

## CURRICULUM VITAE

### LAWRENCE H. RIDDLE

- Address** Department of Mathematics  
Agnes Scott College  
Decatur, GA 30030  
Email: lriddle@agnesscott.edu
- Education** B.S., Carnegie-Mellon University, 1976  
Mathematical Tripos, Part III, Cambridge University, 1976–1977  
M.S. (Statistics), University of Illinois, 1981  
Ph.D. (Mathematics), University of Illinois, 1982
- Employment** 2019–, Professor Emeritus, Agnes Scott College  
1999–2019, Professor, Agnes Scott College  
1992–1999, Associate Professor, Agnes Scott College  
1989–1992, Assistant Professor, Agnes Scott College  
1982–1989, Assistant Professor, Emory University
- Honors/Awards** Winston Churchill Scholarship, Cambridge University, 1976–1977  
Mathematics Instructional Award, University of Illinois, 1981  
Finalist, Campus Award for Excellence in Undergraduate Teaching, Univ. of Illinois, 1982  
Lilly Post-Doctoral Teaching Award, Emory University, 1985  
Vulcan Materials Company Award for Excellence in Teaching, Agnes Scott College, 2003  
Joseph Gladden Public Lecture Award, Agnes Scott College, 2007
- Publications**
1. Weak Radon-Nikodym sets in conjugate Banach spaces, *Measure Theory and Applications*, G.A. Goldin and R.F. Wheeler, eds., Dekalb, Illinois, 1981.
  2. Martingales and the fine line between Asplund spaces and spaces not containing a copy of  $l_1$  (with J. J. Uhl, Jr.), *Martingale Theory in Harmonic Analysis and Banach Spaces*, Lecture Notes in Mathematics, Springer-Verlag, Berlin, **939** (1981), 145-156.
  3. The geometry of weak Radon-Nikodym sets in dual Banach spaces, *Proc. Amer. Math. Soc.* **86** (1982), 433-438.
  4. Sets with the weak Radon-Nikodym property (with E. Saab and J. J. Uhl, Jr.), *Indiana U. Math. J.* **32** (1983), 527-542.
  5. Dunford-Pettis operators and weak Radon-Nikodym sets, *Proc. Amer. Math. Soc.* **91** (1984), 254-256.
  6. On universally Pettis integrable functions (with E. Saab), *Illinois J. Math.* **29** (1985), 509-531.
  7. Probability models for tennis scoring systems, *J. Royal Statistical Soc, Series C (Applied Statistics)* **37** (1988), 63-75.

8. An application of Edgar's Banach space ordering, *Analysis at Urbana II*, London Math. Soc. Lecture Note Series **138** (1989), 275-293.
9. Nearly representable operators (with R. Kaufman, M. Petrakis and J. J. Uhl, Jr.), *Trans. Amer. Math. Soc.* **312** (1989), 315-333.
10. Rearrangements of the alternating harmonic series, *Kenyon Mathematics Quarterly* **1**, no. 2 (1990), 6-21.
11. Iterating linear functions graphically—a precursor to the derivative in precalculus, Proceedings of the 3rd International Conference on Technology in Collegiate Mathematics, Ohio State University, 1990.
12. An occurrence of the ballot numbers in operator theory, *Amer. Math. Monthly*, **98** (1991), 613-617.
13. Plot, *The Notices of the American Mathematical Society* **38** (1991), 1138-1140.
14. A Precalculus Crossmath Puzzle, *Mathematics Teacher*, October 1992, 540.
15. PSMathGraphsII (with Tom Scavo), *The Notices of the American Mathematical Society*, (1992), 332-334.
16. Population Models with Mutualism (with Francis Hannick, Andris Niedra, Lynn Olson, Leonard Putnick, Carl Schoen, and Willis Tebbs), FAIM Module, COMAP, October, 1993.
17. GyroGraphics, version 4, *The Notices of the American Mathematical Society* **40** (1993), 332-334.
18. Motivating the Derivative through the Iteration of Linear Functions, *Mathematics Teacher*, **87** (1994), 377-381.
19. TEMath: Tools for Exploring Mathematics, *The Notices of the American Mathematical Society* **41** (1994), 931-933.
20. More reflections on inflections, *The Mathematics Teacher*, **87**, No. 6 (Sept. 1994), 478-479.
21. Personalized Computer Investigations in Multivariable Calculus, *College Mathematics Journal*, **26**, No. 3 (1995), 235-237.
22. Symbolic and Graphical Investigations of Riemann Sums with a Computer Algebra System, *PRIMUS*, **VI**, No. 4 (1996), 366-380.
23. Linear Algebra Projects, *ATLAST Computer Exercises for Linear Algebra*, edited by Steven Leon, Eugene Herman, and Richard Faulkenberry, Prentice Hall, 1996, p.27-29 (Symmetric and Skew-Symmetric Matrices) and p.168-174 (The SVD and Digital Image Processing).
24. Arc length Contest, *College Mathematics Journal*, **29** No. 4 (September 1998), 1001-1006.
25. Carl Louis Ferdinand von Lindemann 1852-1939, in *Notable Mathematicians From Ancient Times to the Present*, Robyn Young, Editor, Gale Research, 1998, 316-317.
26. Biographies of Women Mathematicians, web site, ongoing since 1995  
<https://www.agnesscott.edu/lriddle/women/women.htm>
27. Classic Iterated Function Systems, web site, ongoing since 1998  
<http://larryriddle.agnesscott.org/ifs/ifs.html>
28. Sophie Germain and Fermat's Last Theorem, web site, 1998  
<https://www.agnesscott.edu/lriddle/women/germain-FLT/SGandFLT.htm>
29. Women in Mathematics, AP Central website (College Board), March 2001  
<http://apcentral.collegeboard.com/apc/members/features/9371.html>

