

**PROFESSOR ZDZISŁAW KAMONT
– A BIBLIOGRAPHICAL NOTE,
AND THE LIST OF PUBLICATIONS**

Zdzisław Kamont was born on 1st November 1942 in the village of Leśniki, Poland. He attended secondary school in Białystok and undertook his undergraduate and doctoral studies in Gdańsk. In 1966 he started work as an assistant lecturer at the Institute of Mathematics at the University of Gdańsk. His principal teacher and adviser was Waclaw Pawelski. Zdzisław Kamont was awarded his PhD in 1972 and Habilitation in 1979. He was awarded a full professorship in 1994. From 1980 until his death in 2012 he held various senior positions at the University of Gdańsk.

Kamont's lifetime work has been devoted to the study of partial differential equations and their application. In 1974, 1980, 2000 he was awarded government prizes for his contributions. Of especial note was his contribution to the numerical analysis of nonlinear partial differential functional equations.

Professor Zdzisław Kamont was an internationally renowned figure and had many colleagues in the global scientific and academic community. He had particularly close ties with colleagues from Moscow University of Technology, State University of Aerospace Technologies in Moscow, University of Perugia, Sofia Medical University, Karlsruhe University and Ariel University Center in Israel.

Professor Zdzisław Kamont was the author or co-author of around 130 research papers. He also published 4 monographs: *Approximate Solutions of Impulsive Hyperbolic Equations* (co-authored by D. Bainov and E. Minchev), Academic Publishers 1996; *Hyperbolic Functional Differential Inequalities and Applications*, Kluwer Academic Press 1999; *Ordinary Differential Equations*, Gdańsk University Press 1999; *Partial Differential Equations of the First Order*, The Scientific Society of Gdańsk 2003.

In 2003 Professor Zdzisław Kamont joined the Journal *Opuscula Mathematica* Editorial Board and was a valued member.

THE LIST OF PUBLICATIONS

- [1] *On a certain case of asymptotic stability of the integral $y = 0$ of the differential equation $dy/dx = g(y/x)$* , joint work with W. Pawelski, *Comment. Math. Prace Mat.* **17** (1973), 229–235.
- [2] *On the characteristics for a system of partial differential equations of the first order in a special case*, joint work with W. Pawelski, *Ann. Polon. Math.* **29** (1974), 215–228.
- [3] *On a special case of asymptotic stability in a uniform manner with respect to the initial conditions*, joint work with W. Pawelski, *Comment. Math. Prace Mat.* **19** (1976), 81–84.
- [4] *On the Cauchy problem for differential-delay equations in a Banach space*, joint work with M. Kwapisz, *Math. Nachr.* **74** (1976), 173–190.
- [5] *On mixed inequalities between solutions of an almost linear partial differential equation of the first order with a retarded argument*, *Ann. Polon. Math.* **33** (1976/77), 267–285.
- [6] *On a certain case of asymptotic stability of the solution $Y = 0$ of a system of ordinary differential equations $Y' = F(x, Y)$* , joint work with W. Pawelski and S. Zacharek, *Comment. Math. Prace Mat.* **20** (1977), 87–96.
- [7] *On the Cauchy problem for linear partial differential-functional equations of first order*, *Ann. Polon. Math.* **35** (1977/78), 27–48.
- [8] *On the existence and uniqueness of solutions of the Cauchy problem for linear partial differential-functional equations of the first order*, *Math. Nachr.* **80** (1977), 183–200.
- [9] *On the estimation of the existence domain for solutions of a non-linear partial differential-functional equation of the first order*, *Glas. Mat. Ser. III* **13(33)** (1978), 277–291.
- [10] *On First Order Partial Differential-Functional Equations*, *Rozprawy i Monografie* **10**, Uniwersytet Gdański 1978.
- [11] *On the Cauchy problem for systems of first order partial differential-functional equations*, *Serdica Bulg. Math. Publ.* **5** (1979), 327–339.
- [12] *On the Cauchy problem for nonlinear partial differential-functional equations of the first order*, *Math. Nachr.* **88** (1979), 13–29.
- [13] *On inequalities between solutions of first order partial differential-functional equations*, *Ann. Polon. Math.* **36** (1979), 163–193.
- [14] *On the Cauchy problem for system of first order partial differential-functional equations*, *Serdica* **5** (1979), 327–339.
- [15] *On the Chaplygin method for partial differential-functional equations of the first order*, *Ann. Polon. Math.* **38** (1980), 27–46.
- [16] *On the Chaplygin method for differential-functional equations*, *Demonstratio Math.* **13** (1980), 227–249.
- [17] *On the Cauchy problem for differential-functional equations with first order partial derivatives*, *Functional differential systems and related topics (Proc. First Internat. Conf., Błażejewko, 1979)*, pp. 139–148, Higher College Engrg., Zielona Góra, 1980.

