

CURRICULUM VITAE of V. C. Covachev

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Name: Valéry Christov Covachev

(also Valery Kovachev, Valeriy Kovatchev, Валерий Ковачев, etc.)

Date and Place of Birth: January 2, 1955, Sofia, Bulgaria.

Current address: Department of Mathematics and Statistics, College of Science, Sultan Qaboos University, Muscat 123, Sultanate of Oman.

E-mail addresses: vcovachev@hotmail.com, valery@squ.edu.om.

Marital status: married since 1987, with 1 son born 1989.

Education:

1. English Language School, Sofia, Bulgaria, 1968–1973.

2. M.S.: Faculty of Mathematics, Sofia University, Sofia, Bulgaria, 1980.

3. Ph.D.: Faculty of Applied Mathematics, Belarus University, Minsk, Belarus, January, 1985. Thesis Supervisor: Prof. Dr. Yu. St. Bogdanov.

Ph.D. Thesis: Birational transformations of ordinary differential equations with rational right-hand sides.

Positions:

1. Mathematician at the Computing Centre of Bulgarian National Bank 1980–1981.

2. Assistant Professor at the Centre of Applied Mathematics, Technical University Sofia, 1981.

3. Researcher at the Department of Differential Equations (1985–1987), at the Department of Mathematical Physics (1987–1993), Institute of Mathematics of Bulgarian Academy of Sciences.

4. Senior Researcher at the Department of Mathematical Physics, Institute of Mathematics of Bulgarian Academy of Science, since February 1993; Head of the Department 1994–2004.

5. Associate Professor at the Department of Mathematics, Fatih University, Istanbul, Turkey, 2000–2001.

6. Associate Professor at the Department of Mathematics & Statistics, College of Science, Sultan Qaboos University, Sultanate of Oman, since 2003.

Participation in conferences, symposia, workshops, etc.

Abroad:

1. 6th Conference of Bulgarian Postgraduate Students in USSR, Moscow, 1983.

2. Banach Semesters, Warsaw, Poland, 1985, 1990.

3. Republican Readings on Ordinary Differential Equations, Minsk, Belarus, 1990.

4. International Conferences on Mathematical Population Dynamics: Third, Pau, France, 1992; Fifth, Zakopane, Poland, 1998.

5. Workshop on Nonlinear Evolutionary Equations, ICTP, Trieste, Italy, 1993.

6. Colloquium of the French Biological Society, St. Flour, France, 1993.

7. Conference on Ordinary Differential Equations, Florence, Italy, 1993.

8. Workshop of the Commission of the European Communities on International Projects, Design Methodologies, Populations Dynamics, etc., Gliwice and Cracow, Poland, 1993.

