

Vita

Dr. David G. Robinson

Academic Achievement

- Ph.D. (1989), Emory University, Atlanta, GA
Advisor: Dwight Duffus
Area: Algebra/Combinatorics
- B.A. (1980), The Colorado College, Colo. Spgs, CO
Major: Mathematics

Positions

- Assistant Professor and Lecturer of Mathematics:
 - U. of West Georgia, Carrollton, GA, 2004-present
 - Agnes Scott College, Decatur, GA, 1996-99, 2002-04
 - Kennesaw State U., Kennesaw, GA, 2000-01
 - Truett-McConnell College, Cleveland, GA, 1999-2000
 - Guilford College, Greensboro, NC, 1991-96
 - Clemson University, Clemson, SC, 1989-91
- Actuarial Assistant - 2 years:
 - Stanley, Holcombe & Associates, Atlanta, GA, 2001-02
 - Aetna Life & Casualty, Hartford, CT, 1982-83
- Teaching Assistant in Mathematics:
 - Emory University, Atlanta, GA, 1983-89
 - The Colorado College, Colo. Spgs., CO, 1980-82

Courses Taught

Pre-calculus, calculus, differential equations, statistics, discrete math, history/philosophy of math, linear algebra, number theory, abstract algebra (undergraduate and graduate levels), combinatorics (under grad and grad), graph theory, geometry, real analysis, complex analysis, and coding theory (graduate level)

Computer Skills

MS Word, MS DOS, MS EXCEL, Geometer's Sketchpad, MATLAB, MAPLE, BASIC and FORTRAN languages, TI graphics calculators

Research Interests

Algebra/Combinatorics: block designs, finite Geometries, error-correcting codes, lattices, tournaments [Current projects: "Magic Venn Diagrams", "Fair Tournaments", "Leech forests", "Tournament polynomials".]

Number Theory: partitions, generating functions, finite fields, Diophantine equations, continued fractions, sums of divisors [Current project: "Biperfect numbers", "DigitallyPerfect Numbers".]

Publications & Presentations

- “An Arc Length Identity for Limaçons, Ellipses and Cycloids”, 17 pages (July, 2011; revised July, 2014), submitted to Math Magazine; two identities from this paper have been added by Marichev Oleg to the list of elliptic integral identities and transformations on the *Wolfram* Special Functions website (wolfram.com/functions/ellipticintegrals, 2007.)
- “Paradoxes of Infinity”, 13-page paper (unpublished), presented March 30, 2007 at University of West Georgia, *Math Day Colloquium Talk for Teachers*
- “Every $(2, r)$ -regular graph is regular”, with Abdollah Khodkar and David Leach (University of West Georgia), *Utilitas Mathematica* (2007).
- “Gaussian Polynomials”, presented at University of West Georgia, Discrete Math Seminar, December, 2005.
- “Integrals of Periodic Functions”, with Sean Ellermeyer (Kennesaw St. U.), *Mathematics Magazine* 74 (Dec., 2001).
- “Smoothness versus skewness in block designs with an application to tournaments”, *Journal of Combinatorial Designs* 3 (1995), pp. 299-305.
- “Tournament square roots”, with Ray Fletcher (Virginia St. University), *Congressus Numerantium* 106 (1995), pp. 7-25.
- “Short course on statistics”, presented in four two-hour sessions at Precision Fabrics Group, High Point, NC, January, 1995.
- “A survey of design theory and coding theory”, presented at U. of North Carolina at Greensboro, combinatorics/number theory seminar, fall, 1992.
- “Bipartitions and products of Young lattices”, presented at meeting of the American Math. Society, Tuscaloosa, AL, March of 1992.
- “The number of fixed points of a random order-preserving chain map”, presented at SIAM Conference on Discrete Math., Atlanta, GA, June, 1990.
- “On Heron Triangles”, *American Mathematical Monthly*, (May, 1990)
- “A polynomial identity”, solution to problem #E3207, *American Mathematical Monthly* 97 (1990), pp.60-70.
- Symmetric Chain Decompositions of the Lattice of Subspaces of a Finite Vector Space (Doctoral dissertation, Emory U. Library, Atlanta, GA, 1989.)

Other Academic Activities

- Directed and/or taught several seminars and independent study projects in number theory, combinatorics, history of mathematics, and complex analysis, U. of West Georgia, Guilford College and Agnes Scott College 1991-present.
- Refereed various number theory papers, UWG (2005 – present), Clemson U.(1990).
- Chaired session on “the teaching of Statistics” at Southeastern Sectional Meeting of the Math. Assn. Of America, Atlanta, GA, March, 1997.
- Directed Senior Honors Thesis (“On Steiner triple systems, perfect codes, and Steiner quasigroups”) by William Estes, Guilford College, Greensboro, NC, 1995-96.
- Organized and directed faculty seminar on “Probability and its impact on science and society”, Guilford C., Greensboro, NC, 1994.
- Served on Ph.D. thesis committee for Sekhar Mudanna of Clemson U. (Computer Science Dept., David Jacobs), 1992-93.
- Directed Master’s Thesis (“Directed friendship graphs”) by Daniel Pillone of Clemson U., Clemson, 1991.

References

- Bruce Landman, Prof. of Math., University of West Georgia, Carrollton, GA, 30118, (678) 839-6489, [landman@westga.edu]
- C. David Leach, Asst. Prof. Of Math., University of West Georgia, Carrollton, GA, 30118, (678) 839-4127, [cleach@westga.edu]
- Sean Ellermeyer, Prof. Of Math., Kennesaw St. Univ., 1000 Chastain Rd. NW, Kennesaw, GA, 30144, (770)423-6129 [sellerme@Kennesaw.edu]
- Larry Riddle, Prof. of Math., Agnes Scott College, Decatur, GA 30030-3797, (404)471-6222 [lriddle@agnesscott.edu]
- Rudy Gordh, Prof. of Math., Guilford College, Greensboro, NC 27410-4173, (336)316-2230 [rgordh@guilford.edu]
- Raymond Fletcher, Asst. Professor of Math., Virginia St. U., Petersburg, VA, 23806, (804)524-6878 [rfletcher@vsu.edu]
- Robert Jamison, Prof. of Math., Clemson University, Clemson, SC 29634-1907, (864)656-5219, [rejam@clemson.edu]
- Dwight Duffus, Prof. of Math., Emory U., Atlanta, GA, 30322-2390, (404)727-7957, [dwight@mathcs.emory.edu]
- Stephen Janke, Prof. of Math., The Colorado College, Colorado Springs, CO, 80903-3294 (719)389-6539