- [18] *On the Cauchy problem for nonlinear systems of partial differential-functional equations of the first order*, Acta Math. Acad. Sci. Hungar. **35** (1980), 295–309.
- [19] *On nonlinear Volterra integral-functional equations in several variables*, joint work with M. Kwapisz, Ann. Polon. Math. **40** (1981), 1–29.
- [20] *A difference method for the nonlinear partial differential equation of the first order with a retarded argument*, Math. Nachr. **107** (1982), 87–93.
- [21] *On partial differential inequalities of the first order with a retarded argument*, joint work with S. Zacharek, Z. Anal. Anwendungen **2** (1983), 135–144.
- [22] *On the stability of solutions of first order partial differential-functional equations*, Serdica **9** (1983), 335–342 (1984).
- [23] *On the Cauchy problem for quasilinear hyperbolic system of partial differential equations with a retarded argument*, joint work with J. Turo, Boll. Un. Mat. Ital. B (6) **4** (1985), 901–916.
- [24] *Existence of solutions of first order partial differential-functional equations*, Comment. Math. Prace Mat. **25** (1985), 249–263.
- [25] *On the Cauchy problem for quasilinear hyperbolic systems with a retarded argument*, joint work with J. Turo, Ann. Mat. Pura Appl. (4) **143** (1986), 235–246.
- [26] *Semilinear differential-functional systems in two independent variables*, Math. Nachr. **127** (1986), 247–263.
- [27] *On the existence of weak solutions of nonlinear first order partial differential equations in two independent variables*, joint work with S. Zacharek, Boll. Un. Mat. Ital. B (6) **5** (1986), 851–879.
- [28] *On the existence of weak solutions of quasilinear first order partial differential equations with a deviated argument*, joint work with S. Zacharek, Rad. Mat. **2** (1986), 189–216.
- [29] *On solutions of first-order partial differential-functional equations in an unbounded domain*, joint work with K. Prządka, Z. Anal. Anwendungen **6** (1987), 121–132.
- [30] *A boundary value problem for quasilinear hyperbolic systems with a retarded argument*, joint work with J. Turo, Ann. Polon. Math. **47** (1987), 347–360.
- [31] *The line method for parabolic differential-functional equations with initial boundary conditions of the Dirichlet type*, joint work with S. Zacharek, Atti Sem. Mat. Fis. Univ. Modena **35** (1987), 249–262 (1988).
- [32] *Difference methods for nonlinear partial differential equations of the first order*, joint work with K. Prządka, Ann. Polon. Math. **48** (1988), 227–246.
- [33] *Generalized solutions of boundary value problems for quasilinear systems with retarded argument*, joint work with J. Turo, Rad. Mat. **4** (1988), 239–260.
- [34] *Difference methods for nonlinear parabolic differential-functional systems with initial boundary conditions of the Neumann type*, joint work with M. Kwapisz, Comment. Math. Prace Mat. **28** (1989), 223–248.
- [35] *On Kamke's functions in uniqueness theorems for first order partial differential-functional equations*, joint work with A. Augustynowicz, Nonlinear Anal. **14** (1990), 837–850.
- [36] *On difference-functional inequalities related to some classes of partial*