9. Workshop on Application of Oscillating Integrals to Hyperbolic Differential Equations, International Centre for Mathematical Sciences, Edinburgh, Scotland, 1994.
10. Conference on Nonlinear Differential Equations, Kyiv, Ukraine, 1995.
11. School on Nonstandard Analysis and Applications, International Centre for Mathematical Sciences, Edinburgh, Scotland, 1996.
12. Conference on Functional Differential-Difference Equations and Applications, Antalya, Turkey, 1997.
13. Conference on Biomathematics-Bioinformatics and Applications of Functional Differential-Difference Equations, Alanya, Turkey, 1999.
14. 3rd World Congress of Nonlinear Analysis, Catania, Italy, 2000.
15. Workshop on Differential Equations and their Applications, Istanbul, Turkey, 2000.
16. International Conference on Functional Differential Equations and Applications, Beer-Sheva, Israel, 2002.
17. Conference on Differential Equations and Applications (CDEA 2003), Žilina, Slovakia, 2003.
18. Mathematica Gulf Conference, Muscat, Sultanate of Oman, 2004.
19. Conference on Dynamical Systems and Applications, Antalya, Turkey, 2004.
20. International Symposium on Neural Networks and Soft Computing in Structural Engineering, Cracow, Poland, 2005.
21. Fourth UAE Math Day, Sharjah, UAE, 2006.
22. National Symposium "Towards National Standards for Foundation Year Programs", Muscat, Sultanate of Oman, 2007.
23. Learning Technologies and Mathematics Middle East Conference, Muscat, Sultanate of Oman, 2007.
24. Eighth UAEU Research Conference, Al Ain, UAE, 2007.
25. 6th ISAAC (International Society for Analysis, its Applications and Computation) Congress, Ankara, Turkey, 2007.
25. 3rd International Conference on Mathematical Sciences, Al Ain, UAE, 2008.
27. Conference on Differential and Difference Equations and Applications (CDDEA 2008), Strečno, Slovakia, 2008.
28. The Sixth International Symposium on Neural Networks (ISNN 2009), Wuhan, China, 2009.
29. The 5th International Conference: 2009 - Dynamical Systems and Applications, Constanța, Romania, 2009.
30. International Conference of Mathematical Sciences, Istanbul, Turkey, 2009.
31. Conference on Differential and Difference Equations and Applications (CDDEA 2010), Rajecké Teplice, Slovakia, 2010.
32. The 6th International Conference: 2010 - Dynamical Systems and Applications, Antalya, Turkey, 2010.
33. International Conference on Differential & Difference Equations and Applications, Ponta Delgada, Portugal, 2011.
34. The 7th European Conference on Elliptic and Parabolic Problems, Gaeta, Italy, 2012.
35. Conference on Differential and Difference Equations and Applications (CDDEA 2012), Terchová, Slovakia, 2012.
36. International Conference: Mathematical Science and Applications, Abu Dhabi, UAE, 2012.
37. Bogolyubov Readings DIF-2013. Differential Equations, Theory of Functions and Their Applications, Sevastopol, Ukraine, 2013.

In Bulgaria:

1. Conferences on Differential Equations, Roussé, 1985, 1989.
2. Conference on Integral Equations and Inverse Problems, Varna, 1989.
3. Workshop on Nonlinear Hyperbolic Equations, Sofia, 1991.

4. First-Sixth International Colloquia on Differential Equations, Plovdiv, 1990-1995.
5. First and Second International Colloquia on Numerical Analysis, Plovdiv, 1992, 1993.
6. Summer Schools "Application of Mathematics in Engineering", Varna, 1986, 1988-1994; Sozopol, 1998-2001.
7. 2nd Annual Meeting of the Bulgarian Section of SIAM, Sofia, 2007.

Other visits abroad:

1. Visit of Chişinău University, Chişinău, Moldova, 1983.
2. Visit of the Institute of Mathematics, Akademie der Wissenschaft der DDR (the former East Germany), 1987.
3. Visit of the Akdeniz University, Antalya, Turkey, 1992.
4. Visit of the Université de Pau et du Pays de l'Adour, Pau, France, 1993.
5. Visit of the Valencia Polytechnical University (Spain) for joint research with Prof. L. Jódar supported by the Commission of the European Communities, 1993.
6. Visit of Fatih University, Istanbul, Turkey, 2000.
7. Visit of UAEU, Al Ain, UAE, 2010.

Teaching:

1. Ordinary Differential Equations (Additional Chapters), Institute of Mathematics, Bulgarian Academy of Sciences, lectures, 1986.
2. Linear Algebra and Analytical Geometry, Calculus I and II, Selected Topics of Mathematics, Technical University, Sofia, tutorials, 1985-88.
3. Partial Differential Equations, Sofia University, tutorials, 1987.
4. Scattering Theory, Technical University, Sofia, lectures, 1988-1989.
5. Mathematics, Higher Transport School, Sofia, tutorials, 1989-1991.
6. Analysis, Sofia University, tutorials, 1989-1991.
7. Abstract Mathematics, Calculus, Differential Geometry, Combinatorics and Graph Theory, Discrete Mathematics, Differential Equations, Partial Differential Equations, Fatih University, Istanbul, lectures, 2000-2001.
8. Business Mathematics II, Calculus I, Linear Algebra and Multivariate Calculus for Engineers, Precalculus, Differential Equations and Applications for Engineers, Introduction to Partial Differential Equations, Discrete Mathematics for Computer Science, Mathematics for Science in English (Foundation Program), Sultan Qaboos University, Muscat, lectures and tutorials, 2003-2014.

