

Prof. dr. Radu Păltănea

Studies

1972-1977 Faculty of Mathematics and Informatics, University of Braşov.

1990-1992 PhD Thesis, *Approximation operators and their connections with some particular allures* (Romanian), University "Babeş-Bolyai", Cluj-Napoca, (supervisor Prof. dr. doc. Elena Popoviciu)

Academic positions

Professor, Faculty of Mathematics and Computer Science Transilvania University of Braşov since 1980.

Assistant Professor 1980-1991

Lecturer 1991-1996

Associate Professor 1996-2003

Full Professor 2003-

Head of the Chair of Mathematical Analysis and Probabilities 2004-2011

Ph. D. supervisor from 2007. Thesis: Talpău Dimitriu Maria (2012), Minea Bucurel (2013), Stan Gabriel (2014), Moldovan Camelia Liliana (2020)

Academic award

The Simion Stoilov award of Romanian Academy in 2007 for the group of papers *Approximation theory using positive linear operators*

Editorial activity

Editor-coordinating *Bulletin of the Transilvania University of Braşov, Series III Mathematics, and Computer Science*, from 2000.

Publications

a. Books

1. *Approximation Theory Using Positive Linear Operators*, Birkhäuser, Boston, (Springer Media), (2004), ISBN: 0-8176-4350-8, MR2085239, Zbl 1154.41013.
2. *Approximation by Positive Linear Operators: Estimates with Second Order Moduli*, Transilvania University Publisher, Braşov, (2003), ISBN: 973-635-132-7.
3. *Elements of Mathematical Analysis and Approximation Theory* (Romanian) [with E. Păltănea], Transilvania University Publisher, Braşov, (2009), ISBN: 978-973-598-656-8.
4. *Mathematical Analysis* (Romanian) [with E. Păltănea], Transilvania University Publisher, Braşov, (2003), ISBN: 973-635-162-9.

b. Articles

1. A new class of Bernstein-type operators obtained by iteration, [with M. Smuc], *Studia Mathematica Univ. Babeş Bolyai*, accepted.
2. On a method for uniform summation of Fourier-Jacobi series, [with A. D. Meleşteu], *Results Math.* 77 (2022), Article 153, Zbl 07554616, WOS:000814271100003.
3. Approximation of generalized nonlinear Urysohn operators using positive linear operators, [with C. Păcurar], *Filomat* 35 (2021), no. 8, 2595-2604, WOS:000729451900009.
4. Weak n -inner product spaces, [with N. Minculete], *Ann. Funct. Anal.* 12 (2021), article 22, Zbl 1470.46045, WOS:000613320200001.
5. Durrmeyer type operators on a simplex, *Constructive Mathematical Analysis* 4 (2021), No. 2, 215-228, Zbl 1488.41060.
6. Preserving the shape of functions by applying multidimensional Schoenberg-type operators, [with C.L. Moldovan], *Symmetry-Basel* 13 (2021), article 1016, WOS:000666464800001.
7. Quantitative results for the limiting semigroup generated by the multidimensional Bernstein operators, [with M. Smuc], *Semigroup Forum*, Vol 102, issue 3 (2021), 235-249, Zbl 1465.41008, WOS:000604835100001.
8. A definition of two-dimensional Schoenberg type operators, [with C. L. Moldovan], *Symmetry-Basel* 12 (2020), no. 8, article 1364. WOS:000564654700001.
9. Improvement of clear sky models for direct solar irradiance considering turbidity factor variable during the day, [with C. L. Moldovan and I. Vişa], *Renewable Energy* 161 (2020), 559-669, WOS:000572902800003.
10. The exact form of the second moment of third degree Schoenberg spline operators, [with C. L. Moldovan], *Numer. Funct. Analysis Optimiz.* 41 (2020), no. 11, 1308-1325, zbl 1447.41001, WOS:000535958100001.

