

LIST OF PUBLICATIONS

RUDOLF VÝBORNÝ

PAPERS AND BOOKS.

1. *On the weak convergence in locally uniform spaces.* Časopis pro pěstování matematiky (Czech.), **81.** (1956), 352–353.
2. *Dirichlet problem.* Časopis pro pěstování matematiky. (Czech.) **83.** (1958), 99–100.
3. *On properties of solutions of some boundary value problems for parabolic equations.* (Russian), DANSSSR **117.** (1957), 563–565.
4. *On some basic properties of solutions of boundary value problems for parabolic equations.* (Russian.) Czechoslovak Mathematical Journal **8.** (83), (1958), 537–551.
5. *Die Existenz und Eindeutigkeit der Dirichletschen Aufgabe auf allgemeinen Gebieten.* (with I. Babuška.) Czechoslovak Mathematical Journal **9.** (84), 1959, 130–153.
6. *Reguläre und stabile Randpunkte für das Problem der Wärmeleitungsgleichung.* (with I. Babuška.) Annales Polonici Mathematici. XII (1962), 91–104.
7. *Über das Erweiterte Maximumprinzip.* Czechoslovak Mathematical Journal **14.** (89) 1964, 116–120.
8. *On a certain Extension of the Maximum Principle.* Differential Equations and their Applications, Proceedings of the Czechoslovak Conference on Differential Equations, Prague, 1963, 223–228.
9. *Continuous dependence of eigenvalues on the domain.* Czechoslovak Mathematical Journal. (with I. Babuška.) **15.** (90), (1965), 169–178.
10. *A mean value theorem for strongly continuous vector valued functions.* Czechoslovak Mathematical Journal (with J.B. Diaz.) **14.** (88), (1964), 322–323.
11. *On mean value theorem for strongly continuous vector valued functions.* Contributions to the Theory of Differential Equations III. 1964 (with J.B. Diaz.) 107–118.
12. *A Fractional Mean Value Theorem, and Taylor Theorem, for strongly Continuous Vector Valued Functions.* Technical Note BN-347, University of Maryland, College Park, Maryland. 1964 (with J.B. Diaz.) 1–12.
13. *A Fractional Mean Value Theorem, and Taylor Theorem, for Continuous Vector Valued Functions.* Czechoslovak Mathematical Journal (with J.B. Diaz.) **15.** (90), (1965), 299–304.
14. *Maximum principle for weakly nonlinear parabolic equations.* Commentationes Mathematicae Universitatis Carolinae. (with J. Kadlec.) **6.** (1965), 19–20.
15. *Calculus.* (Czech.) Publishing House of the Czechoslovak Academy of Sciences. Prague. 1966.
16. *Mathematical Induction.* (Czech.) Mladá Fronta. Prague. 1963 and 1966.
17. *Über eine Fastlineare Partielle Differentialgleichung von Nicht-hyperbolischen Typus.* (with O. Horáček.) Commentationes Mathematicae Universitatis Carolinae. **7.** (1966), 262–264.
18. *Lecture Series of the University of Maryland 42, Part I. Maximum Principle for Nonhyperbolic Equations, Part II. The Continuous Dependence of eigenvalues on the Domain.*
19. *On some mean value theorems of the differential calculus.* (with J.B. Diaz.) Bull. of the Aust. Math. Soc. **5.** (1971), 227–238.
20. *Elementary proofs of Peano's existence theorem.* (with A. Dow.) Journal of the Australian Mathematical Society. **15.** (1973), 366–372.
21. *A maximum principle for some quasi-linear second order partial differential equations.* (with A. Dow.) Rendiconti Seminario Matematico della Università di Padova. **47.** (1972), 331–351.
22. *Hadamard's three-circles theorems for a quasi-linear elliptic equation.* Bulletin of the American Math. Society. **80.** (1974), 81–84.
23. *Generalized mean value theorems of the differential calculus.* (with J.B. Diaz.) Journal of the Australian Mathematical Society. **20** (1975), 290–300.
24. *The series $\sum \frac{1}{n^\alpha}$.* Mathematical Spectrum **8.** (1975/76), 29–30.