Membership: Union of Bulgarian Mathematicians, Union of Scientists in Bulgaria, American Mathematical Society, Society for Industrial and Applied Mathematics, IEEE.

Participation in the Organizing, Scientific or Program Committees:

1. of the Conference on Integral Equations and Inverse Problems, Varna, Bulgaria, 1989 (editing the proceedings);
2. of the Workshop on Nonlinear Hyperbolic Equations, Sofia, Bulgaria, 1991;
3. of the Colloquia on Differential Equations (1990-1994) and on Numerical Analysis (1992-1994), Plovdiv, Bulgaria (editing the proceedings);

5. of DESTOBIO'97 (International Conference on Deterministic and Stochastic Modeling of Biointeraction), Sofia, 1997 (editing the abstracts);
6. of the International Conference on Biomathematics-Bioinformatics and Applications of Functional Differential Equations, Alanya, Turkey, 1999 (editing the abstracts and proceedings).
7. of International Conference: 2004 - Dynamical Systems and Applications, Antalya, Turkey, 2004 (editing the abstracts and proceedings).
8. of International Conference: 2007 - Dynamical Systems and Applications, İzmir, Selçuk, Kuşadası, Turkey (editing the abstracts and proceedings).
9. of Conference on Differential and Difference Equations and Applications (CDDEA 2008), Strečno, Slovakia, 2008.
10. of The 5th International Conference: 2009 - Dynamical Systems and Applications, Constanța, Romania, 2009.
11. of The 6th International Conference: 2010 - Dynamical Systems and Applications, Antalya, Turkey, 2010 (editing the abstracts and proceedings).
12. of Conference on Differential and Difference Equations and Applications (CDDEA 2010), Rajecké Teplice, Slovakia, 2010.
13. of Conference on Differential and Difference Equations and Applications (CDDEA 2012), Terchová, Slovakia, 2012 (an editor of the proceedings).
14. of International Conference: Mathematical Science and Applications, Abu Dhabi, UAE, 2012 (editing the abstracts and proceedings).
15. of Second Abu Dhabi University Annual Conference: Mathematical Science and Its Applications, Abu Dhabi, UAE, 2013.

Editor of Journals: African Diaspora Journal of Mathematics, International Journal: Mathematical Manuscripts, Journal of Advanced Researches on Dynamical and Control Systems, International Journal for Statisticians, International Journal of Mathematics and Computation, Contemporary Analysis and Applied Mathematics; Guest Editor of Abstract and Applied Analysis, of Advances in Difference Equations.

Reviewer: Mathematical Reviews, Zentralblatt, Bulgarian Research Foundation, professional journals.

Major fields of interest: Partial differential equations, dynamical systems, impulsive and delay differential equations, functional equations, population dynamics, neural networks.

Knowledge of foreign languages: English, Russian, Spanish, Italian, Polish, German, French.

Computer-related skills: LaTeX, Word.

List of Publications of Valéry Christov Covachev

(last updating 15 January, 2014)

