

PUBLICATIONS

Washek F. Pfeffer

Books:

1. *Integrals and Measures*, Marcel Dekker, New York, 1977.
2. *The Riemann Approach to Integration: Local Geometric Theory*, Cambridge University Press, Cambridge, 1993.
3. *Derivation and Integration*, Cambridge University Press, Cambridge, 2001.
4. *The Divergence Theorem and Sets of Finite Perimeter*, CRC Press, Boca Raton, 2012.

In Journals:

1. *The Perron integral in topological spaces*, Časopis pro Pěstování Matematiky, 88(1963), 322–348 (Russian).
2. *On a definition of the integral in topological spaces*, Part I, Časopis pro Pěstování Matematiky, 89(1964), 129–147 (Russian).
3. *On a definition of the integral in topological spaces*, Part II, Časopis pro Pěstování Matematiky, 89(1964), 257–277 (Russian).
4. *A note on the surface of sets*, Časopis pro Pěstování Matematiky, 89(1964), 148–154 (Czech).
5. *A note on the lower derivate of a set function and semihereditary systems of sets*, Proceedings of the American Mathematical Society, 18(1967), 1020–1025.
6. *On the stress equation for a heated rotating disc*, SIAM Journal for Applied Mathematics, 16(1968), 395–407.
7. *On the lower derivate of a set function*, Canadian Journal of Mathematics, 20(1968), 1489–1498.
8. *An integral in topological spaces*, Bulletin of the American Mathematical Society, 75(1969), 433–439.
9. *A note on cluster points of a semihereditary stable system of sets* (with W.J. Wilbur), Proceedings of the American Mathematical Society, 21(1969), 121–125.
10. *An integral in topological spaces I*, Journal of Mathematics and Mechanics, 18(1969), 953–972.
11. *A note on nets*, Mathematical Journal of Okayama University, 14(1969), 1–5.
12. *Singular integrals are Perron integrals of a certain type*, Canadian Journal of Mathematics, 22(1970), 260–264.
13. *On the measurability of Perron integrable functions* (with W.J. Wilbur), Pacific Journal of Mathematics, 34(1970), 131–144.
14. *An integral in topological spaces II*, Mathematica Scandinavica, 27(1970), 77–104.
15. *On involutions of a circle*, American Mathematical Monthly, 79(1972), 159–160. Reprinted in "Selected Papers on Geometry", Mathematical Association of America, 1979.
16. *Mathematics and reality*, Universitas, University of Ghana, 1(1972), 47–55.
17. *On the regularity of Borel measures*, Mathematics Colloquium, University of Cape Town, 8(1973), 125–142.
18. *More on involutions of a circle*, American Mathematical Monthly, 81(1974), 613–616.
19. *On some subspaces of the Helly space*, Colloquium Mathematicum, 35(1976), 41–46.

20. *On generalized Borel sets*, Journal of the Australian Mathematical Society, 25(1978), 29–34.
21. *When inner regularity of Borel measures implies outer regularity* (with G. Gruenhage), Journal of the London Mathematical Society, 17(1978), 165–171.
22. *A computer-graded examination technique with a human face* (with A.P. Fenech and D.P. Melcon), American Mathematical Monthly, 86(1979), 586–589.
23. *Some properties of the Sorgenfrey line and related spaces* (with E.K. van Douwen), Pacific Journal of Mathematics, 81(1979), 371–377.
24. *Are diffused, regular, Radon measures σ -finite?* (with R.J. Gardner), Journal of the London Mathematical Society, 20(1979), 485–494.
25. *Some undecidability results concerning Radon measures* (with R.J. Gardner), Transactions of the American Mathematical Society, 259(1980), 65–74. Translated into Russian in Proceedings of the Steklov Institute, 154(1983), 71–80.
26. *Relation between regularity and σ -finiteness of Radon Measures* (with R.J. Gardner), Russian Mathematical Surveys, 35(1980), 35–40.
27. *Some questions in measure theory which cannot be answered*, Notices of the South African Mathematical Society 12(1980), 164–173.
28. *Lorentz transformations of a Hilbert space*, American Journal of Mathematics, 203(1980), 691–709.
29. *The existence of locally fine simplicial subdivisions*, Journal of the Australian Mathematical Society, 33(1982), 114–124.
30. *The spaces which contain an S -space*, Proceeding of the American Mathematical Society, 85(1982), 659–660.
31. *Integration by parts for the generalized Riemann-Stieltjes integral*, Journal of the Australian Mathematical Society, 34(1983), 229–233.
32. *Borel measures* (with R.J. Gardner), Handbook of Set-theoretic Topology, K. Kunen and J.E. Vaughan, ed., North-Holland, Amsterdam, 1984, 961–1043.
33. *Decomposability of Radon measures* (with R.J. Gardner), Transactions of the American Mathematical Society, 283(1984), 283–293.
34. *A Riemann-type integral and the divergence theorem*, Comptes Rendus Academie des Sciences de Paris, 299(1984), 299–301 (French).
35. *The Dirichlet problem with Denjoy-Perron integrable boundary condition* (with M. Benedicks), Canadian Mathematical Bulletin, 28(1985), 113–119.
36. *The divergence theorem*, Transactions of the American Mathematical Society, 295(1986), 665–685.
37. *A Riemann integral in a locally compact Hausdorff space* (with S.I. Ahmed), Journal of the Australian Mathematical Society, 41(1986), 115–137.
38. *On the continuity of the Volterra variational derivative*, Journal of Functional Analysis, 71(1987), 195–197.
39. *The multidimensional fundamental theorem of calculus*, Journal of the Australian Mathematical Society, 43(1987), 143–170.
40. *A topological concept of smallness* (with K. Prikry), Proceedings of the National Academy of Sciences USA, 84(1987), 3957–3958.
41. *Stokes theorem for forms with singularities*, Comptes Rendus Academie des Sciences de Paris, 306(1988), 589–592.