25. *Mathematical Induction*. Newsletter of the Queensland Association of Math. Teachers. **9**. (1974), 11–27.
26. *Fixed point theorems for condensing multivalued mappings on a locally convex topological space*. (with E. Tarafdar.) Bulletin of the Australian Mathematical Society. **12**. (1975), 161–170.
27. *New first-year Pure Mathematics Competition at Queensland University*. (with H. Finucan.) The Australian Mathematical Society Gazette. **4**. (1977), 21–23.
28. *On the use of differentiable homotopy in the proof of the Cauchy Theorem*. American Mathematical Monthly. **86**. (1979), 380–386.
29. *Remarks on elementary analysis*. (Swedish) Normat **29**. (1981), 72–74.
30. *Kurzweil's integral and arclength*. The Australian Mathematical Society Gazette. **8**. (1981), 19–22.
31. *Mean Value Theorems and a Taylor Theorem for Vector Valued Functions*. Bulletin of the Australian Mathematical Society. **24**. (1981), 68–77.
32. *Maximum principles for non-linear degenerate inequalities of parabolic type*. (with J. Chabrowski.) Proceedings of the Centre for Mathematical Analysis, ANU, Vol. 1, 1982. Miniconference on Partial Differential Equations, 103–104.
33. *Maximum Principle for non-linear degenerate equations of the parabolic type*. (With J. Chabrowski.) Bull. Austral. Math. Soc. **25**. (1982), 251–263.
34. *Maximum principles for the Heat Equation*. The Australian Mathematical Society Gazette. **9**. (1982), 70–79.
35. *Minimisation problems for implicit functionals defined by differential equations of liver kinetics*. (with L. Bass and A.J. Bracken.) The Journal of the Australian Mathematical Society, Series B. **25**. (1984), 538–562.
36. *Some remarks on functions with one-sided derivatives* (with A.D. Miller.) American Mathematical Monthly **93**. (1986), 471–475.
37. *Die Eulerschen Integrale*. Mathematische Semesterberichte **33**. (1986), 2, 181–183.
38. *A remark on Perron's Method in the Proof of the Peano Theorem*. Acta Mathematica Scientia **5**. (1985), 3, 349–352.
39. *Die Perronsche Methode für Lipschitz-stetige Funktionen*. Mathematische-Semesterberichte. **34**. (1987), 61–64.
40. *Differentiation of Power Series*. American Mathematical Monthly. **94**. (1987), 369–371.
41. *An inequality for the Logarithm*. (with L. Bass and V. Thomee.) Mathematics Magazine. **59**. (1986), 114.
42. *A C^∞ Nowhere Analytic Function*. Aust. Math. Soc. Gaz. **15**. (1988), 7–8.
43. *l'Hôpital Rule and One-Sided Derivatives*. (with R. Nester). Elemente der Mathematik. **44**. (1989), 116–121.
44. *First Derivative Tests for Extrema*. (with R. Nester.) International Journal of Mathematical Education in Science and Technology. **20**. (1989), 755–762.
45. *A Riemann View of the Lebesgue Integral*. (with P.S. Bullen and D.N. Sarkhel.) Southeast Asian Bulletin of Mathematics. **12**. (1988), 39–51.
46. *The Hadamard three-circles theorems for nonlinear equations*. Journal Austr.M.S. **49**. (1990), 297–302.
47. *Some Applications of a Theorem of Marcinkiewicz*. (with P.S. Bullen.) Canadian Mathematical Bulletin. **34**. (1991), 165–174.
48. *The Teaching of the Integral*. (with P.S. Bullen.) Int. J. Math. Educ. Sci. Technol., **21**. (1990) 897–911.
49. *Elementary Evaluation of the Fresnel Integrals*. Matematica Bohemica. (1991), 401–404.
50. *Power Series in a first calculus course*. Matemática Universitária. (1990) Nu12, 97–102.
51. *Operational calculus, Laplace transform or an algebraic approach*. The Australian Math. Soc. Gazette. **18**. Nu 3, (1991), 71–78.
52. *Maximum Principles, boundary point lemmas and convexity*. Mathematical Medley. **19**. Nu 1, (1991), 6–12.
53. *KH-integral and the strong Lusin condition*. With Lee Peng Yee. Boll. Unione Mat. It. **7–B**. (1993), 761–773.
54. *Some applications of Kurzweil-Henstock integration*. Matematica Bohemica. **118**. No. 4, (1993), 425–441.