1. V. Chr. Covachev, *Construction of a parametrix for a hyperbolic system with characteristics of variable multiplicity*, Comptes rendus de l'Académie bulgare des Sciences, Tome **33** (1980), No. 10, 1313–1315. MR 82m:35148
2. Valery H. Covačev, *Microlocal parametrix for the Cauchy problem for hyperbolic symmetric systems with symplectic multiple characteristics I*, Serdica Bulgariae mathematicae publicationes, Vol. **8** (1982), No. 1, 64–81. MR 84k:35090
3. Valery H. Kovačev, *Microlocal parametrix for the Cauchy problem for hyperbolic symmetric systems with symplectic multiple characteristics II*, Serdica Bulgariae mathematicae publicationes, Vol. **8** (1982), No. 2, 204–213. MR 85d:35073
4. Kovachev V. Kh., *Bilinear transformations of some differential equations with rational right-hand side*, Vestn. Belarus State Univ., Ser. 1, Phys., Math. and Mech. (1983), No. 2, 45–47 (in Russian). MR 84k:34018
5. Kovachev V. Kh., *On the birational transformations of differential equations with polynomial right-hand side*, in: Proc. 6th Conf. of Bulg. Postgrad. Students in USSR (1983), 603–607 (in Russian).
6. Kovachev V. Kh., *Reduction of certain differential equations with rational right-hand side to "triangular" form by means of a bilinear transformation*, Vestn. Belarus. State Univ., Ser. 1, Phys., Math. and Mech. (1984), No. 2, 61–62 (in Russian). MR 86c:34070
7. Kovachev V. Kh., *On the triangulation of differential systems by means of a fractional-linear transformation*, Ed. of J. "Izv. Vuzov. Math.", Kazan', 1984, 48 p. The manuscript was deposited at VINITI (in Russian).
8. Kovachev V. Kh., *Some bilinear invariants of two-dimensional autonomous systems of ordinary differential equations with rational right-hand side*, Differential Equations, Vol. **21** (1985), No. 2, 331–334, 366 (in Russian). MR 86e:34074
9. Kovachev V. Kh., *Invariants of bilinear transformations of differential systems*, in: Differential Equations and Applications. Proceedings of the Third Conference, Roussé'85 (1987), 191–194 (in Russian). (MR 88j:00018 for the collection)
10. Valery Kovachev, *Smoothness of the billiard ball map for strictly convex domains near the boundary*, Proceedings of the American Mathematical Society, Vol. **103** (1988), No. 3, 856–860. MR 89m:58121 **cited 2 times**
11. V. C. Kovachev, G. S. Popov, *Existence of invariant tori for the billiard ball map near an elliptic periodic geodesic*, Comptes rendus de l'Académie bulgare des Sciences, Tome **41** (1988), No. 9, 19–22. MR 90d:58039 **cited 1 time**
12. V. S. Georgiev, V. Ch. Kovachev, *A weighted estimate of the solution to the wave equation*, Comptes rendus de l'Académie bulgare des Sciences, Tome **42** (1989), No. 11, 17–20. MR 91i:35115
13. V. Chr. Kovachev, G. St. Popov, *Invariant curves for the billiard ball map in the hyperbolic case*, in: Applications of Mathematics in Engineering. Proceedings of the XV National Summer School. Varna'89 (1989), 211–214.
14. Valery Kovachev and Georgi Popov, *Invariant tori for the billiard ball map*, Transactions of the American Mathematical Society, Vol. **317** (1990), No. 1, 45–81. MR 90e:58050 **cited 7 times**
15. V. Chr. Covachev, *Billiard flow and the billiard ball map*, in: First Colloquium on Differential Equations, Plovdiv, 1990, 7–10.
16. Kovachev Valeriy Khristov, Popov Georgiy Stefanov, *Invariant sets of the billiard ball map and applications*, in: Republican Scientific Readings on Ordinary Differential Equations, Minsk, 1990, 62–63 (in Russian).

