

## Curriculum Vitae of Russell A. Gordon

**Education** Ph.D. (Mathematics), May 1987, University of Illinois at Urbana-Champaign  
M.S. (Mathematics), May 1979, Colorado State University  
B.A. (Mathematics), May 1977, Blackburn College (Carlinville, Illinois)

**Employment** 2001-present: Professor of Mathematics, Whitman College  
1993-2001: Associate Professor of Mathematics, Whitman College  
1987-1993: Assistant Professor of Mathematics, Whitman College  
1981-1987: Graduate Teaching Assistant at University of Illinois  
1979-1981: Instructor of Mathematics, Tarkio College (Tarkio, Missouri)

**Publications** (443 citations according to MathSciNet as of December 2023)

1. Equivalence of the generalized Riemann and restricted Denjoy integrals, *Real Analysis Exchange* **12** (1986/87) 551-574.
2. The Denjoy extension of the Bochner, Pettis, and Dunford integrals, *Studia Math.* **92** (1989) 73-91.
3. Another proof of the measurability of  $\delta$  for the generalized Riemann integral, *Real Analysis Exchange* **15** (1989/90) 386-389.
4. A descriptive characterization of the generalized Riemann integral, *Real Analysis Exchange* **15** (1989/90) 397-400.
5. Another look at a convergence theorem for the Henstock integral, *Real Analysis Exchange* **15** (1989/90) 724-728.
6. The McShane integral of Banach-valued functions, *Illinois J. Math.* **34** (1990) 557-567.
7. The inversion of approximate and dyadic derivatives using an extension of the Henstock integral, *Real Analysis Exchange* **16** (1990/91) 154-168.
8. Another approach to the controlled convergence theorem, *Real Analysis Exchange* **16** (1990/91) 306-310.
9. Riemann integration in Banach spaces, *Rocky Mountain J. Math.* **21** (1991) 923-949.
10. A general convergence theorem for non-absolute integrals, *J. London Math. Soc.* (2) **44** (1991) 301-309.
11. Riemann tails and the Lebesgue and Henstock integrals, *Real Analysis Exchange* **17** (1991/92) 789-795.
12. On the equivalence of two convergence theorems for the Henstock integral, *Real Analysis Exchange* **18** (1992/93) 261-266.
13. Baire one functions and perfect sets, *Real Analysis Exchange* **18** (1992/93) 612-614.
14. *The integrals of Lebesgue, Denjoy, Perron, and Henstock*, Graduate Studies in Mathematics, Vol. 4, American Mathematical Society, Providence, 1994.
15. Some comments on an approximately continuous Khintchine integral, *Real Analysis Exchange* **20** (1994/95) 831-841.
16. An iterated limits theorem applied to the Henstock integral, *Real Analysis Exchange* **21** (1995/96) 774-781.
- 16.5 Is nonabsolute integration worth doing? (invited address at the 20th Summer Symposium Conference), *Real Analysis Exchange* **22** (1996/97) 23-33.
17. *Real analysis, a first course*, Addison-Wesley, Reading, MA., 1997.
18. Some comments on the McShane and Henstock integrals, *Real Analysis Exchange* **23** (1997/98) 329-341.