11. On the geometric series of linear positive operators, *Constructive Mathematical Analysis*, 2 (2019), no. 2, 49-56, Zbl 1463.41061.
12. Second degree Schoenberg operators with knots at the roots of Chebyshev polynomials, [with C. L. Moldovan], *Rev. R. Acad. Cienc. Exactas Fis. Nat. Ser. A Math.* 113 (2019), no. 3, 2793-2804, Zbl 1423.41034, WOS:000469507800072
13. Sharp estimates of asymptotic error of approximation by general positive linear operators in terms of the first and the second moduli of continuity, [with M. Smuc], *Results Math* (2019), 74:70, Zbl 1416.41030, WOS:000461307200010
14. Some improved inequality in an inner product space, [with N. Minculete], *Journal of Mathematical Inequalities*, vol. 13 (2019), issue 1, 147-157, Zbl 1428.46016, WOS:000462514400011.
15. Asymptotic constant in approximation of twice differentiable functions by a class of positive linear operators, *Results Math* (2018), 73:64, WOS:000434419100015.
16. Experimental assessment of the Meliss simulation model accuracy of the direct solar irradiance in Braşov, [with C. L. Moldovan and I. Vişa], *An. Univ. Vest Timişoara Ser. Physics*, Vol XL (2018), 24-37.
17. First order statistics-based features selection for clustering using Gaussian mixture model, [with C. L. Moldovan and I. Vişa] *An. Univ. Dunărea de Jos Galaţi Fasc. II Mat. Fiz. Mec. Teor.* (2018), no. 1, 104–110.
18. A complete asymptotic expansion for the quasi-interpolants of Gauß—Weierstraß operators, [with U. Abel and O. Agratini] *Mediterr. J. Math.*, (2018) 15:156, Zbl 1400.41028, WOS:000435604200002.
19. Estimates for weighted K -functionals using the least concave majorant of weighted moduli of continuity, [with M. Talpău Dimitriu] *Numer. Funct. Analysis Optimiz.* 38 (2017), no. 12, 1589-1600, Zbl 1381.41011, WOS:000415657700004.
20. Improved estimate for the triangle inequality [with N. Minculete] *Journal of Inequalities and Applications*, (2017) article 17, Zbl 06675392 WOS:000397630800002.
21. Summation methods applied to Voronovskaya-type theorems for the partial sums of Fourier series and for Fejer operators, [with B. Minea] *Mathematica Slovaca* 66 (2016), no. 1, 235-244, Zbl 06589849, WOS:000375745500022.
22. General estimates of the weighted approximation on interval $[0, \infty)$ using moduli of continuity, [with M. Smuc] *Bull. Transilvania Univ. Braşov, Series III: Math. Inform. Physics*, **8(57)** (2015), no. 2, 93-108, Zbl 06703452.
23. The Durrmeyer variant of an operator defined by D.D. Stancu, [with U. Abel and M. Ivan] *Applied Mathematics and Computation*, **259** (2015), 116-123, MR3269061, WOS:000353393700011.
24. Voronovskaja theorem for simultaneous approximation by Bernstein operators on a simplex, [with G. Stan], *Mediterr. J. Math.*, vol. 12 (2015), no. 3, 889-900, Zbl 1321.41039, WOS:000359272100021
25. Transformation of the second order modulus by positive linear operators, [with G. Stan], *An. Şt. Univ. Ovidius Constanţa*, vol. 23 (2015), 237-246, MR3218797, Zbl 1358.41010, WOS:000347515600016.
26. Approximation of fractional derivatives by Bernstein polynomials, *General*