17. V. S. Georgiev and V. Chr. Kovachev, *Nonlinear problems in quantum mechanics*, Surveys on Analysis, Geometry and Mathematical Physics, Teubner-Texte zur Mathematik, Band **117** (1990), 54-137. MR 92j:35152
18. V. Chr. Covachev and V. S. Georgiev, *Weighted decay estimate for the wave equation*, Proceedings of the American Mathematical Society, Vol. **112** (1991), No. 2, 393-402. MR 91k:35143 **cited 1 time**
19. V. Chr. Covachev, V. S. Georgiev, *A counterpart of the Poincaré group for pseudodifferential operators*, Comptes rendus de l'Académie bulgare des Sciences, Tome **44** (1991), No. 2, 17-20. MR 92j:58107
20. D. Bainov, V. Covachev, I. Stamova, *Estimates of the solutions of impulsive quasilinear functional differential equations*, Annales Faculté des Sciences de Toulouse, Vol. **XII**, No. 2 (1991), 149-161. MR 93j:34092 **cited 4 times**
21. Valéry Covachev, *Global existence of small amplitude solutions of nonlinear hyperbolic equations via weighted estimates of Sobolev norms associated with a Lie group*, in: Differential Equations. The Second Colloquium. Plovdiv, Bulgaria, 19-24 August 1991. World Scientific, Singapore - New Jersey - London - Hong Kong - Bangalore, 1992, 71-84. MR 93h:35123 (93g:34002 for the collection)
22. V. Covachev and V. Georgiev, *A time-dependent Sobolev inequality related to a first-order pseudodifferential operator*, in: Applications of Mathematics in Engineering. Proceedings of the XVII National Summer School. Varna'91 (1992), 99-102.
23. Valéry Covachev, *Numerical-analytical method for finding periodic solutions of nonlinear impulsive singularly perturbed differential equations*, in: Proceedings of the First International Colloquium on Numerical Analysis. Plovdiv, Bulgaria, 13-17 August 1992. VSP. Utrecht, The Netherlands, 1993, 39-50. (MR 97m:65010 for the collection)
24. Valéry Covachev, *Initial value problem for a singularly perturbed nonlinear impulsive system in the critical case*, in: Proceedings of the Third International Colloquium on Differential Equations. Plovdiv, Bulgaria, 18-22 August 1992. VSP. Utrecht, The Netherlands, 1993, 31-44. (MR 98a:00007 for the collection)
25. V. Covachev, *Dirichlet problem for a second order quasilinear singularly perturbed impulsive differential equation*, in: Selected Invited Lectures and Short Communications Delivered at the First International Colloquium on Numerical Analysis and the Third International Colloquium on Differential Equations (Plovdiv, 1992), 31-37.
26. V. Covachev, *Almost periodic solutions of singularly perturbed linear systems of impulsive differential equations*, in: Applications of Mathematics in Engineering. Proceedings of the XVIII National Summer School. Varna'92 (1993), 94-97.
27. Valéry Covachev, *Periodic problem for singularly perturbed nonlinear impulsive systems and application to a model of metabolic system*, in: Mathematical Population Dynamics **3** (Pau, France, 1992).
28. D. Bainov and V. Covachev, *Impulsive Differential Equations with a Small Parameter*, Series on Advances in Mathematics for Applied Sciences - Vol. **24**, World Scientific Publishers, Singapore, New Jersey, London, Hong Kong, 1994, 268 p. MR 97i:34001 **cited 66 times**
29. D. D. Bainov, V. Chr. Covachev, I. M. Stamova, *Stability under persistent disturbances of impulsive differential-difference equations of neutral type*, Journal of Mathematical Analysis and Applications, Vol. **187** (1994), No. 3, 790-808. MR 95j:34108 **cited 19 times**