- differential-functional equations*, joint work with M. Kwapisz and S. Zacharek, *Math. Nachr.* **146** (1990), 335–360.
- [37] *Existence of solutions of first order partial differential-functional equations via the method of lines*, joint work with D. Jaruszewska-Walczak, *Serdica* **16** (1990), 104–114.
- [38] *The method of lines for parabolic differential-functional equations with initial-boundary conditions of the Dirichlet type*, *An. Ştiinţ. Univ. Al. I. Cuza Iaşi Sect. I a Mat.* **36** (1990), 215–224.
- [39] *Differential and differential-difference inequalities related to mixed problems for first order partial differential-functional equations*, joint work with P. Brandi and A. Salvadori, *Atti Sem. Mat. Fis. Univ. Modena* **39** (1991), 255–276.
- [40] *Approximate solutions of mixed problems for first order partial differential-functional equations*, joint work with P. Brandi and A. Salvadori, *Atti Sem. Mat. Fis. Univ. Modena* **39** (1991), 277–302.
- [41] *Line method approximations to the initial-boundary value problem of Neumann type for parabolic differential-functional equations*, joint work with S. Zacharek, *Comment. Math. Prace Mat.* **30** (1991), 317–330.
- [42] *Difference methods for first order partial differential-functional equations with initial-boundary conditions*, joint work with K. Prządka, *Zh. Vychisl. Mat. i Mat. Fiz.* **31** (1991), 1476–1488; transl. in *Comput. Math. Phys.* **31** (1991), 37–46 (1992).
- [43] *Mixed problems for quasilinear hyperbolic differential-functional systems*, joint work with K. Topolski, *Math. Balkanica (N.S.)* **6** (1992), 313–324.
- [44] *On the line method approximations to the Cauchy problem for parabolic differential-functional equations*, *Studia Sci. Math. Hungar.* **27** (1992), 313–330.
- [45] *Generalized solutions of quasi-linear hyperbolic systems of partial differential-functional equations*, joint work with T. Człapiński, *J. Math. Anal. Appl.* **172** (1993), 353–370.
- [46] *Iterative methods for hyperbolic differential-functional problems*, *Discuss. Math.* **13** (1993), 93–117.
- [47] *Numerical solutions of differential-functional problems* (Plovdiv, 1992), pp. 97–112, VSP, Utrecht, 1993.
- [48] *On first order impulsive partial differential inequalities*, joint work with D. Bañov and E. Minchev, *Appl. Math. Comput.* **61** (1994), 207–230.
- [49] *First-order impulsive partial differential inequalities*, joint work with D. Bañov and E. Minchev, *Internat. J. Theoret. Phys.* **33** (1994), 1341–1358.
- [50] *Stability of solutions of first-order impulsive partial differential equations*, joint work with D. Bañov and E. Minchev, *Internat. J. Theoret. Phys.* **33** (1994), 1359–1370.
- [51] *Uniqueness result for the generalized entropy solutions to the Cauchy problem for first-order partial differential-functional equations*, joint work with H. Leszczyński, *Z. Anal. Anwendungen* **13** (1994), 477–491.
- [52] *Extremal solutions for semilinear differential-functional systems in two independent variables*, joint work with R. Ceppitelli, *Atti Sem. Mat. Fis. Univ. Modena* **42** (1994), 329–341.