- Mathematics*, vol. 22 (2014), no. 1, 91-98.
27. Geometric series of positive linear operators and the inverse Voronovskaya theorem on a compact interval, [with U. Abel, M. Ivan], *J. Approx. Theory*, vol. 184 (2014), 163-175, Zbl 1295.41018, WOS:000338399100007.
28. Simultaneous approximation by a class of Szász-Mirakjan operators, *J. Applied Functional Analysis*, vol. 9 (2014), no's 3-4, 356-368, MR3156219.
29. Geometric series of Bernstein operators revisited, [with U. Abel, M. Ivan,], *J. Math. Anal. Appl.*, vol. 400 (2013), no. 1, 22-24, MR3003960, Zbl 1259.41011, WOS:000314672700003.
30. A note on generalized Bernstein-Kantorovich operators, *Bulletin of the Transilvania University of Braşov, Series III: Mathematics, Informatics, Physics*, vol. 6(55) (2013), no. 2, 27-32, MR3161082, Zbl 1299.41048.
31. Generalized Bernstein-Durrmeyer operators on a simplex, *General Mathematics.*, vol. 20, (2012), no. 5, 71-82.
32. Estimates of approximation in terms of a weighted modulus of continuity, *Bulletin of the Transilvania University of Braşov, Series III: Mathematics, Informatics, Physics*, vol. 4(53) (2011), no. 1, 67-74, MR2995812, Zbl 1249.41065.
33. On the moments of iterated tail, [with Gh. Zbăganu] *Mathematical Reports* vol. 13(63) no. 1 (2011), 65-74, MR2828645, Zbl 1240.60015., WOS:000292056800005.
34. Estimates for general positive linear operators on non-compact interval using weighted moduli of continuity, *Studia Univ. Babeş-Bolyai Math*, vol. 56 (2011), no. 2, 497-504, MR2843707.
35. On a constant in the lower estimate for Bernstein operators, *Annals of the Tiberiu Popoviciu Seminar*, vol 8, (2010), 45-53, MR2724243, Zbl 1216.41017.
36. Representation of the K-functional $K(f, C[a, b], C^1[a, b], \cdot)$ - a new approach, *Bulletin of the Transilvania University of Braşov, Series III: Mathematics, Informatics, Physics*, vol. 3(52) (2010) 93-100, MR2841725, Zbl.1224.26012.
37. Quantitative convergence theorems for a class of Bernstein-Durrmeyer operators preserving linear functions, [with H. Gonska] *Ukrainischi Matematichi Journal* vol. 62 (2010) 913-922, MR2888659, Zbl 1224.42079., WOS:000287538800005.
38. Simultaneous approximation by a class of Bernstein-Durrmeyer operators preserving linear functions, [with H. Gonska] *Czechoslovak Mathematical Journal*, vol. 60 (135) (2010), no. 3, 783-799. MR2672415, Zbl 1224.41016, WOS:000280595300013.
39. The degree of approximation by Bernstein operators in the knots *General Mathematics* vol. 18, no.1 (2010), 99-112, MR2735593, Zbl 1212.41021.
40. General Voronovskaja and asymptotic theorems in simultaneous approximation, [with H. Gonska] *Mediterranean Journal Math.* vol. 7 (2010), 37-49, MR2645900, Zbl 1194.41026, WOS:000277298600003.
41. A second order weighted modulus on a simplex, *Results in Mathematics* 53 (3-4) (2009), 361-369, MR2524738, Zbl 1181.41042, WOS:000268246300018.
42. Luciana and Alexandru Lupaş: in memoriam, [with S. Gal, H. Gonska, D. Kacsó, E. Stănilă, A. Vernescu] *Results in Mathematics* vol. 53 (3-4) (2009), 203-