30. L. Jódar, R. J. Villanueva and V. Chr. Covachev, *Periodic solutions of neutral impulsive systems with a small delay*, in: Proceedings of the Fourth International Colloquium on Differential Equations. Plovdiv, Bulgaria, 18-23 August 1993. VSP. Utrecht, The Netherlands. Tokyo, Japan, 1994, 125-135. (MR 98c:00012 for the collection) **cited 2 times**
31. L. Jódar, R. J. Villanueva, V. Chr. Covachev and J. M. Martín, *Analytic-numerical solutions of variable coefficient second order delay differential equations*, in: Proceedings of the Fourth International Colloquium on Differential Equations. Plovdiv, Bulgaria, 18-22 August 1993. VSP. Utrecht, The Netherlands. Tokyo, Japan, 1994, 137-146. (MR 98c:00012 for the collection) **cited 1 time**
32. L. Jódar, R. J. Villanueva and V. Chr. Covachev, *Second order delay differential equations with variable coefficients: analytic-numerical solutions*, in: 19-th Summer School "Applications of Mathematics in Engineering", August 24-September 02, 1993. Varna, Bulgaria. Sofia, 1994, 99-113. **cited 2 times**
33. D. D. Bainov and V. Chr. Covachev, *Periodic solutions of impulsive systems with a small delay*, J. Phys. A: Math. Gen., **27** (1994), 5551-5563. MR 95h:34103 **cited 6 times**
34. D. D. Bainov and V. Chr. Covachev, *Existence of periodic solutions of neutral impulsive systems with a small delay*, in: 20-th Summer School "Applications of Mathematics in Engineering". Varna, 26.08-02.09.1994. Sofia, 1995, 35-40.
35. D. D. Bainov and V. Chr. Covachev, *Periodic solutions of impulsive systems with delay viewed as a small parameter*, Rivista di Matematica Pura ed Applicata, **19** (1996), 9-25. MR 98j:34015
36. A. Boichuk, V. Covachev, *Periodic solutions of impulsive systems with a small delay in the critical case of first order*, in: Functional Differential-Difference Equations and Applications, Antalya, Turkey, 18-23 August 1997 (H. Akça, L. Berezansky, E. Braverman, L. Byszewski, S. Elaydi and I. Gyóri, eds.). Electronic Publishing House.
37. A. Boichuk, V. Covachev, *Periodic solutions of impulsive systems with a small delay in the critical case of second order*, Nonlinear Oscillations, **1** (1998), No. 1, 6-19. MR 2001k:34131 **cited 1 time**
38. Haydar Akça, Valéry Covachev, *Periodic solutions of impulsive systems with delay*, International Conference on Functional Differential Equations (Israel, 1998), Functional Differential Equations **5** (1998), No. 3-4, 275-286. MR 2001b:34131 **cited 1 time**
39. Ice B. Risteski, Kostadin G. Trenčevski and Valéry C. Covachev, *Reduction of the generalized Popov's differential equation to Birkhoff matrix form*, University of Istanbul. Faculty of Science. The Journal of Mathematics, **57/58** (1998/99), 9-20. MR 2004g:34006
40. Alexander Boichuk, Valéry Covachev, *Boundary value problems for impulsive systems with small concentrated delays*, in: Applications of Mathematics in Engineering'24, eds. B. I. Cheshankov and M. D. Todorov, Heron Press, Sofia, 1999, pp. 59-62. MR 2000c:34169 (MR 99m:00024 for the collection)
41. V. C. Covachev, I. B. Risteski, *Regular singularities in the simple reduction of the Poincaré differential equation to Cauchy matrix form*, Comptes rendus de l'Académie bulgare des Sciences, Tome **52** (1999), No. 11-12, 21-24. MR 2001b:34006
42. Ice Risteski, Kostadin Trenčevski and Valéry Covachev, *A simple functional operator*, New York Journal of Mathematics **5** (1999), 139-142. MR 2000:39B05
43. J. Stefanovski, K. Trenčevski and V. Covachev, *Cauchy problem and reduction of a system of partial differential equations*, Tamkang J. of Mathematics **30**, No. 4 (1999), 315-329. MR 2000m:35034