19. The use of tagged partitions in elementary real analysis, *Amer. Math. Monthly* **105** (1998) 107-117.
20. When is a limit function continuous?, *Math. Mag.* **71** (1998) 306-308.
21. A convergence theorem for the Riemann integral, *Math. Mag.* **73** (2000) 141-147.
22. Counter-intuitive aspects of plane curvature (with Colin Ferguson), *Math. Mag.* **75** (2002) 32-38.
23. One sequence, many interesting ideas in analysis (with Charles Kicey and Sudhir Goel), *Math. Mag.* **75** (2002) 57-62.
24. *Real analysis, a first course*, 2nd ed. Addison-Wesley, Reading, MA., 2002.
25. Sum rearrangements, *College Math. J.* **32** (2001) 377-380.
26. A generalization of a minimum area problem, *College Math. J.* **34** (2003) 21-23.
27. Off on a tangent (with Brian Dietel), *College Math. J.* **34** (2003) 62-63.
28. Using tangent lines to define means (with Brian Dietel), *Math. Mag.* **76** (2003) 52-61.
29. On determining the non-circularity of a plane curve (with Lane Burgette), *College Math. J.* **35** (2004) 74-83.
30. An apothem apparently appears (with Pat Cade), *College Math. J.* **36** (2005) 52-55.
31. *Calculus concentrate*, a single variable calculus textbook in use at Whitman College, 2003. (See <http://people.whitman.edu/gordon/math126.html>)
32. Extreme curvature of polynomials (with Stephanie Edwards), *Amer. Math. Monthly* **111** (2004) 890-899.
33. The aberrancy of plane curves, *Math. Gaz.* **89** (2005) 424-436.
- 33.5 The aberrancy of plane curves, *Real Analysis Exchange*, 29th Summer Symposium Conference (2005) 105-111.
34. The least squares property of the Lanczos' derivative (with N. Burch and P. Fishback) *Math. Mag.* **78** (2005) 368-378.
35. Measures of aberrancy (with Cameron Byerley), *Real Analysis Exchange* **32** (2006/07) 233-266.
36. Squaring a circular segment, *College Math. J.* **39** (2008) 212-220.
37. Some integrals involving the Cantor function, *Amer. Math. Monthly* **116** (2009) 218-227.
38. *An introduction to higher mathematics* (with Pat Keef and David Guichard), a textbook for Math 260 at Whitman College, 2009. (See <http://people.whitman.edu/gordon/math260.html>)
39. Peano differentiation via integration, *Real Analysis Exchange* **34** (2009) 147-156.
40. A least squares approach to differentiation, *Real Analysis Exchange* **35** (2010) 205-228.
41. Least squares and approximate differentiation, *Real Analysis Exchange* **37** (2011/12) 189-201.
42. On the perimeter of integral triangles (with Jonathan Wells), *Int. J. Pure Appl. Math.* **64** (2010) 541-565.
43. Properties of Eisenstein triples, *Math. Mag.* **85** (2012) 12-25.
44. Semiperimeter and Pythagorean triples, *Amer. Math. Monthly* **118** (2011) 680-692.
45. Splitting a triangle, *Math. Gaz.* **97** (2013) 474-493.
46. Trisecting angles in Pythagorean triangles (with Wen D. Chang), *Amer. Math. Monthly* **121** (2014) 625-631.
47. Integer-sided triangles with trisectible angles, *Math. Mag.* **87** (2014) 198-211.
48. Lebesgue's primitive proof, submitted but "scooped" by another author.

49. Some comments on proofs that there are no four squares in arithmetic progression (with Sara Graham), *The Fibonacci Quarterly* **53** (2015) 68–73.
50. A bounded derivative that is not Riemann integrable, *Math. Mag.* **89** (2016) 364–370.
51. An interesting construction problem (with José Santos), *Amer. Math. Monthly* **125** (2018) 207–221.
52. Variations on a theme, *Math. Gaz.* **103** (2019) 306–312.
53. Rational arc length, *Math. Gaz.* **102** (2018) 210–225.
54. Exploring the evolutes of cubic polynomials, *Math. Mag.* **93** (2020) 121–131.
55. Comments on “Subsums of the Harmonic Series”, *Amer. Math. Monthly* **126** (2019) 275–279.
56. Geometric problems leading to power means, *Math. Gaz.* **103** (2019) 318–323.
57. Solution to Monthly problem 11999: A Variation on Euler’s Formula for Pi, *Amer. Math. Monthly* **126** (2019) 471–472.
58. The convexity of the function  $y = E(x)$  defined by  $x^y = y^x$  (with A. Beardon), *Math. Gaz.* **104** (2020) 36–43.
59. Elementary methods for finding the sums of a family of series, *Math. Mag.* **96** (2023) 20–29.
60. Solution to Mathematics Magazine problem 2095: A floor function sum, *Math. Mag.* **94** (2021) 156–157.
61. Integrating the tails of two Maclaurin series, *J. Class. Anal.* **18** (2021) 83–95.
62. Integrating sine and cosine Maclaurin remainders, *Math. Gaz.* **107** (2023) 96–102.
63. Evaluating improper integrals using Laplace transforms (with Seán Stewart), *Real Analysis Exchange* **48** (2023) 201–221.
64. A novel approach to evaluating improper integrals (with Seán Stewart), *Sci. Ser. A Math. Sci. (N.S.)* **33** (2023) 73–88.
65. On some improper integrals involving the cube of the tails of two Maclaurin series (with Seán Stewart), accepted by *J. Class. Anal.*, Dec. 2023.
66. Lucas type sequences and sums of binomial coefficients, *Integers* **23** (2023), Paper No. A84, 23 pp.
67. Inverse tangent series via telescoping sums, to appear in *Math. Gaz.* November 2024.
68. Lucas numbers and sums of binomial coefficients, submitted to *College Math. J.*
69. Evaluating some improper sine and cosine integrals, submitted to *J. Class. Anal.*, November 2023.

