

# Bruce M. Landman

## Curriculum Vitae

College of Science and Mathematics  
University of West Georgia  
Carrollton, Georgia 30118  
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### Education

Ph.D. Mathematics, Virginia Tech, 1983

M.A. Mathematics, State University of New York at Binghamton

B.A. Mathematics, Queens College of the City University of New York

### Employment

Interim and Founding Dean, College of Science and Mathematics, University of West Georgia, January, 2011-present

Professor and Chair, Department of Mathematics, University of West Georgia, 2001-December, 2010

Professor of Mathematics, University of North Carolina at Greensboro, 2000-01

Associate Professor of Mathematics, University of North Carolina at Greensboro, 1992-2000

Assistant Professor of Mathematics, University of North Carolina at Greensboro, 1988-92

Assistant Professor of Mathematics, Hofstra University, 1984-88

Visiting Assistant Professor of Mathematics, Virginia Tech, 1983-84

### Journal Management

- Founder and Managing Editor of the International Research Journal *Integers*, 1998-present.

### Books

1. *Combinatorial Number Theory: Proceedings of Integers Conference 2007*, Editor (with M. Nathanson, J. Nešetřil, R. Nowakowski, C. Pomerance, A. Robertson), de Gruyter, Berlin, 2009.

2. *Combinatorial Number Theory: In Celebration of the 70th Birthday of Ron Graham*, Editor (with M. Nathanson, J. Nešetřil, R. Nowakowski, C. Pomerance), de Gruyter, Berlin, 2007.
3. *Topics in Combinatorial Number Theory*, Editor (with M. Nathanson, J. Nešetřil, C. Pomerance), DIMATIA, Prague, 2005.
4. *Ramsey Theory on the Integers* (with A. Robertson), American Mathematical Society, Providence, Rhode Island, 2004.

## Refereed Research Articles

1. P. Allen, B. Landman, H. Meeks, New bounds on van der Waerden-type numbers for generalized 3-term arithmetic progressions, submitted.
2. B. Landman and J. Perconti, On Ramsey numbers for sets free of prescribed differences, *J. Combin. Math. Combin. Computing* **76** (2011), 11-20.
3. B. Landman and K. Ventullo, Avoiding monochromatic sequences with gaps in a fixed translation of the primes, *Utilitas Math.* **82** (2010), 207-214.
4. H. Ardal, D. Gunderson, V. Jungić, B. Landman, K. Williamson, Ramsey results involving the Fibonacci numbers, *Fibonacci Quart.* **46/47** (2008/2009), 10-17.
5. T.C. Brown, B. Landman, and A. Robertson, Bounds on van der Waerden numbers and some related functions, *J. Combinatorial Number Theory (Series A)* **115** (2008), 1304-1309.
6. B. Landman, and A. Robertson, Avoiding monochromatic sequences with special gaps, *SIAM J. Discrete Math.* **21** (2007), 794-801.
7. A. Khodkar and B. Landman, Recent progress in Ramsey theory on the integers, in *Combinatorial Number Theory*, de Gruyter, Berlin, 2007, 305-313.
8. N. Frantzikinakis, B. Landman, and A. Robertson, On the degree of regularity of generalized van der Waerden triples, *Advances Applied Math.* **37** (2006), 124-128.
9. C. Culver, B. Landman, and A. Robertson, Some new exact van der Waerden numbers, *Integers: Electronic J. Comb. Number Theory* **5(2)** (2005).
10. B. Landman and A. Robertson, Generalized van der Waerden triples, *Discrete Math.* **256** (2002), 279-290.
11. J.K. Kim and B. Landman, On the number of multiplicative partitions of a multi-partite number, *J. Comb. Math. Comb. Comp.*, **37** (2001), 159-171.