30. Using the Fundamental Theorem of Calculus in a Variety of AP Questions, in *AP Calculus Special Focus Materials for Professional Development: The Fundamental Theorem of Calculus*, The College Board, 2005, 78-98.
31. AP Questions involving Approximations, in *AP Calculus Special Focus Materials for Professional Development: Approximations*, The College Board, 2007
32. The Domain for Solutions to Differential Equations, AP Central website (College Board), October 2007,  
[http://apcentral.collegeboard.com/apc/members/repository/ap07\\_calculus\\_DE\\_domain\\_fin.pdf](http://apcentral.collegeboard.com/apc/members/repository/ap07_calculus_DE_domain_fin.pdf)
33. Approximating the Sum of Convergent Series, in *AP Calculus Special Focus Materials for Professional Development: Infinite Series*, The College Board, 2008, 93-102.
34. A Calculus Student Reads the Newspaper, AP Central website (College Board), July 2008  
[http://apcentral.collegeboard.com/apc/public/repository/ap08\\_CalculusStudentNewspaper.pdf](http://apcentral.collegeboard.com/apc/public/repository/ap08_CalculusStudentNewspaper.pdf)
35. The Shape of a Symmetric Binary Tree, website, 2014  
<http://larryriddle.agnesscott.org/ifs/pythagorean/symbinarytreeShape.htm>
36. [Creating Symmetric Fractals](#), *Math Horizons*, Vol. 24, No. 2 (November 2016), 18-21 (Artwork also used on the cover)  
<http://www.maa.org/press/periodicals/math-horizons/math-horizons-contents-november-2016>. Reprinted in *The Best Writings on Mathematics 2017*, Mircea Pitici, Editor, Princeton University Press.

## Software

- IFS Construction Kit, Windows software for drawing iterated function systems  
<https://larryriddle.agnesscott.org/ifskit/index.htm>, ongoing since April 2004
- ColabTurtlePlus, An HTML based Turtle implementation with classes for Google Colab and Jupyter Labs, 2021  
<https://pypi.org/project/ColabTurtlePlus/>

## Mathematical Art Exhibits

1. "Sierpinski Theme and Variations," 12.5" x 12.5" counted cross stitch embroidery, exhibited at the 2011 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2011, New Orleans, LA. Selected for the 2012 Calendar of Mathematical Imagery (November) from the American Mathematical Society.  
<https://gallery.bridgesmathart.org/exhibitions/2011-joint-mathematics-meetings/mathriddle>
2. "Pythagorean Tree," 16" x 20" digital print, exhibited at the 2012 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2012, Boston, MA. Selected for the 2014 Calendar of Mathematical Imagery (May) from the American Mathematical Society.  
<https://gallery.bridgesmathart.org/exhibitions/2012-joint-mathematics-meetings/mathriddle>
3. Showing, Thinking 2013 Exhibition. Dalton Gallery, Agnes Scott College, February 8-March 8, 2013.
4. "Space Filling Curve," 12.5" x 12.5" back stitch embroidery, exhibited at the 2015 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2015, San Antonio, TX.  
<https://gallery.bridgesmathart.org/exhibitions/2015-joint-mathematics-meetings/mathriddle>

