

# List of publications

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## Books

1. Atanasiu, Dragu; Mikusiński, Piotr, Linear Algebra: Core Topics For The First Course, World Scientific, 2020, ISBN: 978-981-121-596-4
2. Atanasiu, Dragu; Mikusiński, Piotr, A Bridge to Linear Algebra, World Scientific, 2019, ISBN: 978-981-120-022-9
3. Mikusiński, Jan; Mikusiński, Piotr, An Introduction to Analysis, World Scientific, 2017, ISBN: 978-981-3202-61-0
4. Debnath, Lokenath; Mikusiński, Piotr, Introduction to Hilbert Spaces with Applications, Third Edition, Elsevier/Academic Press, Inc., 2005. ISBN: 0-12-208438-1
5. Mikusiński, Piotr; Taylor, Michael D., An Introduction to Multivariable Analysis: From Vector to Manifold, Birkhauser, 2001. ISBN: 0-8176-4234-X
6. Debnath, Lokenath; Mikusiński, Piotr, Introduction to Hilbert spaces with applications, Second Edition, Academic Press, Inc., San Diego, CA, 1998. ISBN: 0-12-208436-5
7. Mikusiński, Jan; Mikusiński, Piotr, An Introduction to Analysis: From Number to Integral, John Wiley & Sons, Inc., New York, 1993. ISBN: 0-471-58988-8
8. Debnath, Lokenath; Mikusiński, Piotr, Introduction to Hilbert spaces with applications, Academic Press, Inc., Boston, MA, 1990. ISBN: 0-12-208435-7

## Mathematics Research Papers

1. Mikusiński, P., Ward, J. P., On the Radon-Nikodym Property for Vector Measures and Extensions of Transfunctions, *Annales Mathematicae Silesianae* 35 (2020), 77–89. doi: 10.2478/amsil-2020-0022
2. Bentley, J.; Mikusiński, P., Transfunctions and their connections to Plans, Markov Operators and Optimal Transport, arXiv:1810.08349.
3. Bentley, J.; Mikusiński, P., Localized Transfunctions, *International Journal of Applied Mathematics* 31 (2018), 689–707.

4. Mikusiński, P., Pseudoquotient extensions of measure spaces, arXiv:1805.12205.
5. Mikusiński, P., Transfunctions, arXiv:1507.03441.
6. Colebunders, E.; Boustique, H.; Mikusiński, P.; Richardson, G.; Convergence Approach Spaces: Actions, Applied Categorical Structures 24 (2016), 147–161. doi:10.1007/s10485-015-9390-2.
7. Katsevich, A.; Mikusiński, P., On De Graaf spaces of pseudoquotients, Rocky Mountain J. Math. 45 (2015), 1445–1455.
8. Atanasiu, D.; Mikusiński, P., An elementary operational calculus, The Mathematical Gazette 99 (2015), 54–59. doi:10.1017/mag.2014.7
9. Mikusiński, P., Integrals with values in Banach spaces and locally convex spaces, arXiv:1403.5209v4.
10. Atanasiu, D.; Mikusiński, P.; Siple, A., Pseudoquotients on commutative Banach algebras, Banach J. Math. Anal. 8 (2014), 60–66.
11. Burzyk, J.; Mikusiński, P., Distributions of finite order as a space of pseudoquotients, Integral Transform. Spec. Funct. 25 (2014), 318–323.
12. Katsevich, A.; Mikusiński, P., Order in spaces of pseudoquotients, Topology Proceedings 44 (2014), 21–31.
13. Blackstone, E.; Mikusiński, P., The Daniell Integral, arXiv:1401.0310.
14. Majeed, A.; Mikusiński, P., Derivations on pseudoquotients, Ukrainian Mathematical Journal 65 (2013), 959–966.
15. Beardsley, J.; Mikusiński, P., A Sheaf of Boehmians, Ann. Polon. Math. 107 (2013), 293–307.
16. Mikusiński, P.; Purtee, S., Connectedness in spaces of pseudoquotients, Topology Proceedings 40 (2012), 283–288.
17. Atanasiu, D.; Mikusiński, P., Nemzer, D., An algebraic approach to tempered distributions, J. Math. Anal. Appl. 384 (2011), 307–319.
18. Mikusiński, P., Boehmians and pseudoquotients, Appl. Math. Inf. Sci. 5 (2011), 192–204.
19. Boustique, H.; Mikusiński, P.; Richardson, G., Convergence Semigroup Categories, Applied General Topology, 11 (2010), 67–88.
20. Kim, H. J.; Mikusiński, P., On Convergence and Metrizability of Pseudoquotients, Int. J. Mod. Math. 5 (2010), 285–298.

