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EDUCATION

1980	Ph.D. Mathematics	Emory University
1977	M.S. Mathematics	Emory University
1975	B.S. Mathematics	State University of New York at Stony Brook

ACADEMIC EXPERIENCE

July 2016 – August 2017 – *Interim Chair*, Department of Mathematical & Statistical Sciences - UCD

July 2003 – present -- *Professor*, Department of Mathematical & Statistical Sciences - UCD

August 2012 – August 2014 -- *Program Director EHR/DUE*, National Science Foundation

July 2003 – August 2012 -- *Professor & Chairman*, Department of Mathematical & Statistical Sciences – University of Colorado Denver (The Department, one of three doctoral departments in CLAS has 23 faculty, 30 GTA/RAs, 40-50 additional graduate students and 20-25 part-time instructors.)

Nov. 1997 – June. 2003 -- *Associate Dean for Research & Graduate Studies*, College of Arts & Sciences – UofL (Oversaw funded and unfunded research for faculty as well as GTA distribution for the college. I ran a small internal grant program and maintained the research ethics and oversaw the related research compliance policies of the college faculty.)

July 1995 – June 2000 -- *Chairman*, Department of Mathematics – UofL (The Mathematics Department had 26 faculty, 23 GTAs and 20-25 part-time instructors.)

July 1988 – June 2003 -- *Professor*, Department of Mathematics - UofL

June 1986 - June 1988 -- *Acting Chairman*, Department of Mathematics - University of Louisville

July 1984 - June 1986 -- *Associate Professor & Vice Chair*, Department of Mathematics - University of Louisville, Louisville, Kentucky

July 1980 - June 1984 -- *Assistant Professor*, Department of Mathematics – University of Louisville, Louisville, Kentucky

AREAS OF RESEARCH INTEREST

Combinatorics and Graph Theory
Teaching and Learning Strategies in STEM at the undergraduate institutions
Mathematics, Science and Computer Science taught in grades K-12
Teacher Content Knowledge – Science & Mathematics

PROFESSIONAL MEMBERSHIPS

Mathematical Association of America
American Mathematical Society
Society for Industrial and Applied Mathematicians
National Council of Teachers of Mathematics
Founding Fellow of the Institute for Combinatorics and Applications (elected 1991)

DOCTORAL STUDENTS

- Arthur Busch 2005
Arc Traceable Digraphs
- John Wiegand, 2006
On Size Bounds for K_t -free graphs
- Jesse Gilbert, 2008
Irregular Strength of Digraphs
- Angela Harris, 2009
On H-Avoiding Graphs
- Craig Tennenhouse, 2010
Some Extensions of Saturation to Oriented Graphs.
- Brent Thomas, 2016
Saturation Number and Spectrum for Trees and Forests.
- Samantha Graffeo, (on leave)
Some Extensions of Sum Number to Quasigroups.
- Hank Turowski, (on leave)
On Interval H- Graphs.

Awards and Distinctions:

GLCTM – Educator of the Year (1988)
Founding Fellow of the Institute for Combinatorics and Applications (elected 1991)
University of Louisville A&S Outstanding Service Award (1994 & 95)
University of Louisville A&S Outstanding Research & Creative Activity
Award (1993, 1994 & 95)
University of Louisville Exceptional Performance Award (1998 - 99)
U of L Business & Professional Women Award – Boss of the Year (1999-2000)
CLAS Outstanding Faculty Award – Finalist (2011, 2012)
CU Denver Outstanding Faculty Award – Finalist (2011, 2012)