12. B. Landman, On avoiding arithmetic progressions whose common differences belong to a given small set, *J. Comb. Math. Comb. Comp.* **30** (1999), 221-229.
13. T.C. Brown, R.L. Graham, B. Landman, On the set of common differences in van der Waerden's theorem on arithmetic progressions, *Canadian Math. Bull.* **42** (1999), 25-36.
14. T.C. Brown and B. Landman, Monochromatic arithmetic progressions with large differences, *Bull. Australian Math. Soc.* **60** (1999), 21-35.
15. B. Landman, On some generalizations of the van der Waerden number  $w(3)$ , *Discrete Math.* **207** (1999), 137-147.
16. B. Landman, Ramsey functions for quasi-progressions, *Graphs and Combinatorics* **14** (1998), 131-142.
17. B. Landman, Monochromatic sequences whose gaps belong to  $\{d, 2d, \dots, md\}$ , *Bull. Australian Math. Soc.* **58** (1998), 93-101.
18. T.C. Brown, B. Landman, M. Mishna, Monochromatic homothetic copies of  $\{1, 1+s, 1+s+t\}$ , *Canadian Math. Bull.* **40** (1997), 149-157.
19. B. Landman and B. Wysocka, Collections of sequences having the Ramsey property only for few colors, *Bull. Australian Math. Soc.* **55** (1997), 19-28.
20. B. Landman, Avoiding arithmetic progressions (mod  $m$ ) and arithmetic progressions, *Utilitas Math.* **52** (1997), 173-182.
21. T.C. Brown and B. Landman, The Ramsey property for collections of sequences not containing all arithmetic progressions, *Graphs and Combinatorics* **12** (1996), 149-161.
22. B. Landman, Ramsey functions associated with second-order recurrences, *J. Comb. Math. Comb. Comp.* **15** (1994), 119-128.
23. B. Landman and A.F. Long, Ramsey functions for sequences with adjacent differences in a specified congruence class, *Congressus Numer.* **103** (1994), 3-20.
24. B. Landman, An upper bound for van der Waerden-like numbers using  $k$  colors, *Graphs and Combinatorics* **9** (1993), 177-184.
25. T.P. Vaughan, B. Landman, F. Portier, Concavity properties of numbers satisfying the binomial recurrence, *J. Comb. Math. Comb. Comp.* **12** (1992), 23-32.
26. B. Landman, E.A. Brown, F. Portier, Partitions of bipartite numbers into at most  $j$  parts, *Graphs and Combinatorics* **8** (1992), 65-73.
27. B. Landman, Ramsey functions related to the van der Waerden numbers, *Discrete Math.* **102** (1992), 265-278.

28. B. Landman and R.N. Greenwell, Multiplicative partitions of bipartite numbers, *Fibonacci Quart.* **29** (1991), 264-267.
29. B. Landman and R.N. Greenwell, Some new values and bounds for van der Waerden-like numbers, *Graphs and Combinatorics* **6** (1990), 287-291.
30. B. Landman, F. Portier, T.P. Vaughan, Concavity properties of numbers of solutions of Diophantine equations, *J. Comb. Math. Comb. Comp.* **8** (1990), 39-49.
31. B. Landman and R.N. Greenwell, Accurate bounds for new van der Waerden type numbers, *J. Comb. Math. Comb. Comp.* **8** (1990), 103-106.
32. R.N. Greenwell and B. Landman, On the existence of a reasonable upper bound for the van der Waerden numbers, *J. Comb. Theory (A)* **50** (1989), 82-86.
33. B. Landman and R.N. Greenwell, Values and bounds for Ramsey numbers associated with polynomial iteration, *Discrete Math.* **68** (1988), 77-83.
34. B. Landman, Generalized van der Waerden numbers, *Graphs and Combinatorics* **2** (1986), 351-356.
35. J.W. Layman and B. Landman, Note on the local growth of iterated polynomials, *Aequationes Math.* **27** (1984), 150-156.

## Selected Presentations

1. Special Session (Applied Combinatorics) of the American Mathematical Association Society Meeting, Statesboro, Georgia, 2011.
2. Integers Conference 2009, Carrollton, Georgia, 2009.
3. Meeting on Ethics in the Mathematical Sciences, Invited Colloquium speaker, East Tennessee State University, Johnson City, Tennessee, 2007.
4. Integers Conference 2005, Carrollton, Georgia, 2005.
5. Sixteenth Annual Cumberland Conference, Atlanta, Georgia, 2003.
6. Integers Conference 2003, Carrollton, Georgia, 2003.
7. Seventeenth Clemson Mini-conference on Combinatorial Optimization, 2002.
8. Illinois State University, Normal, Illinois, Invited colloquium speaker, 2001.
9. East Carolina University, Greenville, North Carolina, Invited colloquium speaker, 2001.
10. Eastern Kentucky University, Richmond, Kentucky, Invited colloquium speaker, 2000.