- [53] *Initial value problems for hyperbolic differential-functional systems*, Boll. Un. Mat. Ital. B (7) **8** (1994), 965–984.
- [54] *Numerical solutions of hyperbolic differential-functional equations with impulses*, joint work with D. Bainov and E. Minchev, Rend. Sem. Fac. Sci. Univ. Cagliari **64** (1994), 149–171.
- [55] *Finite-difference approximation of first-order partial differential-functional equations*, Ukrain. Mat. Zh. **46** (1994), 985–996; transl. in Ukrainian Math. J. **46** (1994), 1079–1092 (1996).
- [56] *Periodic boundary value problem for impulsive hyperbolic partial differential equations of first order*, joint work with D. Baïnov and E. Minchev, Appl. Math. Comput. **68** (1995), 95–104.
- [57] *Difference methods for impulsive differential-functional equations*, joint work with D. Baïnov and E. Minchev, Appl. Numer. Math. **16** (1995), 401–416.
- [58] *The finite difference method for first order impulsive partial differential-functional equations*, joint work with D. Baïnov and E. Minchev, Computing **55** (1995), 237–253.
- [59] *Comparison principles for impulsive hyperbolic equations of first order*, joint work with D. Baïnov and E. Minchev, J. Comput. Appl. Math. **60** (1995), 379–388.
- [60] *On the impulsive partial differential-functional inequalities of first order*, joint work with D. Baïnov and E. Minchev, Utilitas Math. **48** (1995), 107–128.
- [61] *Initial-boundary value problems for impulsive parabolic functional-differential equations*, joint work with D. Bainov and E. Minchev, Boundary value problems for functional-differential equations, pp. 37–47, World Sci. Publ., River Edge, NJ, 1995.
- [62] *Difference methods for first order partial differential equations with impulses*, joint work with D. Bainov and E. Minchev (Plovdiv, 1994), pp. 3–14, VSP, Utrecht, 1995.
- [63] *Difference methods for impulsive partial differential equations*, joint work with D. Bainov, E. Minchev, and K. Pączkowska-Prządka, Equations (Plovdiv, 1994), pp. 23–38, VSP, Utrecht, 1995.
- [64] *Monotone iterative methods for impulsive hyperbolic differential-functional equations*, joint work with D. Bainov and E. Minchev, J. Comput. Appl. Math. **70** (1996), 329–347.
- [65] *Stability of difference equations generated by parabolic differential-functional problems*, joint work with H. Leszczyński, Rend. Mat. Appl. (7) **16** (1996), 265–287.
- [66] *Initial-boundary value problems for impulsive parabolic functional-differential equations*, joint work with D. Bainov and E. Minchev, Appl. Math. (Warsaw) **24** (1996), 1–15.
- [67] *On the stability of solutions of impulsive partial differential equations of first order*, joint work with D. Bainov and E. Minchev, Adv. Math. Sci. Appl. **6** (1996), 589–598.
- [68] *Approximate Solutions of Impulsive Hyperbolic Equations*, joint work with D. Bainov and E. Minchev, Academic Publishers, Calcutta, India 1996.

-
- [69] *Differential and difference inequalities generated by mixed problems for hyperbolic functional-differential equations with impulses*, joint work with J. Turo and B. Zubik-Kowal, *Appl. Math. Comput.* **80** (1996), 127–154.
- [70] *Difference methods for nonlinear first order partial differential equations with mixed initial boundary conditions*, joint work with P. Brandi and A. Salvadori, *Math. Balkanica (N.S.)* **10** (1996), 249–269.
- [71] *On the local Cauchy problem for quasi-linear hyperbolic functional-differential systems*, joint work with T. Czapliński, *Appl. Anal.* **64** (1997), 329–342.
- [72] *Uniqueness of solutions to hyperbolic functional-differential problems*, joint work with A. Salvadori, *Proceedings of the Second World Congress of Nonlinear Analysts, Part 7 (Athens, 1996)*, *Nonlinear Anal.* **30** (1997), 4585–4594.
- [73] *Periodic solutions of impulsive hyperbolic equations of first order*, joint work with D. Bainov and E. Minchev, *Ital. J. Pure Appl. Math.* **1** (1997), 115–127 (1998).
- [74] *Numerical solutions to the Darboux problem with functional dependence*, joint work with H. Leszczyński, *Georgian Math. J.* **5** (1998), 71–90.
- [75] *Numerical methods for impulsive partial differential equations*, joint work with B. Zubik-Kowal, *Dynam. Systems Appl.* **7** (1998), 29–51.
- [76] *Hyperbolic functional-differential equations with unbounded delay*, *Z. Anal. Anwendungen* **18** (1999), 97–109.
- [77] *Generalized solutions of local initial problems for quasi-linear hyperbolic functional-differential systems*, joint work with T. Czapliński, *Studia Sci. Math. Hungar.* **35** (1999), 185–206.
- [78] *Hyperbolic Functional Differential Inequalities and Applications*, *Mathematics and its Applications* **486**, Kluwer Academic Publishers, Dordrecht 1999.
- [79] *Stability of difference-functional equations and applications*, *Recent advances in numerical methods and applications, II (Sofia, 1998)*, pp. 40–51, World Sci. Publ., River Edge, NJ, 1999.
- [80] *Phase spaces for hyperbolic functional differential equations with unbounded delay*, *Funct. Differ. Equ.* **6** (1999), 327–355.
- [81] *Ordinary Differential Equations*, Gdańsk University Press 1999 [in Polish].
- [82] *Numerical methods for hyperbolic functional differential problems on the Haar pyramid*, joint work with D. Jaruszewska-Walczak, *Computing* **65** (2000), 45–72.
- [83] *On the local Cauchy problem for Hamilton Jacobi equations with a functional dependence*, *Rocky Mountain J. Math.* **30** (2000), 587–608.
- [84] *Existence of weak solutions for first order partial functional differential equations*, joint work with T. Czapliński, *Atti Sem. Mat. Fis. Univ. Modena* **48** (2000), 275–297.
- [85] *Functional differential and difference inequalities with impulses*, *Mem. Differential Equations Math. Phys.* **24** (2001), 5–82.
- [86] *Initial problems for hyperbolic functional differential equations with unbounded delay*, *Funct. Differ. Equ.* **8** (2001), 297–310.
- [87] *Existence of weak solutions of nonlinear functional differential equations with unbounded delay*, joint work with T. Czapliński, *Appl. Anal.* **77** (2001), 249–272.