21. Atanasiu, D.; Mikusiński, P., Fourier transform of Radon measures on locally compact groups, *Integral Transform. Spec. Funct.* 21 (2010), 815–821.
22. Boustique, H.; Mikusiński, P.; Richardson, G., Convergence Semigroup Actions: Generalized Quotients, *Applied General Topology*, 10 (2009), 173–186.
23. Mikusiński, P.; Taylor, M. D., Some Approximations of  $n$ -Copulas, *Metrika* 72 (2010), 385–414. DOI 10.1007/s00184-009-0259-y.
24. Mikusiński, P.; Taylor, M. D., Markov Operators and  $n$ -Copulas, *Ann. Pol. Math.*, 96 (2009), 75–95.
25. Burzyk, J.; Ferens, C.; Mikusiński, P., On the Topology of Generalized Quotients, *Applied General Topology*, 9 (2008), 205–212.
26. Atanasiu, D.; Mikusiński, P., The Fourier transform of Levy measures on a semigroup, *Integral Transform. Spec. Funct.*, 19 (2008), 537–543.
27. Atanasiu, D.; Mikusiński, P., On the Fourier Transform, Boehmians, and Distributions, *Colloquium Mathematicum* 108 (2007), 263–276.
28. Atanasiu, D.; Mikusiński, P., On the Fourier Transform and the Exchange Property, *Internat. J. Math. Math. Sci.* 16 (2005), 2579–2584.
29. Edwards, H. H.; Mikusiński, P.; Taylor, M. D., Measures of Concordance Determined by  $D_4$ -Invariant Copulas, *Internat. J. Math. Math. Sci.* 70 (2004), 3867–3875.
30. Burzyk, J.; Mikusiński, P.; Nemzer, D., Remarks on topological properties of Boehmians, *Rocky Mountain J. Math.* 35 (2005), 727–740.
31. Burzyk, J.; Mikusiński, P., A characterization of distribution of finite order in the space of Boehmians, *Integral Transform. Spec. Funct.* 16 (2005), 639–646.
32. Edwards, H. H.; Mikusiński, P.; Taylor, M. D., Measures of Concordance Determined by  $D_4$ -Invariant Measures on  $(0, 1)^2$ , *Proc. Amer. Math. Soc.* 133 (2005), 1505–1513.
33. Burzyk, J.; Mikusiński, P.; A generalization of the construction of a field of quotients with applications in analysis, *Int. J. Math. Sci.* 2 (2003), 229–236.
34. Mikusiński, P.; Generalized quotients with applications in analysis, *Methods Appl. Anal.* 10 (2003), 377–386.
35. Mikusiński, P., Generalized Functions and Convolutions, *Cubo Matematica Educacional*, 5 (2003), 197–212.
36. Li, X.; Mikusiński, P.; Taylor, M. D., Remarks on Convergence of Markov Operators, *Houston J. Math.*, 28 (2002), 907–916.

37. Li, X.; Mikusiński, P.; Taylor, M. D., Some Integration-by-parts Formulas Involving 2-copulas, *Distributions with Given Marginals and Statistical Modeling* (Barcelona, 2000), 153–159, Kluwer Acad. Publ., Dordrecht, 2002.
38. Mikusiński, P.; Morimoto, M., Boehmians on the sphere and their spherical harmonic expansions, *Fract. Calc. Appl. Anal.* 4 (2001), 25–35.
39. Mikusiński, P., Boehmians on manifolds, *Internat. J. Math. Math. Sci.*, 24 (2000), 583–588.
40. Mikusiński, P.; Taylor, M. D., A Remark on Associative Copulas, *Comment. Math. Univ. Carolinae* 40 (1999), 789–793.
41. Mikusiński, P.; Pyle, B. A., Boehmians on the Sphere, *Integral Transform. Spec. Funct.* 10 (2000), 93–100.
42. Li, X.; Mikusiński, P.; Taylor, M. D., Strong Approximation of Copulas, *J. Math. Anal. Appl.* 225 (1998), 608–623.
43. Li, X.; Mikusiński, P.; Sherwood, H.; Taylor, M. D., On approximation of copulas, *Distributions with given marginals and moment problems* (Prague, 1996), 107–116, Kluwer Acad. Publ., Dordrecht, 1997.
44. Mikusiński, P., On flexibility of Boehmians, *Proceedings of the Conference “Different Aspects of Differentiability”, II* (Warsaw, 1995), *Integral Transform. Spec. Funct.* 4 (1996), 141–146.
45. Li, Xin; Mikusiński, P.; Sherwood, H.; Taylor, M. D., In quest of Birkhoff’s theorem in higher dimensions, *Distributions with fixed marginals and related topics* (Seattle, WA, 1993), 187–197, *IMS Lecture Notes Monogr. Ser.* 28, Inst. Math. Statist., Hayward, CA, 1996.
46. Caron, R. M.; Li, Xin; Mikusiński, P.; Sherwood, H.; Taylor, M. D., Nonsquare "doubly stochastic" matrices, *Distributions with fixed marginals and related topics* (Seattle, WA, 1993), 65–75, *IMS Lecture Notes Monogr. Ser.*, 28, Inst. Math. Statist., Hayward, CA, 1996.
47. Mikusiński, P., Transforms of Boehmians, *Different aspects of differentiability* (Warsaw, 1993). *Dissertationes Math. (Rozprawy Mat.)* 340 (1995), 201–206.
48. Mikusiński, P.; Mott, M. L., The integral wavelet transform of convolutors, *Integral Transform. Spec. Funct.* 3 (1995), 99–105.
49. Zayed, A. I.; Mikusiński, P., On the extension of the Zak transform, *Methods Appl. Anal.* 2 (1995), 160–172.
50. De Lia, A.; Mikusiński, P., A Daniell-type integral with values in a Banach space, *Arch. Math. (Basel)* 65 (1995), 417–423.

