Miroslav Fiedler
Professor Bohdan Zelinka (May 16, 1940–February 5, 2005)

Mathematica Bohemica, Vol. 132 (2007), No. 1, 97–107

Persistent URL: http://dml.cz/dmlcz/133998

132 (2007) MATHEMATICA BOHEMICA No. 1, 97–107

NEWS AND NOTICES

PROFESSOR BOHDAN ZELINKA
(May 16, 1940–February 5, 2005)

Miroslav Fiedler, Praha

Two years ago, the Czech and Slovak mathematical community lost one of its most active and well known members, Professor Bohdan Zelinka. Let me shortly commemorate his life, results and ideas.

Professor Zelinka was born on May 16, 1940 in Nový Bydžov. Soon his family moved to Liberec which became his home city for all his life. As has been the case with so many others, he became attracted to mathematics by his success in the Mathematical Olympiad. He decided to study mathematics and descriptive geometry at Charles University in Prague. Already here, the topic of his diploma thesis "The vertex- and edge-connectivity number of finite graphs" turned his interests in mathematics to graph theory.

After having successfully completed his studies, he spent two years in compulsory military service. Even then he did not lose interest in mathematics. I remember having written a letter of invitation for him to attend the later renowned international meeting on graph theory in Smolenice in 1963. He was then the only participant in soldier's uniform.

Let me remark that the symposium in Smolenice was the first international meeting on graph theory in the world. Most of the internationally known mathematicians working in the field took part there, such as Erdős, Gallai, Dirac, Harary, Zykov and others. There also was (a tradition observed ever since) a problem session, and I remember Zelinka systematically studied the posed problems and indeed solved some of them later.

In 1964, Zelinka returned to Liberec where he joined the faculty of the Technical University, first as assistant professor, later as associated and since 1990 as full professor.

Professor Zelinka was one of the most productive mathematicians in the Czech Republic. He published almost 300 research papers, most of them from graph theory; a good part of the papers concerned algebra and a few practical problems which the department of mathematics at the Technical University of Liberec helped to solve.

In his graph theory papers, Zelinka discussed an incredibly rich variety of problems. This is clear from the attached list of publications.

As I have already mentioned, he started by systematically solving problems posed at the Smolenice symposium. He was successful in several cases; the first results were presented at the Tihany meeting in Hungary [26]. Then he studied intersection graphs of several kinds of objects: lattices [64], Abelian groups [77], graphs [76], semilattices [84], tree algebras [100]. However, the most important contributions of Zelinka to graph theory are in two directions:

The first is domination in graphs. Here, he studied (in [127], [134], [135], [153], etc.) the relationship of the known notions of the domatic number of a graph and the totally domatic number of a graph to other characteristics of graphs; he discovered relations which cannot be improved. Also, he found these numbers for several special classes of graphs. In addition, he introduced several new characteristics of graphs related to the previous one, such as the edge-domatic number [159], the complementarily domatic number [197], the semidomatic numbers of a digraph [225], etc.

The second important contribution is related to the Vizing problem how to distinguish two graphs with the same number of vertices and the same number of edges, of course up to isomorphism. He introduced (in [151]) and studied the new notion of distance between graphs (more precisely: between isomorphism classes of two graphs). He then did the same for the so called edge distance of graphs [189] and for the distance between isomorphism classes od digraphs ([196], [222], [226]).

As Zelinka's algebraic papers concerns, let me mention that most of them studied tolerances on algebraic objects ([35], [71], [81], [83], [103], [123], [165], [169], [185], [203], etc.). Zelinka also studied (in fact, he started research in mathematics in this field) the language theory ([6], [8], [10], [15], [18], [24], [32], [38], [50]).

However, mathematics was by far not the only activity of Bohdan Zelinka. He was solver (in fact, several times champion of Czechoslovakia) as well as inventor of problems in puzzle competitions. He got the idea to create the anthem of the graph theory meetings; he wrote the verses to which music was then composed by Z. Ryjáček. The text has been translated into several languages; e.g., [245]). What made him quite famous among Czech and Slovak mathematicians, was the idea of Professor Hammerstein, a fictitions mathematician who "wanted to attend" the meetings at which Zelinka participated and always sent (through Zelinka) a jocular lecture parodically surveying the results presented at the meeting.

I could certainly list a number of other activities of Bohdan Zelinka. The Czech and Slovak mathematical community misses and alwyas will miss him immensely.

Publications of B. Zelinka

[1] Le nombre de connexité maximum d'un graphe aux nombre de sommets et d'arètes donnés. Cas. Pest. Mat. *88* (1963), 391–395.

[2] Some inequalities concerning Π-isomorphisms. Cas. Pest. Mat. *90* (1965), 474–476.