44. Haydar Akça, Valéry Covachev, *Periodic solutions of impulsive systems with periodic delays*, Proceedings of the International Conference on Biomathematics Bioinformatics and Applications of Functional Differential - Difference Equations, Akdeniz University, July 14-19, 1999, pp. 65-76.
45. Kostadin G. Trenčevski, Ice B. Risteski and Valéry C. Covachev, *On two complex functional equations of Fréchet's type*, Proceedings of the International Conference on Biomathematics Bioinformatics and Applications of Functional Differential-Difference Equations, Akdeniz University, July 14-19, 1999, pp. 180-185.
46. Ice B. Risteski, Kostadin G. Trenčevski and Valéry C. Covachev, *Reduction of the generalized Popov's differential equation to Birkhoff matrix form*, Menemui Mat., **21** (1999), 59-69.
47. Kostadin G. Trenčevski, Valéry C. Covacech, *A special Abel's integral equation*, An. Univ. Timișoara Ser. Mat.-Inform., **38** (2000), No. 1, 133-142.
MR 2005d:45007
48. Valéry Covachev, *Periodicity of the population size of an age-dependent model with a dominant age class by means of impulsive perturbations*, Mathematical Population Dynamics **5** (Zakopane, Poland, 1998) Int. J. Appl. Math. and Comp. Sci., **10** (2000), No. 1, 147-155. MR 2001b:92021
49. V. Covachev, *Bellman-Gronwall inequality*, in: Encyclopaedia of Mathematics, Supplement II, ed. M. Hazewinkel, Kluwer Academic Publishers, Dordrecht, 2000, pp. 51-52.
50. Alexander Boichuk, Valéry Covachev, *Weakly-nonlinear boundary value problems for impulsive systems with small concentrated delays of the argument*, Nonlinear Oscillations, **3** (2000), No. 1, 13-30. MR 2002c:34106
51. Jovan Stefanovski, Kostadin Trenčevski, Valéry Covachev, *Charpit system of partial differential equations with algebraic constraints*, J. Part. Diff. Equations, **13** (2000), 151-162. MR 2001a:35039
52. Ice B. Risteski, Valéry Covachev, *Multiple regular singularities of the Poincaré differential equation and its Cauchy matrix form*, in: Application of Mathematics in Engineering and Economics'25, eds. B. I. Cheshankov and M. D. Todorov, Heron Press, Sofia, 2000, pp. 66-69. (MR 2001c:00014 for the collection)
53. Ice B. Risteski, Kostadin Trenčevski and Valéry Covachev, *On a linear vector functional equation*, in: Some Problems of Applied Mathematics, eds. A. Ashyralyev and H. A. Yurtsever, Fatih University Publications, Istanbul, 2000, pp. 174-184.
54. Ice B. Risteski, Kostadin G. Trenčevski and Valéry C. Covachev, *Reduction of the generalized Popov's differential equation to Birkhoff canonical matrix form*, New Zealand J. of Mathematics, **29** (2000), 61-69. MR 2001d:34012
55. Ice B. Risteski and Valéry C. Covachev, *On some general classes of partial linear complex vector functional equations*, SUT Journal of Mathematics, **36** (2000), No. 2, 105-146. MR 2002a:39031 **cited 1 time**
56. I. B. Risteski, K. G. Trenčevski and V. C. Covachev, *Cyclic complex vector functional equations*, Applied Sciences, Vol. **2** (2000), No. 1, 13-18.
MR 2001k:39037 **cited 1 time**
57. Haydar Akça, Valéry Covachev, *Periodic solutions of linear impulsive systems with periodic delays in the critical case*, Third International Conference on Dynamic Systems & Applications, Atlanta, Georgia, May 1999, eds. G.S. Ladde, N. G. Medhin and M. Sambandham. Proceedings of Dynamic Systems and Applications, Vol. **3** (2001), pp. 15-22. MR 2002h:34136 (MR 2002f:00017 for the collection)
58. Ice B. Risteski, Kostadin G. Trenčevski, Valéry C. Covachev, *A special Abel's integral equation*, Missouri J. Math. Sci. **13** (2001), No. 1, 53-64. MR 2002a:45005