- 215, MR2524722, Zbl 1181.01045, WOS:000268246300002.
43. Asymptotic expansion for Durrmeyer operators in complex domains, *Proceedings of The 6-th Congress of Romanian Mathematicians, București, 2007*, Romanian Academy Publisher, 2008, 347–353, MR2641586, Zbl 1212.41084.
44. On approximation by Bernstein operators in the knots, *Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity* vol. 6, (2008) 91–96. Zbl 1162.41003, MR2735593.
45. Modified Szász-Mirakjan operators of integral form, *Carpathian Journal of Mathematics* vol. 24 (3-4) (2008), 378-385, Zbl 1249.41064, WOS:000271005800015.
46. Asymptotic formulae for exponential operators, [with C. Cismașiu] *Bulletin of the Transilvania University of Brașov, Series III: Mathematics, Informatics, Physics*, vol. 1(50), (2008), 459-464, MR2478046, Zbl 1299.41040.
47. On some constants in approximation by Bernstein operators, *General Mathematics* vol. 16, no. 4 (2008), 137–148. MR2471279, Zbl 1199.41136.
48. General Voronovskaja theorem in simultaneous approximation, *Schriftenreihe des Fachbereichs Mathematik, Univ. Duisburg-Essen*, SM-DU-663, 2008.
49. Bernstein-Durrmeyer-type operators which preserve linear functions, [with H. Gonska] *Schriftenreihe des Fachbereichs Mathematik, Univ. Duisburg-Essen*, SM-DU-662, 2008.
50. A class of Durrmeyer type operators preserving linear functions, *Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity*, vol. 5, (2007), 109–117, Zbl 1158.41309.
51. Riesz-type representation for positive linear operators preserving continuity, [with H. Gonska] *Acta Math. Hungarica*, vol. 114 (1-2) (2007), 153-163. MR2294920, Zbl 1121.41021, WOS:000242812300011.
52. Estimates with adapted moduli of continuity for a Chebyshev system, *Proc. International Conference on Numerical Analysis and Approximation Theory, NAAT'06, Cluj-Napoca, July 2006*, Casa Cartii de Stiință, Cluj-Napoca, (2006), 337–352, Zbl 1118.41014, MR2281994.
53. The power series of Bernstein operators, *Automation Computers Applied Mathematics*, Vol. 15, No.1, (2006), 7–14.
54. The estimate of the degree of approximation using an extended Chebyshev system, *Bull. Univ. Transilvania, Brașov, serie B*, vol. 12(47), (2005), 1–8. MR2404689.
55. Approximation of functions in Banach spaces using positive linear operators, in *Mathematical Analysis and Approximation Theory RoGer 2004 Băișoara*, (ed. by Ioan Gavrea, Mircea Ivan), Mediamira Science Publisher, Cluj-Napoca, (2005), 5–20.
56. An inequality involving linear positive operators and convex functions, in *proc. Conference on Analysis, Functional Equations, Approximation and Convexity in Honour of Professor Elena Popoviciu on the Occasion of Her 80th Birthday*, (ed. by L. Lupșa and M. Ivan), Risoprint Press, Cluj-Napoca, ISBN: 973-656-716-

- 8,(2004), 183–187.
57. Estimates for positive linear operators using an arbitrary Chebychev system, *Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity*, Mediamira, Cluj-Napoca, (2004), 75–84.
58. Optimal constant in approximation by Bernstein operators, *J. Comput. Analysis Appl.* **5**, no. 2, (2003), 195–235. MR1980393, Zbl 1033.41008, WOS:000181504800001.
59. General Estimates for the Ditzian–Totik Modulus, [with I. Gavrea, H. Gonska and G. Tachev] *East Journal of Approximation*, Bulgarian Acad. Vol. 9, no. 2, (2003), 175–194. MR1991849, Zbl 1111.41004.
60. Vector variants of some approximation theorems of Korovkin and of Sendov and Popov, in: *Constructive Theory of functions Varna 2002*, (ed. by B.D. Bojanov), Darba Publ. House, Sofia, ISBN: 954-90126-6-2, (2003), 366–373. MR2092365, Zbl 1021.41016.
61. Estimates with optimal constants for approximation of differentiable functions, In "Proc. of the "Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity", (ed. by E. Popoviciu), Srima Publisher, Cluj-Napoca, (2003).
62. Generalized convex functions, *Proc. of the 17-th. Sci. Sess. on Math. and Appl.*, (ed. by G. Orman), Transilvania Univ. Press, Braşov, ISBN: 973-635-213-7, (2003), 183-204.
63. Approximation of derivatives by nonlinear operators, *L'Analyse Numér. et la Th. de l'Approx.*, Romanian Acad., **31**, no. 2, (2002), 187–194, Zbl 1084.41518.
64. Simultaneous approximation by generalized Durrmeyer operators with Jacobi weights, *Proc. of the 16-th. Sci. Sess. on Math. and Appl.*, (ed. by G. Orman), Univ. Transilvania Braşov, (2002), 59-64.
65. Estimates of approximation by linear operators in the multidimensional case, in: *Mathematical Analysis and Approximation Theory*, (The 5-th Romanian-German Seminar on Approximation Theory and its Applications RoGer 2002 - Sibiu, ed. by A. Lupuş, H. Gonska and L. Lupuş), Burg Verlag, Sibiu, ISBN: 973-85647-4-3, (2002), 207–220. MR2076834, Zbl 1028.41002.
66. Estimates with second order moduli, *Rend. Circ. Mat. Palermo*, **68** Suppl., (2002), 727–738. MR1975481, Zbl 1015.41016.
67. Approximation by Durrmeyer operators with general weights, *Proc. International Symposium on Numerical Analysis and Approximation Theory, Cluj-Napoca 2002, dedicated to the 75-th Anniversary of Professor Dr. Dimitrie D. Stancu*, (ed. by R. Trimbiţaş), Cluj Univ. Press, ISBN: 973-610-166-5, (2002), 396–403. MR2006947, Zbl 1065.41034.
68. Estimates with generalized second order moduli, *Proc. of the "Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity*, (ed. by E. Popoviciu), Srima Publisher, Cluj-Napoca, ISBN: 973-8296-04-8, (2002), 197-210.
69. Generalized Brass operators, *Schriftenreihe des Fachbereichs Mathematik*,