[3] The diameter of the graph of the system of proper semigroups of a commutative semigroup. Mat.-Fyz. Cas. SAV *15* (1965), 143–144. (In Czech.)

[4] Decomposition of a graph into isomorphic subgraphs. Cas. Pest. Mat. *90* (1965), 147–150. (In Czech.)

[5] The graph of the system of chords of a given circle. Mat.-Fyz. Cas. SAV *15* (1965), 273–279. (In Czech.)

[6] Un langage adéquat non homogène, dont les classes sont disjointes deux à deux. Rev. Roum. Math. Pure Appl. *10* (1965), 1255–1257.

[7] A remark on Π-automorphisms. Cas. Pest. Mat. *90* (1965), 99–100.

[8] Opérations avec les modèles analytiques de langages. Bull. Math. Soc. Sci. Math. Répub. Soc. Roum., Nouv. Sér. *9* (1965), 351–355.

[9] Introducing an orientation into a given non-directed graph. Mat.-Fyz. Cas. SAV *16* (1966), 66–71.

[10] Sur le PS-isomorphisme des langues. Z. Math. Logik Grundlagen Math. *12* (1966), 263–265.

[11] The semigroup of non-void subsets of a cyclic semigroup. Cas. Pest. Mat. *91* (1966), 72–76. (In Czech.)

[12] Beweis der Unabhängigkeit des Birkhoffschen Postulatsystems für distributive Verbände mit Einheitselement. Cas. Pest. Mat. *91* (1966), 472–477. (In Czech.)

[13] On the number of independent complete subgraphs. Publ. Math. *13* (1966), 95–97.

[14] Zu einem Problem von S. M. Ulam. Cas. Pest. Mat. *92* (1967), 219–220. (In Czech.)

[15] Un langage hereditaire qui n'est pas à un nombre d'états fini. Rev. Roum. Math. Pures Appl. *12* (1967), 1107–1108.

[16] Decomposition of the complete graph according to a given group. Mat. Cas. SAV *17* (1967), 234–239. (In Czech.)

[17] A remark on infinite edge-disjoint systems of paths in a graph. Cas. Pest. Mat. *92* (1967), 289–292.

[18] Sur les langages absolument bien adéquat. Rev. Roum. Math. Pures Appl. *12* (1967), 737–739.

[19] Hasse's operator and directed graphs. Cas. Pest. Mat. *92* (1967), 313–317.

[20] A contribution to my article 'Introducing an orientation into a given nondirected graph'. Mat. Cas. SAV *17* (1967), Erratum, 316.

[21] Tolerance graphs. Commentat. Math. Univ. Carol. *9* (1968), 121–131.

[22] On a type of multiplicative lattices. Mat. Cas. SAV *18* (1968), 90–98.

[23] Uncountable systems of edge-disjoint paths in a graph. Cas. Pest. Mat. *93* (1968), 251–254.

[24] Sur les langages absolument non adéquats. Rev. Roum. Math. Pures Appl. *13* (1968), 131–133.

[25] The decomposition of a generalized graph into isomorphic subgraphs. Cas. Pest. Mat. *93* (1968), 278–283.

[26] On some problems of the Symposium in Smolenice. Theory of graphs. Proc. Colloq. Tihany, Hungary 1966, 1968, pp. 347–360.

[27] Medians and peripherians of trees. Arch. Math., Brno *4* (1968), 87–95.

[28] Les graphes de Hasse des modèles analytique de langages. Bull. Math. Soc. Sci. Math. Répub. Soc. Roum., Nouv. Sér. *13* (1969), 389–392.