11. Fourth North Carolina Mini-Conference on Combinatorics and Graph Theory, Greensboro, North Carolina, 2000.
12. Third North Carolina Mini-Conference on Combinatorics and Graph Theory, Greensboro, North Carolina, 1999.
13. Southeastern Regional Meeting on Numbers, Greensboro, North Carolina, 1998.
14. Eleventh Annual Cumberland Conference, Johnson City, Tennessee, 1998.
15. Special Session (Combinatorics and Graph Theory) of the American Mathematical Society Meeting, Winston-Salem, North Carolina, 1998. Abstract in *Abstracts of Papers Presented to the American Mathematical Society* **19**.
16. Guilford College, Greensboro, North Carolina, Invited colloquium speaker, 1998.
17. Tenth Annual Cumberland Conference, Atlanta, Georgia, 1997.
18. Second North Carolina Mini-Conference on Combinatorics and Graph Theory, Greensboro, North Carolina, 1997.
19. Southeastern Regional Meeting on Numbers, Winston-Salem, North Carolina, 1996.
20. First North Carolina Mini-Conference on Combinatorics and Graph Theory, Greensboro, North Carolina, 1996.
21. Special Session (Ramsey Theory) of the American Mathematical Society Annual Summer Meeting, Burlington, Vermont, 1995. Abstract in *Abstracts of Papers Presented to the American Mathematical Society* **16**.
22. Twenty Fifth Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, Florida, 1994.
23. Student Chapter of the Mathematical Association of America, Greensboro, North Carolina, Invited speaker, 1993.
24. Twenty Third Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, Florida, 1992.
25. Virginia Wesleyan College, Invited colloquium speaker, 1991.
26. National Meeting of the American Mathematical Society, Louisville, Kentucky, 1990. Abstracts (two) in *Abstracts of Papers Presented to the American Mathematical Society* **11**, 1990.
27. Mathematical Association of America Southeastern Regional Meeting, Davidson, North Carolina, 1990.

28. Southeastern Regional Meeting on Numbers, University of North Carolina at Greensboro, 1989.
29. National Meeting of the American Mathematical Society, Atlanta, Georgia, 1988. Abstract in *Abstracts of Papers Presented to the American Mathematical Society* **9**, 1988.
30. University of North Carolina at Charlotte, Invited colloquium speaker, 1988.
31. National Meeting of the American Mathematical Society, San Antonio, Texas, 1987. Abstract in *Abstracts of Papers Presented to the American Mathematical Society* **8**, 1987.
32. Georgia State University, Invited colloquium speaker, 1987.
33. Southeastern Sectional Meeting of the American Mathematical Society, Charlotte, North Carolina, 1986. Abstract in *Abstracts of Papers Presented to the American Mathematical Society* **7**, 1986.
34. James Madison University, Invited colloquium speaker, 1984.
35. Mary Washington College, Invited colloquium speaker, 1984.

## Funded Grants

- Number Theory Foundation Conference Support Grant, “Integers Conference 2011,” (PI), 2011, \$3000
- E-Tuition Online Course Development Initiative and Support Grant, University of West Georgia, 2010, \$7,649
- National Science Foundation Research Experiences for Undergraduates (REU) Grant, “Problems in Combinatorics and Graph Theory,” (PI), 2007-2010, \$216,422
- National Science Foundation Conferences in the Mathematical Sciences Grant “Integers Conference 2009,” (PI), 2009, \$17,900
- National Science Foundation Conferences in the Mathematical Sciences Grant “Integers Conference 2007,” (PI), 2007, \$17,208
- National Science Foundation Conferences in the Mathematical Sciences Grant “Integers Conference 2005,” (PI), 2005, \$6000
- Number Theory Foundation Conference Support Grant, “Integers Conference 2005,” 2005, \$1500
- University System of Georgia Eminent Scholar Matching Fund, awarded to Department of Mathematics (Co-author), 2002, \$500,000

- Equipment Grant (with F. Sadri, J. Wang, S. Lea, K. Sivalingam), University of North Carolina at Greensboro, 1996, \$12,000
- Research Council of the University of North Carolina at Greensboro, Summer Excellence Research Award, 1991, \$4000
- Research Council of the University of North Carolina at Greensboro, Summer Excellence Research Award, 1989, \$4000

## Other Scholarly Awards and Accomplishments

- Research cited in over seventy articles and books
- Awarded research sabbatical, Fall Semester, 2008, University of West Georgia
- Winner, Centennial Faculty Award for the Sciences, University of West Georgia, 2007
- Graduate Faculty Research Award (one of two awarded within College of Arts and Sciences), University of West Georgia, 2003
- Contributor to *Calculus, Seventh Edition* by Howard Anton, Wiley, 2001
- Merit Awards for Research, College of Arts and Sciences, University of North Carolina at Greensboro, 1992, 1998, 1999
- Awarded paid research leave, Fall Semester, 1997, University of North Carolina at Greensboro
- “Quadratic Polynomial Iteration,” Problem 1203, *Mathematics Magazine* **57**, 298 (1984); **58**, 301-302 (1985) (with B. Klein and J.W. Layman)