55. *Arzelà's dominated convergence theorem for the Riemann integral*. With P.S. Bullen. *Boll. Unione Mat. It.* **10–A**. (1996), 347–353.
56. *Kurzweil–Henstock absolute integrable means MacShane integrable*. *Real Analysis Exchange*. **20/1**, (1994/95), 363–366.
57. *Existence of a Potential by Kurzweil–Henstock integration*. *Proceedings of the Centre for Mathematics and its Applications, The Australian National University, Vol 33, 1994. Miniconference on Analysis and Applications*. Edited by Gavin Martin and Bevin Thompson.
58. *Change of Variable in the SL-integral*. *Partial Differential Equations and Applications: Collected papers in Honor of Carlo Pucci*. Editors P. Marcellini, G. Talenti and E. Vesentini. *Lecture Notes in Pure and Applied Math.* 177, 341–346. Marcel Dekker 1996.
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60. *A change of variables theorem for the Riemann integral*. With D.N. Sarkhel. *Real Analysis Exchange* **22**. No 1. 1996–97, 390–395
61. *Substitution Theorem for Various Integrals in R_1* . *Proceedings of the Prague Mathematical Conference 1996*. 349–352. Icaris, Prague.
62. *Moments of an Increasing Function*. *The Australian Mathematical Society Gazette* **25**. Nu. 3 (1998), 142.
63. *On Moments of a Monotonic Functions*. With K.A. Landman and E.R. Love. *The Australian Mathematical Society Gazette* **26**. Nu. 1 (1999), 22–26.
64. *Integral: An Easy Approach after Kurzweil and Henstock*. With Lee Peng Yee. Cambridge University Press 2000.
65. *Remarks on rational roots of a cubic*. With W. Galwin. *Int. J. Math. Educ. Sci. Technol.* **34**. Nu 5, (2003) 765–770.
66. *Introduction to Mathematics with Maple*. With P. Adams and K. Smith. World Scientific Publishing Co. Singapore, 2004.
67. *Casus irreducibilis and Maple*. *The Australian Mathematical Society Gazette* **32**. Nu. 1 (2005), 48–50.
68. *The Weierstrass Theorem on Polynomial Approximation*. *Matematica Bohemica* **130** Nu.2, (2005) 161–166.
69. *Binomial formula and polynomial approximations* *The Australian Mathematical Society Gazette* **32**. Nu. 5 (2005), 339–341.
70. *Kurzweil's PU Integral as the Lebesgue integral*. *Matematica Bohemica*. **131**. No. 1, (2006), 11–14.
71. *Maple tools for the Kurzweil integral*. *Matematica Bohemica*. **131**. No. 4, (2006), 337–346. With P. Adams.
72. *A remark on the Definition of the Kurzweil–Henstock Integral*. *Real Analysis Exchange*. **31**. No. 2, (2005–2006), 465–468.
73. *A remarkable formula*. *The Mathematical Magazine*. **92**. No. 253 (March 2008), 94–96.

TRANSLATIONS

1. Fraser, Duncan, Collar: *Elementary Matrices*. Publishing House for Technical Literature. Prague 1958. Translation from English into Czech.
2. K. Rektorys. *Survey of Applied Mathematics*. Iliffe Books Ltd., London 1969. Translation from Czech into English.

LECTURE NOTES

1. Notes on Integration, 1972, 1–30. (Notes on Riemann Integration).
2. Operational calculus, 1975, 1–25. (On Mikusinski calculus).
3. Notes on Integration, 1977, 1–22. (Notes on Perron integration).