[29] Uneigentliche Knotenpunkte eines Graphen. Cas. Pest. Mat. *95* (1970), 155–169. (In Czech.)
[30] Decomposition of simplex-like graphs and generalized bipartite graphs. Cas. Pest. Mat. *95* (1970), 1–5. (In Czech.)
[31] Centrally symmetric Hasse diagrams of finite modular lattices. Czech. Math. J. *20* (1970), 81–83.
[32] Sur le PS-isomorphisme fort des langages. Bull. Math. Soc. Sci. Math. Répub. Soc. Roum., Nouv. Sér. *13* (1970), 123–126.
[33] Weitere Bemerkungen über unendliche kantenfremde Wegsysteme auf einem Graph. Cas. Pest. Mat. *95* (1970), 309–315. (In Czech.)
[34] Schwach homogene Graphen. Cas. Pest. Mat. *95* (1970), 248–251. (In Czech.)
[35] Tolerance in algebraic structures. Czech. Math. J. *20* (1970), 179–183.
[36] Decomposition of a digraph into isomorphic subgraphs. Mat. Cas. SAV *20* (1970), 92–100.
[37] On (H, K)-decompositions of a complete graph. Mat. Cas. SAV *20* (1970), 116–121.
[38] Le groupe des S-automorphismes d'un langage. Rev. Roum. Math. Pures Appl. *15* (1970), 453–458.
[39] Regular graphs, each edge of which belongs to exactly one s-gon. Mat. Cas. SAV *29* (1970), 181–184 (with A. Kotzig).
[40] The decomposition of a general graph according to a given Abelian group. Mat. Cas. SAV *20* (1970), 281–292.
[41] Generalized gravity centres of trees. Sb. Ped. Fak. Univ. Karlovy, Matematika, 1970, pp. 127–136. (In Czech.)
[42] The graphs, all of whose spanning trees are isomorphic to each other. Cas. Pest. Mat. *96* (1971), 33–40. (In Czech.)
[43] Some remarks on Menger's theorem. Cas. Pest. Mat. *96* (1971), 145–150.
[44] Alternating connectivity of digraphs. Cas. Pest. Mat. *96* (1971), 151–163.
[45] Homogeneous digraphs. Czech. Math. J. *21* (1971), 280–290.
[46] Alternating connectivity of tournaments. Cas. Pest. Mat. *96* (1971), 346–352.
[47] The decomposition of a digraph into isotopic subgraphs. Mat. Cas. SAV *21* (1971), 221–226.
[48] The group of autopies of a digraph. Czech. Math. J. *21* (1971), 619–624.
[49] Groups and homogeneous graphs. Czech. Math. J. *21* (1971), 653–660.
[50] Deux problèmes sur les grammaires à un nombre d'états fini. Rev. Roum. Math. Pures Appl. *16* (1971), 999–1002.
[51] On some problems of the lattice theory. Acta Fac. Rer. Natur. Univ. Comenian. Math. (1971), 87–98.
[52] Isotopy of digraphs. Czech. Math. J. *22* (1972), 353–360.
[53] Reconstructing a graph from the incidence relation on its edge set. Mat. Cas. SAV *22* (1972), 164–171.
[54] Embedding infinite trees into a cube of infinite dimension. Cas. Pest. Mat. *97* (1972), 386–388.
[55] Direct limits of finitary relation spaces. J. Math. Tokushima Univ. *6* (1972), 31–35.
[56] Corrections to my papers "Some remarks on Menger's theorem" and "Alternating connectivity of digraphs". Cas. Pest. Mat. *98* (1973), 98.
[57] Meromorphisms of graphs. Czech. Math. J. *23* (1973), 50–56.
[58] On some graph-theoretical problems of V. G. Vizing. Cas. Pest. Mat. *98* (1973), 56–66.
[59] A remark on a graph-covering conjecture of D. R. Woodall. J. Lond. Math. Soc. II, Ser. 6 (1973), 637–638.
[60] Edge-colourings of permutation graphs. Mat. Cas. SAV *23* (1973), 193–198.