- [88] *Existence of generalized solutions of hyperbolic functional differential equations*, joint work with P. Brandi and A. Salvadori, *Nonlinear Anal.* **50** (2002), 919–940.
- [89] *Infinite systems of hyperbolic functional differential inequalities*, *Nonlinear Anal.* **51** (2002), 1429–1445.
- [90] *Numerical method of lines for first order partial differential-functional equations*, joint work with A. Baranowska, *Z. Anal. Anwendungen* **21** (2002), 949–962.
- [91] *Finite difference approximations for nonlinear first order partial differential equations*, joint work with A. Baranowska, *Univ. Iagel. Acta Math.* **40** (2002), 15–30.
- [92] *Infinite systems of differential difference inequalities and applications*, joint work with S. Kozieł, *Arch. Inequal. Appl.* **1** (2003), 137–154.
- [93] *Difference methods for quasilinear hyperbolic differential functional systems on the Haar pyramid*, joint work with D. Jaruszewska-Walczak, *Bull. Belg. Math. Soc. Simon Stevin* **10** (2003), 267–290.
- [94] *Differential difference inequalities generated by infinite systems of quasilinear parabolic functional differential equations*, joint work with S. Kozieł, *Funct. Differ. Equ.* **10** (2003), 215–238.
- [95] *Runge-Kutta bicharacteristic methods for first order partial functional differential equations*, joint work with J. Newlin-Łukowicz, *Neural Parallel Sci. Comput.* **11** (2003), 457–474.
- [96] *Numerical approximation of first order partial differential equations with deviated variables*, joint work with A. Baranowska, *Comment. Math. (Prace Mat.)* **43** (2003), 1–31.
- [97] *First order partial functional differential equations with unbounded delay*, joint work with S. Kozieł, *Georgian Math. J.* **10** (2003), 509–530.
- [98] *Initial problems for neutral functional differential equations with unbounded delay*, *Studia Sci. Math. Hungar.* **40** (2003), 309–326.
- [99] *Infinite systems of hyperbolic functional differential equations*, *Ukraïn. Mat. Zh.* **55** (2003), 1678–1696; transl. in *Ukrainian Math. J.* **55** (2003), 2006–2030.
- [100] *Generalized Euler method for nonlinear first order partial differential equations*, joint work with J. Newlin-Łukowicz, *Nelīnīnī Koliv.* **6** (2003), 456–474; transl. in *Nonlinear Oscil. (N.Y.)* **6** (2003), 444–462.
- [101] *Partial Differential Equations of the First Order*, The Scientific Society of Gdańsk 2003 [in Polish].
- [102] *Mixed problems for hyperbolic functional differential equations with unbounded delay*, joint work with S. Kozieł, *Nonlinear Anal.* **58** (2004), 489–515.
- [103] *Stability of difference problems generated by hyperbolic first order partial differential systems*, joint work with A. Baranowska, *Arch. Inequal. Appl.* **2** (2004), 435–450.
- [104] *Implicit difference methods for parabolic functional differential equations*, joint work with W. Czernous, *ZAMM Z. Angew. Math. Mech.* **85** (2005), 326–338.
- [105] *First order partial functional differential equations with state dependent delays*, *Nonlinear Stud.* **12** (2005), 135–157.
- [106] *Numerical approximations of difference functional equations and applications*, *Opuscula Math.* **25** (2005), 109–130.