- Gerhard Mercator Univ. Duisburg*, SM-DU-518, (2001), 17 pp.
70. On the estimates with second order modulus with parameter, *Schriftenreihe des Fachbereichs Mathematik, Gerhard Mercator Univ. Duisburg*, SM-DU-507, (2001), 14 pp.
71. Approximation of continuous functions by a sequence of generalized Durrmeyer type operators, *Proc. Annual Meeting of the Romanian Society of Mathematical Sciences, Braşov 2001*, (ed. by E. Păltănea et al.), Vol I, Transilvania Univ. Press, Braşov, ISBN: 973-635-044-4, (2001), 198–201.
72. On a limit operator, *Proc. of the "Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity*, Srma Press, Cluj-Napoca, ISBN: 973-99781-5-0, (2001), 169–180.
73. A note on Durrmeyer-type operators, *Proc. of the 15-th. Sci. Sess. on Math. and Appl.*, (ed. by G. Orman), Univ. Transilvania Braşov, (2001), 37–40.
74. A representation of quasi-convex functions with respect to a n-parameter family, *Seminaire de la Théorie de la Meilleure Approximation, Convexité et Optimization 1960-2000*, Srma Publisher, Cluj-Napoca, ISBN: 973-99781-0-X, (2000), 235–241. Zbl 0989.26008.
75. New type of estimates with moduli of continuity, *Proc. of the 4th Romanian-German Seminar on Approximation Theory and its Applications, Braşov 2000*, ed. by H.Gonska and al., Schriftenreihe des Fachbereichs Mathematik, Gerhard Mercator Univ. Duisburg, SM-DU-485, (2000), 110–114. MR1817270, Zbl 0986.41015.
76. A characterization of algebraical polynomials by symmetry, *Proc. of the 2-nd.Int. Conf. on "Symmetry and antisymmetry in mathematics"*, Univ.Transilvania Braşov, (2000), 275–276.
77. An improved estimate with the second order modulus of continuity, *Proc. of the "Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity*, (ed. by E. Popoviciu), Srma Publisher, Cluj-Napoca, ISBN: 973-98591-9-4, (2000), 167–171.
78. The optimality of some estimates with second order moduli of continuity, *Proc. of the 13-th. Sci. Sess. on Math. and Appl.*, Univ. Transilvania Braşov, (1999), 12–14. MR1758377.
79. Saturation theorem for certain sequence of positive linear operators, in *Analysis, functional equations, approximation and convexit*, (Proc. Conf. in Honour of Professor Elena Popoviciu on the occasion of Her 75th Birthday, ed. by L. Lupşa and M. Ivan), Carpatica Press, Cluj-Napoca, ISBN: 979-97664-9-8, (1999), 227–230. MR1819572, Zbl 1084.41535 .
80. Estimates of the degree of approximation with second order moduli of continuity, *Proc. Annual Meeting of the Romanian Society of Mathematical Sciences, Cluj-Napoca 1998*, (ed. by Gh. Micula, P. Mocanu, I. Şerb), Digital Data Publisher, Cluj-Napoca, ISBN: 973-98789-0-3, (1999), 131–134.
81. On the transformation of the second order modulus by Bernstein operators, *L'Analyse Numér. et la Th. de l'Approx.*, Romanian Acad., **27**, no. 2, (1998), 309–313. MR1817553, Zbl 1007.41011.