[61] Line isomorphisms on dipseudographs. J. Comb. Theory, Ser. B *14* (1973), 105–121 (with R. L. Hemminger).
[62] Finding a spanning tree with maximal number of terminal vertices. Kybernetika, Praha *9* (1973), 357–360.
[63] Determining the maximal degree of a tree given by its distance matrix. Kybernetika, Praha *9* (1973), 361–364.
[64] Intersection graphs of lattices. Mat. Cas. SAV *23* (1973), 216–222.
[65] Quasigroups and factorization of complete digraphs. Mat. Cas. SAV *23* (1973), 333–341.
[66] Polare und polarisierte Graphen. 18. Internat. Wiss. Kolloqu., Ilmenau 2, 1973, pp. 27–28.
[67] Une remarque sur l'heredité par domination dans les modèles mathématiques de languages. Rev. Roum. Math. Pures Appl. *18* (1973), 1321–1323.
[68] Polar graphs and railway traffic. Apl. Mat. *19* (1974), 169–174.
[69] The number of non-isomorphic Hamiltonian circuits in an n-dimensional cube. Mat. Cas. SAV *24* (1974), 203–208.
[70] Zweiseitig unendliche Züge in lokalendlichen Graphen. Cas. Pest. Mat. *1*, 386–393.
[71] Tolerance relation on lattices. Cas. Pest. Mat. *99* (1974), 394–399 (with I. Chajda).
[72] Cayley color graphs of groups and their generalisations. Acta Fac. Rer. Nat. Univ. Comenian., Math. (1975), 59–64.
[73] On Hadwiger number of a graph. Cas. Pest. Mat. *100* (1975), 155–159.
[74] Finite vertex-transitive planar graphs of the regularity degree four or five. Mat. Cas. SAV *25* (1975), 271–280.
[75] Involutory pairs of vertices in transitive graphs. Mat. Cas. SAV *25* (1975), 221–222.
[76] Intersection graphs of graphs. Mat. Cas. SAV *25* (1975), 129–133.
[77] Intersection graphs of finite Abelian groups. Czech. Math. J. *25* (1975), 171–174.
[78] Geodetic graphs of diameter two. Czech. Math. J. *25* (1975), 148–153.
[79] On a certain distance between isomorphism classes of graphs. Cas. Pest. Mat. *100* (1975), 371–375.
[80] Compatible relations on algebras. Cas. Pest. Mat. *100* (1975), 355–360 (with I. Chajda).
[81] Tolerance in algebraic structures. II. Czech. Math. J. *25* (1975), 175–178.
[82] Two-way infinite trails in locally finite graphs. Recent Adv. Graph Theory, Proc. Symp., Praha 1974, 1975, pp. 533–535.
[83] Tolerance relations on semilattices. Commentat. Math. Univ. Carol. *16* (1975), 333–338.
[84] Intersection graphs of semilattices. Mat. Cas. SAV *25* (1975), 345–350.
[85] Tolerances and congruences on tree algebras. Czech. Math. J. *25* (1975), 634–637.
[86] Interrelations between the theory of graphs and abstract algebra. Knižnice, Odb. Věd. Spisů Vys. Uč. Tech. Brno, B-56, 1975, pp. 109–114. (In Czech.)
[87] A remark on dot-compositions of graphs. J. Indian Math. Soc., N. Ser. *38* (1974, 1975), 221–225.
[88] $(0,1)$-matrices with isomorphic term bigraphs have equal ranks. J. Indian Math. Soc., N. Ser. *39* (1975), 315–319.
[89] Groups and polar graphs. Cas. Pest. Mat. *101* (1976), 2–6.
[90] Hadwiger numbers of finite graphs. Math. Slovaca *26* (1976), 23–30.
[91] The Hadwiger number of an infinite graph. Math. Slovaca *26* (1976), 153–157.
[92] Embedding trees into block graphs. Czech. Math. J. *26* (1976), 273–279.
[93] Weakly associative lattices and tolerance relations. Czech. Math. J. *26* (1976), 259–269 (with I. Chajda).

[94] On existence conditions for compatible tolerances (with I. Chajda, J. Niederle). Czech. Math. J. *26* (1976), 304–311.
[95] Isomorphisms of polar and polarized graphs. Czech. Math. J. *26* (1976), 339–351.
[96] Analoga of Menger's theorem for polar and polarized graphs. Czech. Math. J. *26* (1976), 352–360.
[97] Eulerian polar graphs. Czech. Math. J. *26* (1976), 361–364.
[98] Self-derived polar graphs. Czech. Math. J. *26* (1976), 365–370.
[99] Short survey lecture on infinite graphs. Graphs, Hypergraphs, Block Systems. Proc. Symp. Comb. Anal., Zielona Góra 1976, 1976, pp. 333–339.
[100] Intersection graphs of trees and tree algebras. Math. Slovaca *26* (1976), 343–350.
[101] Finite planar vertex-transitive graphs of the regularity degree three. Cas. Pest. Mat. *102* (1977), 1–9.
[102] On a problem of R. Halin concerning subgraphs of infinite graphs. Math. Slovaca *27* (1977), 43–47.
[103] Lattices of tolerances. Cas. Pest. Mat. *102* (1977), 10–24 (with I. Chajda).
[104] Permutable tolerances. Cas. Pest. Mat. *102* (1977), 217–220 (with I. Chajda).
[105] The lattice of all subtrees of a tree. Math. Slovaca *27* (1977), 277–286.
[106] A remark on isotopies of digraphs and permutation matrices. Cas. Pest. Mat. *102* (1977), 230–233.
[107] Tolerance relations on periodic commutative semigroups. Czech. Math. J. *27* (1977), 167–169.
[108] Geodetic graphs which are homeomorphic to complete graphs. Math. Slovaca *27* (1977), 129–132.
[109] Caterpillars. Cas. Pest. Mat. *102* (1977), 179–185.
[110] Minimal compatible tolerances on lattices. Czech. Math. J. *27* (1977), 452–459.
[111] A remark on systems of maximal cliques of a graph. Czech. Math. J. *27* (1977), 617–618.
[112] Infinite directed paths in locally finite digraphs. Cas. Pest. Mat. *103* (1978), 136–140.
[113] On a problem of R. Häggkvist concerning edge-colouring of graphs. Cas. Pest. Mat. *103* (1978), 289–290.
[114] Dot-compositions of graphs. Combinatorics, Keszthely 1976, Colloq. Aath. Soc. Janos. Bolyai 18, 1978, pp. 1169–1176.
[115] The number of isomorphism classes of spanning trees of a graph. Math. Slovaca *28* (1978), 385–388.
[116] Metrics and tolerances. Arch. Math., Brno *14* (1978), 193–200 (with I. Chajda).
[117] A remark on the Čebyšev property. Math. Slovaca *28* (1978), 311–316.
[118] Derivatives of hypergraphs. Czech. Math. J. *28* (1978), 394–399.
[119] Self-complementary vertex-transitive undirected graphs. Math. Slovaca *29* (1979), 91–95.
[120] Embedding trees into clique-bridge-clique graphs. Cas. Pest. Mat. *104* (1979), 353–356.
[121] Strongly connected digraphs in which each edge is contained in exactly two cycles. Acta Cybern. *4* (1979), 203–205.
[122] Some remarks on Eulerian graphs. Czech. Math. J. *29* (1979), 564–567.
[123] Tolerances and convexity. Czech. Math. J. *29* (1979), 584–587 (with I. Chajda).
[124] Tolerance relations on direct products of monoids and distributive lattices. Glas. Mat., III. Ser. *14* (1979), 11–16 (with I. Chajda).
[125] Join graph of trees. Czech. Math. J. *30* (1980), 332–335.
[126] Subarborians. Czech. Math. J. *30* (1980), 336–340.
[127] Domatically critical graphs. Czech. Math. J. *30* (1980), 486–489.
[128] Bases of classes of trees closed under subdivisions. Math. Slovaca *30* (1980), 61–64.