## Leadership Workshops

- National Academies Workshop, “Partnerships for Emerging Research Institutions,” Washington, D.C., September 13, 2007
- Mathematical Association of America PREP workshop “Leading the Academic Department,” Reston, Virginia, June 19-22, 2003
- American Council on Education workshop “Chairing the Academic Department,” San Antonio, Texas, November 7-10, 2001

## Courses Taught

Undergraduate Courses:

- Algebra and Trigonometry
- Pre-calculus
- Elementary Statistics
- Finite Mathematics (freshman level)
- Mathematics as a Liberal Art
- Elementary Set Theory, Logic, and Probability (freshman level)
- Business Calculus
- Calculus I,II,III,IV
- Honors Calculus
- Sophomore Seminar
- Introduction to Proofs and Mathematical Structures (junior level)
- Discrete Mathematics I (sophomore level)
- Discrete Mathematics II (junior level)
- Matrix Theory (junior level)
- Linear Algebra with Applications (junior level)
- Elementary Differential Equations (junior level)
- Applied Finite Mathematics (junior level)
- Advanced Calculus (junior level)
- Modern Algebra (junior level)
- Theory of Numbers (senior level)
- Set Theory (senior level)
- Theory of Groups (senior level)
- Combinatorial Analysis (senior level)
- Introductory Graph Theory (senior level)

- Number Theory II (senior level)

#### Graduate Courses:

- Combinatorics
- Graph Theory
- Number Theory
- Abstract Algebra
- Set Theory
- Combinatorial Number Theory

### **Graduate Thesis Direction**

- External Examiner, Ph.D. Thesis: H. Ardal, 2008-09, Department of Mathematics, Simon Fraser University
- External Examiner, Masters Thesis: Karen Johannson, 2006-07, Department of Mathematics, University of Manitoba
- External Examiner, Ph.D. Thesis: V. Jungic, 1998-99, Department of Mathematics, Simon Fraser University
- Master's Thesis Advisor, Kathryn Benjamin, Hofstra University, 1988-89
- Member, Master's Thesis Committees: S. Chen, UNC-Greensboro, 1989; K. Griffin, UNC-Greensboro, 1992; F.D. Gaddis, UNC-Greensboro, 1995; B. Jobe, UNC-Greensboro, 1995; T. Howell, UNC-Greensboro, 1998; S.W. Adkins, UNC-Greensboro, 1999

### **Undergraduate Research Supervision and Mentoring**

- Co-authored refereed research papers with the following undergraduate students: C. Culver, J. Perconti, K. Ventullo, K. Williamson
- Research mentor for twenty-four students over course of three 8-week summer REU programs, 2007-09
- Undergraduate Research Supervisor for C. Culver, 2003-04, L. McMichem, 2004-05, and H. Meeks, 2009-10, University of West Georgia
- Mentor for several students in the North Carolina Teaching Fellows program, 2000-01
- Advisor for all Honors students in the Department of Mathematical Sciences, 1997-2000

- Undergraduate Honors Thesis Advisor, A.F. Inman, UNC-Greensboro, 1992-93

## Other Instructional and Curricular Activities

- Participated in 8-week Online Course Development Workshop, Summer 2010
- Co-developed tracks for B.S. degree in Applied Discrete Mathematics and Applied Computational Mathematics, University of West Georgia
- Co-developed Masters program curriculum, University of West Georgia
- Developed courses in Combinatorics, Graph Theory, and Number Theory II, at the University of West Georgia
- Taught four 1-week workshops for area high school teachers in Calculus I and Calculus II for UNC-Greensboro program whereby high school students earn college credit (1997-98)
- Developed graduate courses in Combinatorics and Graph Theory at UNC-Greensboro
- Co-developed Applied Mathematics Track for the M.A. degree at UNC-Greensboro
- Author of numerous Master's comprehensive exams in the areas of Combinatorics, Number Theory, Graph Theory, and Algebra, 1990-present

## Conference Organizing

- Organizer and Host of the 2003, 2005, 2007, 2009, and 2011 Integers Conferences in Combinatorial Number Theory: October 31-November 2, 2003; October 27-30, 2005; October 24-27, 2007; October 14-17, 2009; October 26-29, 2011; Carrollton, Georgia
- Co-organizer of Regional Conferences in Combinatorics and Graph Theory, Greensboro, North Carolina, each of the years 1996, 1997, 1999, 2000
- Organizer of Special Session in Combinatorics and Graph Theory for the American Mathematical Society Southeastern Regional Meeting, Winston-Salem, North Carolina, October 9-10, 1998
- Organizer of Special Session in Ramsey Theory for the American Mathematical Society Annual Summer Meeting, Burlington, Vermont, August 7-8, 1995
- Co-organizer of the Southeastern Regional Meeting on Numbers, Greensboro, North Carolina, each of the years 1989, 1990, 1991