42. *A Riemann type integral and the fundamental theorem of calculus*, Rendiconti del Circolo Matematico di Palermo, 36(1987), 482–506.
43. *A note on the generalized Riemann integral*, Proceedings of the American Mathematical Society, 103(1988), 1161–1166.
44. *On the generalized Riemann integral defined by means of special partitions*, Real Analysis Exchange, 14(1988–89), 506–511.
45. *Gauss-Green theorem* (announcement), Real Analysis Exchange, 14(1988–89), 523–527.
46. *Small spaces* (with K. Prikry), Proceedings of the London Mathematical Society, 58(1989), 417–438.
47. *A characterization of cardinals λ such that $2^\lambda = 2^\kappa$ whenever $\kappa \leq \lambda < 2^\kappa$* (with K. Prikry), Israel Journal of Mathematics, 65(1989), 293–301.
48. *The multidimensional variational integral and its extensions* (with Wei-Chi Yang), Real Analysis Exchange, 15(1989–90), 111–169.
49. *Hake's property of a multidimensional generalized Riemann integral* (with J. Mawhin), Czechoslovak Mathematical Journal, 40(1990), 690–694.
50. *Gauss-Green theorem*, Advances in Mathematics, 87(1991), 93–147.
51. *A descriptive definition of a variational integral and applications*, Indiana University Mathematical Journal, 40(1991), 259–270.
52. *Poisson integrals of Riemann integrable functions* (with J. Král), American Mathematical Monthly, 98(1991), 929–931.
53. *An integral defined by approximating BV partitions of unity* (with J. Kurzweil and J. Mawhin), Czechoslovak Mathematical Journal, 41(1991), 695–712.
54. *A note on conditionally convergent integrals* (with Wei-Chi Yang), Real Analysis Exchange, 17(1991–92), 815–819.
55. *A Riemann type definition of a variational integral*, Proceedings of the American Mathematical Society, 114(1992), 99–106.
56. *Some nonabsolutely convergent integrals in the real line* (with B. Bongiorno and M. Giertz), Bollettino dell'Unione Matematica Italiana, 7(1992), 371–402.
57. *A concept of absolute continuity and a Riemann type integral* (with B. Bongiorno), Commentationes Mathematicae Universitatis Carolinae, 33(1992), 189–196.
58. *Measures defined by gages* (with B.S. Thomson), Canadian Journal of Mathematics, 44(1992), 1306–1316.
59. *A Volterra type derivative of the Lebesgue integral*, Proceedings of the American Mathematical Society, 117(1993), 411–416.
60. *Jan Mařík — obituary*, Real Analysis Exchange, 19(1993–94), 352–356.
61. *An invariant Riemann type integral defined by figures* (with A. Novikov), Proceedings of the American Mathematical Society, 120(1994), 849–853.
62. *Multipliers for the generalized Riemann integral* (with J.W. Mortensen), Journal of Mathematical Analysis and Applications, 187(1994), 538–547.
63. *A full descriptive definition of the BV-integral* (with B. Bongiorno and L. Di Piazza), Commentationes Mathematicae Universitatis Carolinae, 36(1995), 461–469.
64. *The generalized Riemann-Stieltjes integral*, Real Analysis Exchange, 21(1995–96), 1–28.
65. *A full descriptive definition of the gage integral* (with B. Bongiorno and B.S. Thomson), Canadian Mathematical Bulletin, 39(1996), 390–401.