82. On the invariant subspace of some type of linear operators, *Studii în metode de analiză numerică și optimizare (Chișinău)*, **1**, no. 1, (1998), 44–46.
83. On an optimal constant in approximation by Bernstein operators, *Rend. Circ. Mat. Palermo*, **52** suppl., (1998), 663–686. MR1644582, Zbl 0905.41009.
84. On the degree of approximation by Bernstein operators, *General Mathematics*, **6** (1998), 65–69. MR1942295, Zbl 1052.41512.
85. Optimal estimates with moduli of continuity, *Result. Math.* **32**, Birkhäuser, Basel, (1997), 318–331. MR1487603, Zbl 0891.41015.
86. Improved estimates of the degree of approximation with second order moduli of continuity - applications, *Proc. Annual Meeting of the Romanian Society of Mathematical Sciences, București, 1997*, (1997), 175–177.
87. New second order moduli of continuity, In: *Approximation and optimization* (Proc. Int. Conf. Approximation and Optimization, Cluj-Napoca 1996, ed. by D.D. Stancu et al.), vol I, Cluj-Napoca: Transilvania Press, (1997), 327–334. MR1487115, Zbl 0887.41021.
88. Convexity of higher order that is invariant under symmetries, *Proc. Internat. Conf. on "Symmetry and antisymmetry in mathematics"*, Univ. Transilvania Brașov, (1996), 93–96.
89. The preservation of the quasiconvexity of higher order by the Bernstein's operators, *L'Analyse Numér. et la Th. de l'Approx.*, Romanian Acad., **25**, no. 1-2, (1996), 195–201. MR1607354, Zbl 0919.26004.
90. Best constants in estimates with second order moduli of continuity, In: *Approximation Theory*, (Proc. Int. Dortmund Meeting on Approximation Theory 1995, ed. by M.W. Müller, M. Felten, D.H. Mache), Akad Verlag, Berlin, serie Mathematica Research vol. 86, ISBN: 3-05-501673-4, (1995), 251–275. MR1377075 (97h:41042), Zbl 0839.41019, WOS:A1995BE70Y00014.
91. A property of an interpolating operator, *Studia Univ. Babeș-Bolyai*, **37**, no. 4, (1992), 57–62. MR1325004, Zbl 0911.41011.
92. Algorithm for rounded and coaxial derivations measurement, [with I. Popescu, B. Merfea, C. Cioară] *VDI Berichte*, Duisburg, **940**, (1992), 55–60.
93. Estimates of the estimation of functions by positive linear operators, *Proc. Sci. Sess. with teachers and researches of Rep. Moldova*, Univ. Transilvania, Brașov, (1991), 101–104.
94. Une généralisation de la notion de convexité, *Research Semin. Fac. Math. "Babeș-Bolyai" Univ.*, **6**, (1990), 193–196.
95. On the estimate of the pointwise approximation of functions by linear positive functionals, *Studia Univ. Babeș-Bolyai*, **53**, no. 1, (1990), 11–24. MR1162290, Zbl 0772.41022.
96. Functions whose level sets are all perfect, [with R. Sătnoianu] *Real Analysis Exchange*, **15**, no. 2 (1989-1990), 548–558. MR1059420, Zbl 0708.26003.
97. Sur la sommation des séries entiers sur la frontière de convergence, par des methodes d'Euler généralisées, *Bul. Univ. Brașov*, serie C, **31**, (1989), 35–40, Zbl 0701.40001.