[129] How to draw tolerance lattices of finite chains. Arch. Math., Brno *16* (1980), 161–165 (with I. Chajda, J. Dalík, J. Niederle, V. Veselý).
[130] The bichromaticity of a graph. Czech. Math. J. *30* (1980), 655–660.
[131] Decomposition of a complete equipartite graph into isomorphic subgraphs. Math. Slovaca *31* (1981), 165–169 (with P. Tomasta).
[132] Finite spherical geometries. Cas. Pest. Mat. *106* (1981), 206–208.
[133] Intersection number of a graph. Cas. Pest. Mat. *106* (1981), 223–225.
[134] On domatic numbers of graphs. Math. Slovaca *31* (1981), 91–95.
[135] Some remarks on domatic numbers of graphs. Cas. Pest. Mat. *106* (1981), 373–375.
[136] Graphs of semigroups. Cas. Pest. Mat., 407–408.
[137] On two graph-theoretical problems from the conference at Nová Ves u Branžeže. Cas. Pest. Mat. *106* (1981), 409–413.
[138] Graph representations of finite Abelian groups. Czech. Math. J. *31* (1981), 83–86.
[139] Cyclically simple tournaments. Publ. Math. *28* (1981), 99–102.
[140] On double covers of graphs. Math. Slovaca *32* (1982), 49–54.
[141] Infinite tree algebras. Cas. Pest. Mat. *107* (1982), 59–68.
[142] Domatic numbers of cube graphs. Math. Slovaca *32* (1982), 117–119.
[143] On two problems of the graph theory. Cas. Pest. Mat. *107* (1982), 109–113.
[144] Elongation in a graph. Math. Slovaca *32* (1982), 291–296.
[145] Homomorphisms of finite bipartite graphs onto complete bipartite graphs. Math. Slovaca *32* (1982), 361–366.
[146] Logics of bipartite graphs and complete multipartite graphs. Cas. Pest. Mat. *107* (1982), 425–427 (with Z. Andres).
[147] Bichromaticity and minimum degree of a bipartite graph. Glas. Mat., III. Ser. *17* (1982), 237–239.
[148] Domatische Zahlen der Graphen. Rostocker Math. Kolloq. *21* (1982), 69–72.
[149] Adomatic and idomatic numbers of graphs. Math. Slovaca *33* (1983), 99–103.
[150] Isonemality and mononemality of woven fabrics. Apl. Mat. *28* (1983), 194–198.
[151] A distance between isomorphism classes of trees. Czech. Math. J. *33* (1983), 126–130.
[152] Nearly acyclic digraphs. Czech. Math. J. *33* (1983), 164–165.
[153] Domatic number and degrees of vertices of a graph. Math. Slovaca *33* (1983), 145–147.
[154] Domatically cocritical graphs. Cas. Pest. Mat. *108* (1983), 82–88.
[155] Pure circuits in cube graphs. Cas. Pest. Mat. *108* (1983), 239–240.
[156] Unpath number of a complete multiplicative graph. Math. Slovaca *33* (1983), 293–296.
[157] Locally tree-like graphs. Cas. Pest. Mat. *108* (1983), 230–238.
[158] Domatic number and bichromaticity of a graph. Graph theory, Proc. Conf., Lagów, Poland, 1981. Lect. Notes Math. vol. 1018, 1983, pp. 278–285.
[159] Edge-domatic number of a graph. Czech. Math. J. *33* (1983), 107–110.
[160] On k-domatic numbers of graphs. Czech. Math. J. *33* (1983), 309–313.
[161] Double covers and logics of graphs. Czech. Math. J. *33* (1983), 354–360.
[162] Double covers and logics of graphs. II. Math. Slovaca *33* (1983), 329–334.
[163] Directly decomposable tolerances on direct products of lattices and semilattices. Czech. Math. J. *33* (1983), 519–521 (with I. Chajda).
[164] Homomorphisms of infinite bipartite graphs onto complete bipartite graphs. Czech. Math. J. *33*, 545–547.
[165] Tolerances and orderings on semilattices. Arch. Math., Brno *19* (1983), 125–131 (with J. Nieminen, I. Chajda).
[166] Complemented tolerances on lattices. Cas. Pest. Mat. *109* (1984), 54–59 (with I. Chajda).