5. “Constellations, Fractals, and Antique Glassware: Exploring Patterns in Science and Math,” Atlanta Science Festival, Agnes Scott College, March 23-March 27, 2015.
6. “Levy Dragon Inside Tapestry” and “Levy Dragon Outside Tapestry”, 12.5” x 12.5” back stitch embroidery, exhibited at the 2016 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2016, Seattle, WA.  
<https://gallery.bridgesmathart.org/exhibitions/2016-joint-mathematicsmeetings/mathriddle>
7. “Heighway Dragon Tiling” and “Twindragon Tiling”, 10” x 10” cross-stitch embroidery, exhibited at the 2017 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2017, Atlanta, WA.  
<https://gallery.bridgesmathart.org/exhibitions/2017-joint-mathematics-meetings/mathriddle>
8. “Dragon Curve Lace” and “Pythagorean Tree”, 11” x 14” back-stitch embroidery, exhibited at the 2019 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2019, Baltimore, MD.  
<https://gallery.bridgesmathart.org/exhibitions/2019-joint-mathematics-meetings/mathriddle>
9. “Right Triangle Divided by Nine”, 20” x 16” counted cross-stitch embroidery, exhibited at the 2021 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2021, Virtual.  
<https://gallery.bridgesmathart.org/exhibitions/2021-joint-mathematics-meetings/mathriddle>
10. “Tilings of Sierpinski Relative Fractals”, 12.5” x 12.5” counted cross-stitch embroidery, exhibited at the Juried Exhibit accompanying the 2023 AMS Special Session on Mathematics and Fiber Arts at the 2023 Joint Mathematics Meeting, January 2023, Boston, MA.  
<http://www.toroidalsnark.net/mkss4-pix/larry-riddle.html>
11. “Sierpinski Relative Friezes”, 16” x 12” counted cross-stitch embroidery, exhibited at the 2024 Joint Mathematics Meeting Exhibition of Mathematical Art, January 2024, San Francisco, CA.  
<https://gallery.bridgesmathart.org/exhibitions/2024-joint-mathematics-meetings/larry-riddle>

**Professional Activities**

- Chair, Advanced Placement Calculus Development Committee, College Board, 2005-2007
- Chief Reader, Advanced Placement Calculus Exam, Educational Testing Service, 1999–2003
- Reader, Table Leader, Exam Leader, Chief Reader Designate, Advanced Placement Calculus Exam, Educational Testing Service, 1984–1999, 2005–2007
- Member, Mathematics Major Field Test Development Committee, Educational Testing Service, 2011-2012
- Member, Review Committee for the Mathematics SAT Exam, Educational Testing Service, 1990–1999
- Member, Beckenbach Book Prize Committee, Mathematical Association of America, 2002–2005; Committee Chair for 2004-2005
- Member, Site Selection Committee, Southeastern Section of the Mathematical Association of America, 1992–1995; Committee Chair for 1994–1995.

**College Service**    Committee on Academic Computing and Technical Support, 1989–1991  
Focus Group leader, 1990–1991  
Student Adviser, 1990–present  
Task Force on Quality of Student Life, 1991  
College Events Committee, 1991–1992  
Advisory Committee on Academic Computing & Technical Support, 1991–1993  
Faculty Teller, 1991–1993  
Professional Development Committee, Chair, 1991–1994  
ITEP Oversight Committee, 1992–1993  
Chair, Department of Mathematics, 1992–1997, 2000–2001, spring 2002,  
2006–2012  
Faculty Athletic Representative to the NCAA, 1993–1997, 1999–2009  
Acting Chair, Department of Physics and Astronomy, Fall 1994  
Faculty Advocate for Computing, 1995, 1999–2000, 2001–2002  
Academic Computing Advisory Group, 1995–1997, 1998–2005  
Faculty Executive Committee, 1996–1999  
Alternate, Grievance Committee, 1999–2002  
Academic Standards and Admission Committee, 2000–2003; Chair, 2001–2002  
Committee on Committees, 2003–2005  
Athletic Advisory Board, 2001–2009  
College Marshall, 2004–2005, 2013–2016  
Board of Trustees Faculty Associate, Fall 2004, 2015–2016  
Reappointment, Promotion, and Tenure Committee, 2006–2009;  
Co-Chair 2007–2008, Chair 2008–2009  
Institutional Review Board, Chair 2009–2012  
Adviser for the Dual-Degree Computer Science program with Emory University,  
2011–2013  
Academic Support Committee 2013-2016; Chair, Spring 2014, Fall 2015  
Curriculum Committee, Fall 2018