Acad. Bulg. Sci.*, **58**, No 10 (2005), 1135-1142 ([Zbl 1088.30009](#)).
- K80. V. Kiryakova: Obrechhoff integral transform and hyper-Bessel operators via G -function and fractional calculus approach, *Global J. Pure and Appl. Mathematics*, **1**, No 3 (2005), 321-341 ([Zbl 1125.44003](#)).
- K86. V. Kiryakova: Transmutation method for solving hyper-Bessel differential equations based on the Poisson-Dimovski transformation, *Fract. Calc. Appl. Anal.* **11**, No 3 (2008), 299-316 ([Zbl 1175.26015](#)).
- K88. V. Kiryakova: The multi-index Mittag-Leffler functions as important class of special functions of fractional calculus, *Computers and Mathematics with* **59**, No 5 (2010), 1885-1895, [doi:10.1016/j.camwa.2009.08.025](#)
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- K89. V. Kiryakova: The special functions of fractional calculus as generalized fractional calculus operators of some basic functions, *Computers and Mathematics with Applications*, **59**, No 3 (2010), 1128-1141, [doi:10.1016/j.camwa.2009.05.014](https://doi.org/10.1016/j.camwa.2009.05.014) **IF=1,472**
- K90. V. Kiryakova: Special functions of fractional calculus – Survey, list and new results, *Proc. First Intern. Conference on Mathematics and Statistics, Sharjah, U.A.E., March 18-21, 2010*, Plenary paper #100265-I (6 pp.).
- K93. V. Kiryakova: The operators of generalized fractional calculus and their action in classes of univalent functions, In: “*Geometric Function Theory and Applications' 2010*” (Proc. of Intern. Symp., Sofia, 27-31.08.2010), 29-40.
- K94. V. Kiryakova, Yu. Luchko: The multi-index Mittag-Leffler functions and their applications for solving fractional order problems in applied analysis, In: *American Institute of Physics – Conf. Proc.* **1301** (AMiTaNS'10), 597-613.
- K96. P. Rajkovic, V. Kiryakova: Legendre-type special functions defined by fractional order Rodrigues formula, In: *American Institute of Physics – Conf. Proc.* **1301** (AMiTaNS'10), 644-649.
- K99. V. Kiryakova: Criteria for univalence of the Dziok-Srivastava and Srivastava-Wright operator in the class A , *Applied Mathematics and Computation*, **218**, No 3 (2011), 883-892, doi: 10.1016/j.amc.2011.01.076; **IF = 1,534** (2010)
- K101. V. Kiryakova, Laplace-type integral transforms, corresponding special functions and operators of fractional calculus: A survey; Accepted paper # DETC2011-48605 at ASME'2011 – FDTA, Washington (Proc. of the ASME 2011 Intern. Design Engineering Techn. Conferences & Computers and Information in Engineering Conference IDETC/CIE 2011, Aug. 28-31, 2011, Washington, DC, USA), 10 pages.
- K102. V. Kiryakova, Fractional order differential and integral equations with Erdelyi-Kober operators: Explicit solutions by means of the transmutation method; Accepted paper, in: *American Institute of Physics – Conf. Proc.* (2011) - Springer, Proc. 37th Intern. Conf. AMEE' 2011 (Applications of Math. in Eng. and Economics, Sozopol, June 2011).

Статии и обзори с популяризаторски характер (8 броя)

- K56. V. Kiryakova: A long standing conjecture failed?, *Transform Methods & Special Functions*, Varna '96 (Proc. 2nd Intern.. Workshop). IMI – Bulg. Acad. Sci., Sofia (1998), 584-593 ([Zbl 0951.26004](#))
- K70. V. Kiryakova: Meijer's G -function: Bulgarian traces for its use in special functions, integral transforms and fractional calculus. *Invited talk* at 31st Spring Conf. UBM, in: “*Mathematics and Educ. in Math'2002*”, 25-34.
- K83. V. Kiryakova: The Fractional calculus' functions: Mittag-Leffler functions, some applications in control theory, generalizations and open problems; In: Proc. “*IX Triennal Internat. SAUM Conf. on Systems, Automatic Control and Measurements, Nis – Serbia, Nov. 2007*”, 88-93.
- K92. J. Tenreiro Machado, V. Kiryakova, F. Mainardi: Recent history of fractional calculus, *Communications in Nonlinear Sci. and Numerical Simulations* (Elsevier), **16**, No 3 (2011), 1140-1153, [doi:10.1016/j.cnsns.2010.05.027](#) **IF = 2.697** (2010)
- K95. J. Tenreiro Machado, V. Kiryakova, F. Mainardi: A note and poster on the recent history of fractional calculus, *Fract. Calc. Appl. Anal.* **13**, No 3 (2010), 329-334, + постер.
- K97. J. Tenreiro Machado, V. Kiryakova, F. Mainardi: A poster about the old history of fractional calculus, *Fract. Calc. Appl. Anal.* **13**, No 4 (2010), 447-454, + постер.
- K100. V. Kiryakova, Generalized fractional calculus, special functions and integral transforms: What is the relation?, In: “*Mathematics and Education in Mathematics' 2011*” (Proc. of 40th Jubilee Spring Conf. of Union of Bulgarian Mathematicians, Borovets, April 5-9, 2011), 42-53 (поканен доклад).
- K103. V. Kiryakova, *The Classical Special Functions and the Special Functions of Fractional Calculus as G- and H-Functions*; Preprint No **5** / 2011 – Institute of Math. and Inform. – B.A.S., Sofia, 2011; 74 стр.
(учебно пособие и наръчник за докторанти, начинаещи и прилагащи специални функции).

[FCAA] **Международно списание по темата на конкурса, основано и издавано от кандидата.** Съдържание на т. 1 (1998) - т. 14 (2011).