[167] On a problem of A. Kotzig concerning factorizations of 4-regular graphs. J. Graph Theory *8* (1984), 325–330.
[168] Decomposition of an infinite complete graph into complete bipartite subgraphs. Cas. Pest. Mat. *109* (1984), 266–267.
[169] Tolerances on monounary algebras. Czech. Math. J. *34* (1984), 298–304.
[170] Symmetries of woven fabrics. Apl. Mat. *29* (1984), 14–22.
[171] On k-ply domatic numbers of graphs. Math. Slovaca *34* (1984), 313–318.
[172] Semidomatic numbers of directed graphs. Math. Slovaca *34* (1984), 371–374.
[173] Cyclicity of a complete 3-equipartite graph. Arch. Math., Brno *21* (1985), 1–3.
[174] Bichromaticity and domatic number of a bipartite graph. Cas. Pest. Mat. *110* (1985), 113–115.
[175] Graphs with prescribed neighbourhood graphs. Math. Slovaca *35* (1985), 195–197.
[176] Comparison of various distances between isomorphism classes of graphs. Cas. Pest. Mat. *110* (1985), 289–293.
[177] Domatic numbers of uniform hypergraphs. Arch. Math., Brno *21* (1985), 129–133.
[178] Odd graphs. Arch. Math., Brno *21* (1985), 181–187.
[179] Every finite chain is the tolerance lattice of some lattice. Glas. Mat., III. Ser. *20* (1985), 3–6.
[180] Domatic number and linear arboricity of cacti. Math. Slovaca *36* (1986), 49–54.
[181] Neighbourhood tournaments. Math. Slovaca *36* (1986), 241–244.
[182] Edge neighbourhood graphs. Czech. Math. J. *36* (1986), 44–47.
[183] Disconnected neighbourhood graphs. Math. Slovaca *36* (1986), 109–110.
[184] Connected domatic number of a graph. Math. Slovaca *36* (1986), 387–392.
[185] Tolerances on graph algebras. Czech. Math. J. *37* (1987), 313–317.
[186] A characterization of tolerance-distributive tree semilattices. Czech. Math. J. *37* (1987), 175–180 (with I. Chajda).
[187] Neighbourhood digraphs. Arch. Math., Brno *23* (1987), 69–70.
[188] The distance between a graph and its complement. Czech. Math. J. *37* (1987), 120–123.
[189] Edge-distance between isomorphism classes of graphs. Cas. Pest. Mat. *112* (1987), 233–237.
[190] Distances between directed graphs. Cas. Pest. Mat. *112* (1987), 359–367.
[191] Locally disconnected graphs with large numbers of edges. Math. Slovaca *37* (1987), 195–198 (with Z. Ryjáček).
[192] Natural bijections between directed and undirected self-complementary graphs. Math. Slovaca *37* (1987), 363–366.
[193] On a problem of P. Vestergaard concerning circuits in graphs. Czech. Math. J. *37* (1987), 318–319.
[194] Block-closed subgraphs and q-partitions of graphs. Zastosow. Mat. *19* (1987), 629–634.
[195] Locally snake-like graphs. Math. Slovaca *88* (1988), 85–88.
[196] The distance between various orientations of a graph. Math. Slovaca *38* (1988), 19–25.
[197] Complementarily domatic number of a graph. Math. Slovaca *38* (1988), 27–32.
[198] Polytopic locally linear graphs. Math. Slovaca *38* (1988), 99–103.
[199] Total domatic number of cacti. Math. Slovaca *38* (1988), 207–214.
[200] Two local properties of graphs. Cas. Pest. Mat. *113* (1988), 113–121.
[201] Small directed graphs as neighbourhood graphs. Czech. Math. J. *38* (1988), 269–273.
[202] The graph of labellings of a given graph. Math. Slovaca *38* (1988), 297–300.
[203] Tolerances of polyunary algebras. Arch. Math., Brno *24* (1988), 1–4.
[204] Tolerances and congruences on implication algebras. Czech. Math. J. *38* (1988), 207–217 (with I. Chajda).
[205] A remark on signed posets and signed graphs. Czech. Math. J. *38* (1988), 673–676.