66. *Comparing variations of charges*, Indiana University Mathematics Journal, 45(1996), 643–654.
67. *Variations of Additive functions* (with Z. Buczolic), Czechoslovak Mathematical Journal, 47(1997), 525–555.
68. *On variations of functions of one real variable*, Commentationes Mathematicae Universitatis Carolinae, 38(1997), 61–71.
69. *When absolutely continuous implies σ -finite* (with Z. Buczolic), Bulletin of the Royal Belgian Academy, Class of Science, 6, VIII(1997), 155–160.
70. *On absolute continuity* (with Z. Buczolic), Journal of Mathematical Analysis and Applications, 222 (1998), 64–78.
71. *Multipliers for generalized Riemann integrals* (with Z. Buczolic and T. De Pauw), Mathematical Reports of the Canadian Academy of Science, 21–4(1999), 139–145.
72. *The Lebesgue and Denjoy-Perron integrals from a descriptive point of view*, Ricerche di Matematica, 48(1999), 211–223.
73. *Charges, BV functions, and multipliers for generalized Riemann integrals* (with Z. Buczolic and T. De Pauw), Indiana University Mathematics Journal, 48(2000), 1471–1511.
74. *On indefinite BV integrals* (with B. Bongiorno and U. Darji), Commentationes Mathematicae Universitatis Carolinae, 41(2000), 843–853.
75. *The Stokes theorem for the generalized Riemann integral*, Real Analysis Exchange, 27(2001–02), 623–636.
75. *Derivatives and primitives*, Invited paper, Scientiae Mathematicae Japonicae, 55–2(2002), 399–425.
76. *The Gauss-Green theorem and removable singularities for PDEs in the divergence form* (with T. De Pauw), Advances in Mathematics, 183(2004), 155–182.
77. *Luzin’s theorem for charges* (with E.J. Howard), Proceedings of the American Mathematical Society, 132(2004), 857–863.
78. *The Gauss-Green theorem in the context of Lebesgue integration*, Bulletin of the London Mathematical Society, 37(2005), 81–94.
79. *The divergence theorem for unbounded vector fields* (with T. De Pauw), Transactions of the American Mathematical Society, 325(2007), 5415–5929.
80. *The multidimensional Luzin theorem* (with L. Moonens), Journal for Mathematical Analysis and Applications, 339(2008), 746–752.
81. *Distributions for which $\operatorname{div} v = F$ has a continuous solution* (with T. De Pauw), Communications on Pure and Applied Mathematics, LXI(2008), 230–260.
82. *Ralph Henstock’s influence on the integration theory*, Scientiae Mathematicae Japonicae, 67–1(2008), 37–50.
83. *A devil’s platform*, American Mathematical Monthly, 115(2008), 943–947.
84. *Hölder conditions in the divergence theorem*, Scientiae Mathematicae Japonicae, 69–3(2009), 57–68.
85. *Charges in middle dimensions* (with T. DePauw and L. Moonens), Journal de Mathématiques Pures et Appliquées, 92(2009), 86–112.
86. *Henstock-Kurzweil integral on BV sets* (with Jan Malý), Mathematica Bohemica, 141(2016), 217–237.
87. *Homology of normal chains and cohomology of charges* (with T. De Pauw and R.M. Hardt), Memoires of the American Mathematical Society, 247(2017), No. 1172.