98. Estimates with second order moduli of continuity (Synthesis) , *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **4**, (1989), 47–78. MR1046636, Zbl 0689.41016.
99. General estimates for linear positive operators that preserve linear functions, *Anal. Numér. Théor. Approx.*, Romanian Acad., **18**, no. 2, (1989), 147–159. MR1089231, Zbl 0721.41031.
100. Improved estimates with the second order modulus of continuity in approximation by linear positive operators, *Anal. Numér. Théor. Approx.*, Romanian Acad., **17**, no. 2, (1988), 171–179. MR1027224, Zbl 0672.41015.
101. Methodes de sommation d'Euler généralisées, *Bul. Univ. Braşov, serie C*, **30**, (1988), 124–131. MR1048196, MR0971116, Zbl 0674.40005.
102. Improved constant in approximation with Bernstein operators, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.* **6**, (1988), 261–268. MR0993580, Zbl 0666.41014.
103. Une classe générale d'opérateurs polynômiaux. *L'Analyse Numér. et la Th. de l'Approx.*, Romanian Acad., **17**, no. 1, (1988), 49–52, 1988. MR0985847.
104. Sur une classe d'opérateurs positifs, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **6**, (1987), 251–254. MR0993541, Zbl 0649.47034.
105. L'estimation de l'approximation des dérivées d'ordre r par les polynômes de Brass, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **7**,(1986), 207–210, Zbl 0626.41011.
106. Une propriété d'extremalité des valeurs propres des opérateurs polynômiaux de Durrmeier généralisés, *L'Analyse Numér. et la Th. de l'Approx.*, Romanian Acad., **15**, no. 1, (1986), 57–64. MR0870679, Zbl 0602.41023.
107. On the connection between positive linear operators and a Chebyshev systems of three functions, (romanian) in: *Applied Mathematics and Mecanics*, vol I, University of Braşov, (1985), 125–131.
108. Inverse theorems for a polynomial operator, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **6**, (1985), 149–152, MR0842228.
109. L'estimation de l'approximation des fonctions continues par les opérateurs de Brass, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **6**,(1984), 261–263. MR0788734.
110. Sur un opérateur polynômial défini sur l'ensemble des fonctions integrables, *Research Semin. Fac. Math. "Babeş-Bolyai" Univ.*, **2**, 101–106, (1983). MR0750503, Zbl 0539.41023
111. An example of grammar wich generates the true formulae of propositional calculus (Romanian), *Bul. Univ. Braşov, serie C*, **22**, (1980), 93–100. MR0648510, Zbl 0595.03025.

Participations to scientific conferences

a. Abroad

- "IDOMAT" Dortmund-Witten (Germany) (1995)
- "FAAT", Maratea (Italy) (1995)
- "FAAT", Maratea (Italy) (2000)
- "CTF", Varna (Bulgaria) (2002)
- "RoGer" Köningswinter (Germany) (2007)
- "FAAT", Maratea (Italy) (2009)
- "ICOM", Istanbul (Turcia) (2018)
- "FAATNA", Matera (Italy) (2022)

b. In Romania

More than 80 national and international conferences.

Research visits

Research visits at Institute of Mathematics, University of Duisburg-Essen in 2001, 2005, 2006, 2007, 2014

Grants

- Co-director grant with Education Ministry *Studies on approximation of functions and on convexity* 1994.
- Director Grant CNCSIS A 431/2006 *Studies on approximation theory, optimizations, stochastic approximation and applications*, 2006-2008.

Reviewer: MathScinet and Zentralblatt MATH.

October 20 2022