[206] Partitionability of trees. Czech. Math. J. *38* (1988), 677–681.
[207] The bigraph decomposition number of a graph. Cas. Pest. Mat. *113* (1988), 56–59.
[208] A remark on cancellation in direct products of graphs. Cas. Pest. Mat. *114* (1989), 35–38.
[209] Spanning trees of locally finite graphs. Czech. Math. J. *39* (1989), 193–197.
[210] Centers of directed cacti. Cas. Pest. Mat. *114* (1989), 225–229.
[211] Total domatic number and degrees of vertices of a graph. Math. Slovaca *39* (1989), 7–11.
[212] Neighbourhood realizations of complements of intersection graphs. Math. Slovaca *39* (1989), 361–363.
[213] Contraction distance between isomorphism classes of graphs. Cas. Pest. Mat. *115* (1990), 211–216.
[214] Domatic numbers of lattice graphs. Czech. Math. J. *40* (1990), 113–115.
[215] The least connected non-transitive graph with constant neighbourhoods. Czech. Math. J. *40* (1990), 619–624.
[216] Regular totally domatically full graphs. Discrete Math. *86* (1990), 71–79.
[217] Domination in cubic graphs. Topics in combinatorics and graph theory. Essays in honour of Gerhard Ringel, 1990, pp. 727–735.
[218] Edge-domatically full graphs. Math. Slovaca *40* (1990), 359–365.
[219] A remark on self-centroidal graphs. Zastosow. Mat. *21* (1991), 109–112.
[220] Edge-domatic numbers of cacti. Math. Bohem. *116* (1991), 91–95.
[221] Total edge-domatic number of a graph. Math. Bohem. *116* (1991), 96–100.
[222] Distances between rooted trees. Math. Bohem. *116* (1991), 101–107.
[223] Domination in cubes. Math. Slovaca *41* (1991), 17–19.
[224] Every connected acyclic digraph of height 1 is neighbourhood-realizable. Arch. Math., Brno *27a* (1991), 133–135.
[225] Semidomatic and total semidomatic numbers of directed graphs. Math. Bohem. *117* (1992), 1–8.
[226] Distances between graphs. Combinatorics, graphs and complexity. Proc. 4th Czechosl. Symp., Prachatice, 1990. Ann. Discrete Math. *51* (1992), 355–361.
[227] Domatic number of a graph and its variants. Combinatorics, graphs and complexity. Proc. 4th Czechosl. Symp., Prachatice, 1990. Ann. Discrete Math. *51* (1992), 363–369.
[228] Tolerances on poset algebras. Math. Bohem. *117* (1992), 93–97.
[229] Equivalences between isomorphism classes in infinite graphs. Math. Bohem. *117* (1992), 151–155.
[230] Edge shift distance between trees. Arch. Math., Brno *28* (1992), 5–9.
[231] Domination in Kneser graphs. Math. Bohem. *118* (1993), 147–152 (with J. Ivančo).
[232] Graphs in which each pair of vertices has exactly two common neighbours. Math. Bohem. *118* (1993), 163–165.
[233] Distances between partially ordered sets. Math. Bohem. *118* (1993), 167–170.
[234] A modification of the median of a tree. Math. Bohem. *118* (1993), 195–200.
[235] Representation of undirected graphs by anticommutative conservative groupoids. Math. Bohem. *119* (1994), 231–237.
[236] Extended trees of graphs. Math. Bohem. *119* (1994), 239–244.
[237] Tolerances and congruences on conservative groupoids. General Algebra and Ordered Sets. Proc. Int. Conf. and Summer School, Horní Lipová, Czech Rep., 1994 (Chajda, I. et al., eds.). Palacký Univ., Olomouc, pp. 168–171.
[238] Cut-vertices and domination in graphs. Math. Bohem. *120* (1995), 135–143 (with P. D. Vestergaard).
[239] Domination in graphs with few edges. Math. Bohem. *120* (1995), 405–410.