59. Ice B. Risteski, Kostadin G. Trenčevski, Valéry C. Covachev, *An expanded class of parametric linear complex vector functional equations*, *Balkan J. Geom. Appl.* **6** (2001), 63-86. MR 2003b:39033
60. Ice B. Risteski, Kostadin G. Trenčevski, Valéry C. Covachev, *Systems of Functional Equations*, in: *Applications of Mathematics in Engineering and Economics'26*, eds. B. I. Cheshankov and M. D. Todorov, Heron Press, Sofia, 2001, pp. 113-118. MR 2003e:39039 (2002h:00012 for the collection)
61. Ice B. Risteski, Kostadin G. Trenčevski and Valéry C. Covachev, *Complex vector systems of partial functional equations*, *Analele Științifice ale Universității "Al. I. Cuza" din Iași, Tomul XLVII, s. I a, Matematică* (2001), f. 2, 315-366. MR 2004c:39060
62. Valéry Covachev, Haydar Akça and Fuat Yeniçerioğlu, *Difference approximations for impulsive differential equations*, *Applied Mathematics and Computation*, **121** (2001), No. 2-3, 383-390. MR 2002a:65093 **cited 9 times**
63. Maria K. Koleva, Valéry C. Covachev, *Common and different features between the behavior of the chaotic dynamical systems and the $1/f^\alpha$ -type noise*, *Fluctuation and Noise Letters*, Vol. **1** (2001), No. 2, R131-R149. **cited 3 times**
64. Haydar Akça & Valéry Covachev, *Delay differential equations: mathematical modeling in medicine and periodic solutions of impulsive systems with periodic delays in the critical case*, *The Proceedings of Mathematics & Design 2001. The Third International Conference*, Deakin University, Geelong, Australia, pp. 448-461.
65. Ice Risteski & Valéry Covachev, *Complex Vector Functional Equations*, World Scientific, New Jersey - London - Singapore - Hong Kong, 2001, 324 p. MR 2003c:39027 **cited 5 times**
66. Haydar Akça, Abdelkader Boucherif, Valéry Covachev, *Impulsive functional differential equations with nonlocal conditions*, *International Journal of Mathematics and Mathematical Sciences*, Vol. **29** (2002), no. 5, 251-256. MR 2003a:34135 **cited 20 times**
67. Valéry Covachev, *Almost periodic solutions of impulsive systems with periodic time-dependent perturbed delays*, *Functional Differential Equations*, Vol. **9** (2002), No. 1-2, 91-108. MR 2003i:34163
68. Valéry Covachev, Hasan Ali Yurtsever, *Almost periodic solutions of impulsive systems with periodic fluctuations of the delay*, in: *Applications of Mathematics in Engineering and Economics'27*, eds. D. Ivanchev and M. D. Todorov, Heron Press, Sofia, 2002, pp. 144-154. MR 2003e:34132 (MR 2003b:00022 for the collection)
69. L. Jódar, R.J. Villanueva, V.Chr. Covachev, J.M. Martín, A. Sirvent, *Analytical-numerical solutions of coupled variable coefficient second order delay differential equations*, *International Journal of Applied Science and Computations*, **9** (2002), No. 1, 32-44. MR 2004g:34110
70. Ice B. Risteski, Kostadin G. Trenčevski, Valéry C. Covachev, *On some simple complex vector functional equations*, *Bulletin of the Transylvania University of Brașov, New Series, Ser. B*, **9 (44)** (2002), 47-58. MR 2005b:39034
71. Kostadin Trencovski, V. Covachev and I. Risteski, *On some cohomologies on spaces admitting flat linear connections*, *Conference on Applied Differential Geometry, General Relativity, Workshop on Global Analysis, Differential Geometry, Lie Algebras*, August 27 - September 1, 2000, Aristotle University of Thessaloniki, Greece, ed. Grigorios Tsagas, assoc. eds. M. Popescu, P. Popescu, M. Postolache, *BSG Proceedings* **9**, Geometry Balkan Press, 2003, pp. 152-157.

72. Valéry Covachev, Haydar Akça and Eada Ahmed Al-Zahrani, *Periodic solutions of neutral impulsive systems with periodic time-dependent perturbed delays*, International Conference on Functional Differential Equations and Applications (Beer-Sheva, Israel, 2002), *Functional Differential Equations*, **10** (2003), No. 3-4, 441-461. MR 2005h:34185
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