51. Mikusiński, P., Tempered Boehmians and ultradistributions, *Proc. Amer. Math. Soc.* 123 (1995), 813–817.
52. Mikusiński, P.; Morse, A.; Nemzer, D., The two-sided Laplace transform for Boehmians, *Integral Transform. Spec. Funct.* 2 (1994), 219–230.
53. Mikusiński, P.; Tighiouart, M., Value of a Boehmian at a point and at infinity, *Rocky Mountain J. Math.* 24 (1994), 1039–1054.
54. Mikusiński, P., The Fourier transform of tempered Boehmians, *Fourier analysis* (Orono, ME, 1992), 303–309, *Lecture Notes in Pure and Appl. Math.*, 157, Dekker, New York, 1994.
55. Mikusiński, P.; Zayed, A., An extension of the Radon transform, *Generalized functions and their applications* (Varanasi, 1991), 141–147, Plenum, New York, 1993.
56. Mikusiński, P.; Taylor, M. D., Toward a unified theory of generalized functions: convergence, *Math. Nachr.* 161 (1993), 27–43.
57. Mikusiński, P.; Phillips, M.; Sherwood, H.; Taylor, M. D., The Fréchet transform, *Internat. J. Math. Math. Sci.* 16 (1993), 155–164.
58. Mikusiński, P.; Zayed, A., The Radon transform of Boehmians, *Proc. Amer. Math. Soc.* 118 (1993), 561–570.
59. Dill, E. R.; Mikusiński, P., Strong Boehmians, *Proc. Amer. Math. Soc.* 119 (1993), 885–888.
60. Mikusiński, P.; Sherwood, H.; Taylor, M. D., Shuffles of Min, *Stochastica* 13 (1992), 61–74.
61. Mikusiński, P.; Sherwood, H.; Taylor, M. D., The Fréchet bounds revisited, *Real Anal. Exchange* 17 (1991/92), 759–764.
62. Mikusiński, P.; Sherwood, H.; Taylor, M. D., Probabilistic interpretations of copulas and their convex sums, *Advances in probability distributions with given marginals* (Rome, 1990), 95–112, *Math. Appl.*, 67, Kluwer Acad. Publ., Dordrecht, 1991.
63. Mikusiński, P.; Ostaszewski, K., The space of Henstock integrable functions. II, *New integrals* (Coleraine, 1988), 136–149, *Lecture Notes in Math.*, 1419, Springer, Berlin, 1990.
64. Mikusiński, P., Boehmians on open sets, *Acta Math. Hungar.* 55 (1990), 63–73.
65. Mikusiński, P.; Sherwood, H.; Taylor, M. D., Łojasiewicz's support and doubly stochastic measures, *Proc. Amer. Math. Soc.* 109 (1990), 455–460.
66. Kamiński, A.; Mikusiński, P.; Sherwood, H.; Taylor, M. D., Doubly stochastic measures, topology, and latticework hairpins, *J. Math. Anal. Appl.* 152 (1990), 252–268.