[240] Edge-domatic numbers of directed graphs. Czech. Math. J. *45* (1995), 449–455.
[241] Median properties of graphs with small diameters. Math. Bohem. *120* (1995), 319–323.
[242] Subtraction semigroups. Math. Bohem. *120* (1995), 445–447.
[243] Some remarks on domination in cubic graphs. Discrete Math. *158* (1996), 249–255.
[244] Atomary tolerances on finite algebras. Math. Bohem. *121* (1996), 35–39.
[245] The graph theory hymn. Discuss. Math., Graph Theory *16* (1996), 219–221 (with Z. Ryjáček, M. Meszka, J. Nowakz). (In Czech, Polish.)
[246] Antidomatic number of a graph. Arch. Math., Brno *33* (1996), 191–195.
[247] Minimal signed dominating functions of graphs. Proc. of the Prague Math. Conf., 1996, in honor of the 70th birthdays of I. Babuška, M. Fiedler, J. Kurzweil, V. Pták. Icaris Ltd., pp. 359–363.
[248] Poison from Erdős. Geombinatorics *6* (1997), 117–118.
[249] Circular distance in directed graphs. Math. Bohem. *122* (1997), 113–117.
[250] On two transformations of graphs. Math. Bohem. *122* (1997), 357–363.
[251] Domatic numbers of graphs and their variants: A survey. Domination in Graphs. Advanced topics (Haynes, T. W. et al., eds.). New York, NY, Marcel Dekker. Pure Appl. Math. vol. 209, 1998, pp. 351–377.
[252] Location-domatic number of a graph. Math. Bohem. *123* (1998), 67–71.
[253] On the simplex graph operator. Discuss. Math., Graph Theory *18* (1998), 165–169.
[254] Domination in products of circuits. Acta Univ. M. Belii, Ser. Math. *6* (1998), 57–62.
[255] Dominating functions of graphs with two values. Math. Bohem. *123* (1998), 263–270.
[256] Graphs maximal with respect to absence of Hamiltonian paths. Discuss. Math., Graph Theory *18* (1998), 205–208.
[257] Domination in graphs. V. Bálint (ed.), Proc. Int. Sc. Conf. Math., Žilina, Slovakia, 1998, vol. 2, EDIS, Žilina Univ. Publisher, 1999, pp. 151–154.
[258] Point set domatic numbers of graphs. Math. Bohem. *124* (1999), 77–82.
[259] A remark on graph operators. Math. Bohem. *124* (1999), 83–85.
[260] Locally regular graphs. Math. Bohem. *125* (2000), 481–484.
[261] A note on periodicity of the 2-distance operator. Discuss. Math., Graph Theory *20* (2000), 267–269.
[262] On a problem concerning stratified graphs. Czech. Math. J. *50* (2000), 47–49.
[263] Signed total domination number of a graph. Czech. Math. J. *51* (2001), 225–229.
[264] Periodicity of graph operators. Discrete Math. *235* (2001), 349–351.
[265] On 2-periodic graphs of a certain graph operator. Discuss. Math., Graph Theory *21* (2001), 13–30 (with I. Havel).
[266] Tolerances and congruences on tree groupoids. I. Chajda et al. (eds.), Contributions to General Algebra 13. Proc. 60th workshop on general algebra, 60. Arbeitstagung Allgemeine Algebra, Dresden, 2000, and of the summer school '99 on general algebra and ordered sets, Velké Karlovice, Czech Rep., 1999. Klagenfurt: Verlag Johannes Heyn, 2001, pp. 361–363.
[267] The 3-path-step operator on trees and unicyclic graphs. Math. Bohem. *127* (2002), 33–40.
[268] On signed edge domination numbers of trees. Math. Bohem. *127* (2002), 49–55.
[269] Domination in generalized Petersen graphs. Czech. Math. J. *52* (2002), 11–16.
[270] On a problem of E. Prisner concerning the biclique operator. Math. Bohem. *127* (2002), 371–373.
[271] Induced-paired domatic numbers of graphs. Math. Bohem. *127* (2002), 591–596.
[272] Edge-dominations in graphs of cubes. Czech. Math. J. *52* (2002), 875–879.
[273] Algebraic approach to locally finite trees with one end. Math. Bohem. *128* (2003), 37–44.

[274] Infinite paths in locally finite graphs and in their spanning trees. Math. Bohem. *128* (2003), 71–76.
[275] Domination in bipartite graphs and in their complements. Czech. Math. J. *53* (2003), 241–247.
[276] On a problem concerning k-subdomination numbers of graphs. Czech. Math. J. *53* (2003), 627–629.
[277] A remark on branch weights in countable trees. Math. Bohem. *129* (2004), 29–31.
[278] Signed 2-domination in caterpillers. Math. Bohem. *129* (2004), 393–398.
[279] Signed domatic number of a graph. Discrete Appl. Math. *150* (2005), 261–267 (with L. Volkmann).
[280] Remarks on restrained domination and total restrained domination in graphs. Czech. Math. J. *555* (2005), 393–396.
[281] Signed domination numbers of directed graphs. Czech. Math. J. *55* (2005), 479–482.
[282] Signed and minus domination in bipartite graphs. Czech. Math. J. *56* (2006), 587–590.