88. *Chains and forms in compact metric spaces*, Journal of Mathematical Analysis and Applications, 475(2019), 51–93.
89. *Comparing Chains in a Banach space*, Ricerche di Matematica, <https://doi.org/s11587-019-00445-z>

In Proceedings:

1. *Some remarks on generalized Borel measures in topological spaces*, Topology Proceedings, 2(1977), 543–562.
2. *The generalized Riemann integral in higher dimensions*, Measure Theory and its Applications, J.M. Belley, J. Dubois and P. Morales, eds., Lecture Notes in Mathematics 1033, Springer-Verlag, New York, 1983, 269–275.
3. *Conditions that imply a space is Radon* (with R.J. Gardner), Measure Theory Oberwolfach 1983, D. Kolzow and D. Maharam-Stone, eds., Lecture Notes in Mathematics 1089, Springer-Verlag, New York, 1984, 11–22.
4. *Divergence theorem for vector fields with singularities*, New Integrals, P.S. Bullen, P.Y. Lee, J.L. Mawhin, P. Muldowney, W.F. Pfeffer, eds., Lecture Notes in Mathematics No. 1419, Springer-Verlag, New York, 1990, 150–166.
5. *A note on small and other singular sets* (with R.J. Gardner), Proceedings of the Conference on Real Analysis and Measure Theory, Capri, 1988, Atti Sem. Mat. Fis. Univ. Modena, 39(1991), 263–270.
6. *Lectures on geometric integration and the divergence theorem*, Proceedings of the School on Measure Theory and Real Analysis, Grado, 1991, Rend. Math. Univ. Trieste, 23(1991), 261–314.
7. *An integral in geometric measure theory*, Proceedings of the Conference on Real Analysis and Measure Theory, Capri, 1990, Atti Sem. Mat. Fis. Univ. Modena, 41(1993), 59–76.
8. *Recent developments in geometric integration theory*, Real Analysis Exchange, 19:1(1993–94), 28–31.
9. *Regularity and decomposability of Radon measures*, Proceedings of the Workshop on Measure Theory and Real Analysis, Grado, 1993, Rend. Math. Univ. Trieste, 26(1994), 243–264.
10. *On additive continuous functions of figures*, Proceedings of the Workshop on Measure Theory and Real Analysis, Grado, 1995, Rend. Math. Univ. Trieste, 29(1995), 115–133.
11. *Derivates and variations of charges*, Proceedings of the Conference on Real Analysis and Measure Theory, Ischia, 1996, Atti Sem. Mat. Fis. Univ. Modena, 46(1998), 375–387.
12. *On topological smallness*, Proceedings of the Workshop on Measure Theory and Real Analysis, Grado, 1997, Rend. Istit. Mat. Univ. Trieste, 31(2000), 235–252.
13. *Special relativity without physics*, Proceedings of the Workshop on Measure Theory and Real Analysis, Gorizia, 1999, Rend. Istit. Mat. Univ. Trieste, 33(2001), 251–280.

Technical Notes (not published elsewhere):

1. *An integral in topological spaces*, Technical Note BN-452, Institute for Fluid Dynamics and Applied Mathematics, University of Maryland, College Park, 1966.
2. *The Riemann-Stieltjes approach to integration*, TWISK 187, National Research Institute for Mathematical Sciences, Pretoria, South Africa, 1980.
3. *Vector bundles, Fredholm operators and Bott periodicity* (with G. Naude and J. Swart), SWISK 34, National Research Institute for Mathematical Sciences, Pretoria, South Africa, 1984.
4. *The divergence theorem*, Technical Report 64, University of Petroleum and Minerals, Dhahran, Saudi Arabia, 1984.

5. *Lectures on the generalized Riemann integral*, Mathematics Department, Charles University, Prague, Czech Republic, 1995 (Czech).

Cambridge. The University Press. 1971. P.230. : Rostow W.W. Theory of Economics Growth from David Hume to the Present. With Perspective to the Next Century N.Y. Oxford University Press, 1992. 25. 5% (40 " 50-15, 1890 ." " " Ray D. Development Economics. Princeton University Press. 1998. Ch. 3. P. 47-64. " 1957. 48 Parsons ., Smelser N. Economy and Society: A Study of the Integration of Economic and Social Theory. N.Y. 1965. 68. W.F. Pfeffer, The Riemann Approach to Integration: Local Geometric Theory. Cambridge Tracts in Mathematics, vol. 109 (Cambridge University Press, Cambridge, 1993)Google Scholar. [PF1]. W.F. Pfeffer, Derivation and Integration: Local (Cambridge University Press, Cambridge, 2001)CrossRefzbMATHGoogle Scholar. [PO]. L. Pontryagin, Topological Groups. Transl. Russian, Arlen Brown (Gordon and Breach Science Publishers, New York, 1966)zbMATHGoogle Scholar. [SK]. S. Saks, Theory of the Integral (Dover Publications, New York, 1964)zbMATHGoogle Scholar. [SC]. L. Schwartz, Théorie des Distributions (Herm