67. Mikusiński, P., On the Daniell integral, *Real Anal. Exchange* 15 (1989/90), 307–312.
68. Mikusiński, P., A remark on regular operators, *Rocky Mountain J. Math.* 19 (1989), 429–432.
69. Mikusiński, P., On delta sequences, *Rend. Istit. Mat. Univ. Trieste* 19 (1987), 165–175.
70. Kamiński, A.; Mikusiński, P.; Sherwood, H.; Taylor, M. D., Properties of a special class of doubly stochastic measures, *Aequationes Math.* 36 (1988), 212–229.
71. Mikusiński, P., On harmonic Boehmians, *Proc. Amer. Math. Soc.* 106 (1989), 447–449.
72. Mikusiński, P., Boehmians and generalized functions, *Acta Math. Hungar.* 51 (1988), 271–281.
73. Mikusiński, P., On the completion of measures, *Arch. Math. (Basel)* 50 (1988), 259–263.
74. Mikusiński, P., Fourier transform for integrable Boehmians, *Rocky Mountain J. Math.* 17 (1987), 577–582.
75. Mikusiński, P., Comparison of families of pseudonorms, *Ann. Math. Sil. No.* 13 (1985), 163–168.
76. Mikusiński, P., Bases of convergence and diagonal conditions, *Rend. Istit. Mat. Univ. Trieste* 15 (1983), 32–38.
77. Mikusiński, P.; Pochcial, J., On Mackey convergence, *Bull. Polish Acad. Sci. Math.* 31 (1983), 151–155.
78. Mikusiński, P., Convergence of Boehmians, *Japan. J. Math. (N.S.)* 9 (1983), 159–179.
79. Mikusiński, P., On pseudonormability of some particular classes of spaces, *Czechoslovak Math. J.* 33 (108) (1983), 499–504.
80. Mikusiński, P.; Pochcial, J., On bases of convergence, Convergence structures and applications, II (Schwerin, 1983), 163–166, *Abh. Akad. Wiss. DDR, Abt. Math. Naturwiss. Tech.*, 84–2, Akademie-Verlag, Berlin, 1984.
81. Mikusiński, P., Convergence dans l'ensemble des quotients de suites (French), [Convergence in the space of quotients of sequences], *C. R. Acad. Sci. Paris Sér. I Math.* 294 (1982), 87–89.
82. Mikusiński, P., Axiomatic theory of convergence (Polish), *Prace Naukowe Uniwersytetu Śląskiego w Katowicach, Prace Matematyczne*, No. 12 (1982), 13–21.
83. Mikusiński, J.; Mikusiński, P., Quotients de suites et leurs applications dans l'analyse fonctionnelle (French), [Quotients of sequences and their applications in functional analysis], *C. R. Acad. Sci. Paris Sér. I Math.* 293 (1981), 463–464.

84. Burzyk, J.; Mikusiński, P., On normability of semigroups, *Bull. Acad. Polon. Sci. Sér. Sci. Math.* 28 (1980), 33–35 (1981).
85. Mikusiński, P., A general concept of convergence, *Proceedings of the Second Conference on Convergence (Szczyrk, 1980)*, pp. 46–53, *Polsk. Akad. Nauk, Oddział w Katowicach, Katowice, Poland, 1981.*
86. Mikusiński, J.; Mikusiński, P., Algebra of convergence, *Proceedings of the Conference on Convergence (Szczyrk, 1979)*, pp. 81–83, *Polsk. Akad. Nauk, Oddział w Katowicach, Katowice, Poland, 1980.*
87. Mikusiński, P., On extension of pseudonorms, *Proceedings of the Conference on Convergence (Szczyrk, 1979)*, pp. 84–86, *Polsk. Akad. Nauk, Oddział w Katowicach, Katowice, Poland, 1980.*
88. Mikusiński, P., Cauchy sequences in abelian groups, *Bull. Acad. Polon. Sci. Sér. Sci. Math. Astronom. Phys.* 26 (1978), 707–709.
89. Mikusiński, J.; Mikusiński, P., Natural numbers and their axiomatization (Polish), *Wiadom. Mat. (2)* 19 (1976), 137–140.

## Other Research Papers

1. Cakit, E.; Karwowski, W.; Bozkurt, H.; Ahram, T.; Thompson, W.; Mikusiński, P.; Lee, G.; Investigating the Relationship between Adverse Events and Infrastructure Development in an Active War Theater Using Soft Computing Techniques, *Applied Soft Computing* (2014). DOI: 10.1016/j.asoc.2014.09.028.
2. Andrzejczak, C.; Karwowski, W.; Mikusiński, P.; Application of diffusion maps to identify human factors of self-reported anomalies in aviation, *WORK: A Journal of Prevention, Assessment and Rehabilitation* 41 (2012), 188–197. DOI: 10.3233/WOR-2012-0155-188.