## Additional Professional Service

- Grant reviewer for National Security Agency, 2007-present
- Grant reviewer for National Science Foundation, 2006-present
- Grant reviewer for National Science and Engineering Research Council of Canada, 2003-present
- Reviewed book proposals for Prentice-Hall Publishing, Wiley Publishing, and deGruyter Publishing, 2007-present
- Reviewer for *Mathematical Reviews*; have reviewed approximately fifty articles, 1995-present
- Referee for the following journals: *Ars Combinatoria*, *Discrete Mathematics*, *J. Combinatorial Theory (A)*, *Graphs and Combinatorics*, *American Mathematical Monthly*, *Advances in Applied Mathematics*, *European Journal of Combinatorics*, *Canadian Mathematical Bulletin*, *Fibonacci Quarterly*, *Electronic Journal of Combinatorics*, *Radovi Matematiki*, *Integers: Electronic Journal of Combinatorial Number Theory*, *Proceedings of the Midwest Conference on Combinatorics, Cryptography, and Computing*
- University of West Georgia Representative to the Association of American Colleges and Universities, 2003-05
- Reader for the Advanced Placement Mathematics Exam of the Educational Testing Service, Clemson, South Carolina, 1991
- Member of the following organizations: *Institute of Combinatorics and Its Applications* (Fellow), *The American Mathematical Society*, *The Mathematical Association of America*, *The Fibonacci Association*

## Additional System, University, and College Service

- Member, Georgia Regents' Educator Preparation Academic Advisory Committee, 2005-07, 2011-present
- Member, President's Advisory Committee, University of West Georgia, 2011-present
- Member, University Special Commission to Improve Graduation Rates, 2010-present
- Member, University System of Georgia Academic Advisory Committee on Mathematical Subjects, 2001-present
- Member, Search Committee, Director of Research and Sponsored Operations, 2010-11

- Member, Executive Committee of the College of Arts and Sciences, 2002-04, 2006-08, 2010
- Chair, College Task Force on Resource Allocation, 2009-10
- Member, Senate Ad Hoc Rules Committee, 2007-08
- Member, University Review Committee on the College of Arts and Sciences, 2007-08
- Member, University Committee on Hiring Policies for Non-Citizens, 2006-08
- Member, University Graduation and Retention Task Force, 2005-07
- Member, President's University Marketing Task Force, 2005-06
- Member, College of Arts and Sciences Faculty Leave Committee, 2003-04
- Chair, Search Committee for Crider Distinguished Chair, 2002-03
- Budget and Planning Committee, College of Arts and Sciences, 2000-01
- Chair, University Student Excellence Award Committee, 1999-2000
- University Honors Council Member, 1997-2000
- Member, University Student Excellence Awards Committee, 1998-99
- Member, University Honors Curriculum Committee, 1997-98
- Member, University Honors Tutorials Committee, 1997-98
- Member, College Promotion and Tenure Committee, 1996-98
- Member, University Committee on Academic Records, 1987-88

### **Additional Departmental Service**

- Chair, Library Committee, 2000-01
- Department Honors Liaison, 1997-2001
- Chair Undergraduate Studies Committee, 1995-2001
- Chair, Committee on the Calculus Sequence, 1999-2000
- Assessment Liaison to the College, 1996-2000
- Member, Library Committee, 1995-2000
- Chair, Search Committee for Applied Mathematics Position, 1998-99

- Member, Committee on Technology in the Classroom, 1998-99
- Member, Committee on the Calculus Sequence, 1998-99
- Technology Liaison to the College, 1997-99
- Chair, Assessment Committee, 1996-98
- Chair, Personnel Committee, 1992-93, 1994-95, 1997-98
- Member, Personnel Committee, 1990-92, 1993-94, 1996-97
- Chair, Search Committee for Temporary Position in Mathematics, 1994-95
- Member, Undergraduate Studies Committee, 1993-95
- Member, Graduate Committee, 1993-95
- Member, Search Committee for Temporary Mathematics Position, 1993-94
- Member, Search Committee for tenure-track Computer Science position, 1992-93
- Member, Ad Hoc Committee on the Ph.D., 1992-93
- Member, Department telephone campaign to recruit high school seniors, 1992-93
- Member, Scholarship Committee, 1988-90, 1991-93
- Advisor for Pi Mu Epsilon, 1990-91
- Administered Mathematics Placement Examination, 1990-91
- Member, Personnel Committee, 1986-88
- Member, Business Calculus Committee, 1985-86