-
- [107] *Stability of nonlinear functional difference equations and applications*, joint work with A. Nadolski, Commun. Appl. Anal. **9** (2005), 227–246.
- [108] *Functional differential inequalities with unbounded delay*, joint work with A. Nadolski, Georgian Math. J. **12** (2005), 237–254.
- [109] *Differential difference inequalities related to hyperbolic functional differential systems and applications*, joint work with K. Kropielnicka, Math. Inequal. Appl. **8** (2005), 655–674.
- [110] *Generalized method of lines for nonlinear first order partial differential equations*, joint work with A. Baranowska, Atti Semin. Mat. Fis. Univ. Modena Reggio Emilia **53** (2005), 45–67.
- [111] *Generalized Euler method for nonlinear first order partial differential functional equations*, joint work with A. Nadolski, Demonstratio Math. **38** (2005), 977–996.
- [112] *Carathéodory solutions to hyperbolic functional differential systems with state dependent delays*, joint work with J. Turo, Rocky Mountain J. Math. **35** (2005), 1935–1952.
- [113] *Functional differential inequalities with unbounded delay*, joint work with S. Koziel, Ann. Polon. Math. **88** (2006), 19–37.
- [114] *Generalized Euler method for Hamilton Jacobi differential functional systems*, joint work with R. Ciarski, J. Numer. Math. **14** (2006), 267–293.
- [115] *Implicit difference functional inequalities and applications*, joint work with K. Kropielnicka, J. Math. Inequal. **2** (2008), 407–427.
- [116] *Stability of nonlinear functional difference equations*, Univ. Iagel. Acta Math. **46** (2008), 47–68.
- [117] *Implicit difference inequalities corresponding to first-order partial differential functional equations*, joint work with K. Kropielnicka, J. Appl. Math. Stoch. Anal. **2009**, Art. ID 254720, 18 pages.
- [118] *Difference schemes for evolution functional differential equations*, Funct. Differ. Equ. **16** (2009), 315–351.
- [119] *Classical solutions of hyperbolic functional differential systems*, Acta Math. Hungar. **124** (2009), 301–319.
- [120] *Numerical method of lines for parabolic functional differential equations*, joint work with K. Kropielnicka, Appl. Anal. **88** (2009), 1631–1650.
- [121] *Existence of solutions to Hamilton-Jacobi functional differential equations*, Nonlinear Anal. **73** (2010), 767–778.
- [122] *Implicit difference schemes for evolution functional differential equations*, Z. Anal. Anwend. **30** (2011), 105–128.
- [123] *Numerical method of lines for evolution functional differential equations*, joint work with M. Netka, J. Numer. Math. **19** (2011), 63–89.
- [124] *Comparison of explicit and implicit difference methods for quasilinear functional differential equations*, joint work with W. Czernous, Appl. Math. (Warsaw) **38** (2011), 315–340.
- [125] *Weak solutions of functional differential inequalities with first-order partial derivatives*, J. Inequal. Appl. **2011**, 2011:15, 20 pages.
- [126] *Global solutions of initial problems for hyperbolic functional differential systems*, Acta Math. Hungar. **133** (2011), 58–79.

- [127] *Generalized Cauchy problem for hyperbolic functional differential systems*, Rocky Mountain J. Math. **41** (2011), 205–228.
- [128] *Comparison of explicit and implicit difference schemes for parabolic functional differential equations*, joint work with K. Kropielnicka, Ann. Polon. Math. **103** (2012), 135–160.
- [129] *Comparison between some explicit and implicit difference schemes for Hamilton Jacobi functional differential equations*, joint work with W. Czernous, Appl. Math. Comput. **218** (2012), 8758–8772.
- [130] *Numerical methods for Hamilton Jacobi functional differential equations*, joint work with W. Czernous, Zhurn. Vychisl. Mat. i Matem. Fiz. **52** (2012), 1–21.
- [131] *Method of lines for Hamilton-Jacobi functional differential equations*, joint work with A. Szafrńska, Dynamic Systems and Applications **22** (2013), 641–664.
- [132] *Explicit and implicit difference methods for quasilinear first order partial functional differential equations*, joint work with A. Szafrńska, Computational Methods in Applied Mathematics **14** (2014), 151–175.
- [133] *Functional differential inequalities with partial derivatives*, Bull. Belgian Math. Soc. **21** (2014), 1–192.
- [134] *Existence and regularity of solutions for hyperbolic functional differential problems*, Opuscula Math. **34** (2014), 217–242.