**Talks** (26 at various meetings)

1. Differentiation in Banach spaces, AMS Meeting #833 (Kent, Ohio), April 1987.
2. The Denjoy extension of the Bochner, Pettis, and Dunford integrals, AMS Meeting #839 (Atlanta), January 1988.
3. Convergence theorems for the Henstock integral, Fourteenth Summer Symposium in Real Analysis (California State University, San Bernardino), June 1990.
4. Integration and  $\mathcal{P}$ -Cauchy sequences, AMS Meeting #871 (Baltimore), January 1992.
5. McShane integration and strong differentiation, AMS Meeting #878 (San Antonio), January 1993.
6. Baire one functions and perfect sets, American Mathematical Society Meeting #883 (Vancouver, British Columbia), August 1993.
7. On several approximately continuous integrals, American Mathematical Society Meeting #897 (San Francisco, California), January 1995.
8. Integration and antidifferentiation, Pacific Northwest Section of the Mathematical Association of America, Whitman College, June 1995.
9. Is nonabsolute integration worth doing?, Twentieth Summer Symposium in Real Analysis (University of Windsor, Ontario), June 1996.
10. R.A.I.N. Gauges, Twenty-First Summer Symposium in Real Analysis (University of Tennessee, Chattanooga), June 1997.
11. Inherited Integrability Illustrations, Pacific Northwest Section of the Mathematical Association of America, Washington State University, June 1998.
12. The bounded convergence theorem for the Riemann integral, Twenty-Second Summer Symposium in Real Analysis (University of California, Santa Barbara), June 1998.
13. Summing a certain class of power series, Pacific Northwest Section of the Mathematical Association of America, University of British Columbia, June 2000.
14. An interesting sequence, Pacific Northwest Section of the Mathematical Association of America, Seattle Pacific University, April 2001.
15. Plane curvature is not so plain, Twenty-Fifth Summer Symposium in Real Analysis (Weber State University, Ogden, UT), May 2001.
16. One inequality, two means, and  $n$  applications, an hour long presentation for Math Awareness Week at Columbia Basin College, April 2003
17. Extreme curvature, Pacific Northwest Section of the Mathematical Association of America, Whitman College, June 2003.
18. The aberrancy of plane curves, Twenty-Ninth Summer Symposium in Real Analysis (Whitman College), June 2005.
19. A least squares approach to differentiation, Thirtieth Summer Symposium in Real Analysis (UNC Asheville), June 2006.
20. A quadratic approach to a circular area, Pacific Northwest Section of the Mathematical Association of America, Linfield College, April 2007.
21. Integrals of functions composed with the Cantor function, Pacific Northwest Section of the Mathematical Association of America, Carroll College, June 2008.
22. Integer-sided triangles with trisectible angles, MAA Mathfest, Portland, Oregon, August 2014.
23. A bounded derivative that is not Riemann integrable, Joint Mathematics Meetings (Seattle, Washington), January 2016.
24. An interesting construction problem, Forty-First Summer Symposium in Real Analysis (College of Wooster), June 2017.
25. A simple construction problem, Joint Mathematics Meetings (San Diego, CA), January 2018.
26. Properties of the curve  $x^y = y^x$ , Forty-Third Summer Symposium in Real Analysis (Trinity College), June 2019.

**Miscellaneous** Referee for various journals, a total of 134 papers since 1987.

Reviewer for Math Reviews (see <http://www.ams.org/mathscinet/>), writing 42 reviews thus far.

Served as chair of the mathematics and statistics department from July 2018 to July 2021.

Participated in a working group pondering assessments and evaluation practices during the Spring 2019 semester.

Part of the committee to help select a student for the Beinecke scholarship: 2005 to present.

Member of the Faculty Personnel Committee 2013-2016, reviewing faculty members for contract renewal, tenure, and promotion to full professor, and discussing policy issues.

Received a Perry grant for summer research (2010) with a student (Jonathan Wells) to study the perimeter of integral triangles (item 42 above).

Selected to be a part of a team of Washington educators that helped to rewrite the K-12 mathematics standards, October 2007 through May 2008.

Hosted (at Whitman College) the Twenty-Ninth Summer Symposium in Real Analysis, June 2005.

Received a Perry grant for summer research (2004) with a student (Cameron Byerley) on various measures of aberrancy (item 35 above).

Received a Rall grant for summer work (2003) with a student (Pat Cade) on a calculus text (item 31 above) and some research related to calculus (item 30 above).

Received a Rall grant for summer research (2002) with a student (Lane Burgette) to work on the aberrancy of plane curves (item 29 above).

Received the G. Thomas Edwards Award for Excellence in Teaching and Scholarship at the 2002 Whitman College Commencement.

Received a Perry grant for summer research (2001) with a student (Brian Dietel) on some research related to calculus (items 27 and 28 above).

Received a Perry grant for summer work (2000) with a student (Derek Garton) on the second edition of my undergraduate analysis text (item 24 above).

Received a Rall grant for summer research (1999) with a student (Colin Ferguson) to work on curvature of plane curves (item 22 above).

Served as chair of the mathematics department from July 1994 to July 1997; in addition to the usual duties of budgets and schedules, I wrote much of the report for our department for the accreditation review process and was in charge of a tenure-track search.

Member of Council on Student Affairs (early 1990's), including hearings for several date rape cases.

Grant from the Pew Science Foundation to develop course materials in mathematical modeling (with R. Fontenot and D. Guichard), summer 1989.