EXTRAMURAL FUNDING

- *Generalized Chromatic Number (PI)* [competitive renewal],
Office of Naval Research, \$98,800, 1986 - 1989.
- *Fourth Cumberland Conference on Combinatorics (PI)*,
Office of Naval Research, \$18,000, 1988 - 1989.
- *Generalized Chromatic Number (PI)* [competitive renewal],
Office of Naval Research, \$145,000, 1989 - 1992.
- *Intersection Graph Representations (PI)* AASERT,
Department of Defense, \$142,000, 1990 - 1994.
- *CBMS Conference – Hamiltonian Properties in Graphs (PI)*,
National Science Foundation, \$45,000, 1991 - 1992.
- *Intersection Graph Representations (PI)*,
Office of Naval Research, \$239,900, 1992 - 1996.
- *11th Cumberland Conference (co-PI)*,
Office of Naval Research, co-PI, awarded \$12,000, 1999.
- *Rocky Mountain Middle School Math/Science Partnership, (co-PI)*
National Science Foundation, \$13,600,000, 2004 - 2012.
- *16th Cumberland Conference (co-PI)*,
Office of Naval Research, co-PI, awarded \$15,000, 2004.
- *Graph Theory with Altitude, (co-PI)*,
National Security Agency \$15,000, 2005
- *CDE-Math/Science Partnership:PLASMID (co-PI)*,
Colorado Department of Education, \$597,627, 2007 - 2010.
- *Transforming Experiences: Interdisciplinary Teams of GK-12 Fellows,(PI)*
National Science Foundation, PI, awarded \$2,820,000, 2008 - 2013.
- *STEM Club Leadership for Undergraduate STEM Education, Recruiting and Success, (co-PI)*,
National Science Foundation – IUSE, awarded \$250,000 2015-2018.
- *Math: EAGER: Promoting Undergraduate Success in Early College Mathematics through Graduate Teacher Training, (PI)*, National Science Foundation, awarded \$300,000, 2015 - 2018.
- *Recruiting and Preparing Exemplary Science and Mathematics Teachers through a Student Teacher Residency Mode, (co-PI)*, National Science Foundation, awarded \$1,499,997, 2017 - 2021.

RECENT INVITED ADDRESSES

- Hikoe Enomoto 60th Birthday Conference, Tokyo, Japan - 2005
Two factors in Hamiltonian Graphs.
- Wuhan Workshop on Paths and Cycles, Wuhan, China – 2005
Forbidden Subgraphs and the cycle structure of a graph.
- Invited Lecture – SIAM, Victoria, Canada – 2006
Extremal Number of Edges in Two-Factor Hamiltonian Graphs.
- Exclll – Invited Speaker, University of Illinois – 2006
On a conjecture of Quintas and arc-traceability in upset tournaments.
- ACCOTA – Invited Speaker, Puerto Vallarta, Mexico – 2006
On H-Avoiding Hamiltonian Graphs.
- 20th Cumberland Conference – Invited Speaker, Atlanta, GA – 2007
The Game of F-Saturator.
- Special Session – AMS – Invited Speaker & Organizer, San Diego, CA – 2008
Extremal Number of Edges in Uniquely Two-Factor Graphs.
- SIAM Discrete Math Conference – Invited Speaker, Burlington, VT. - 2008
Tournament Score Sequences are pan-partition transitive.
- Colloquium, “Games on Graphs”, East China University – 11/2008
Games on Graphs.
- ACCOTA – Invited Speaker, Oaxaca, Mexico – 2008
Saturation Games on Graphs.
- Invited Panel Member & Organizer – NSF – MSP, Washington, D.C. – 2010
Impact on Graduate Student Communication through the NSF GK12 program.
- Invited Lecture Special Session - AMS, Las Vegas, Nevada – 2011
Forbidden Generalized Stars and Two Factors.
- Workshop Co-Organizer/Speaker – Hubei University, Wuhan, China, 2011
Forbidden Subgraph Problems in Hamiltonian Graphs.
My Three Favorite Open Problems in Graph Theory
- Invited Lecture Atlanta Lecture Series VI – Georgia State University – 2011
Saturation Number and its Generalizations.
- Session co-Organizer – University of Colorado Boulder – 2012
Extremal Graph Theory.
- Invited Lecture Atlanta Lecture Series VI – Georgia State University – 2011
Saturation Number and its Generalizations.
- Invited Lecture Atlanta Lecture Series VI – Georgia State University – 2011
Saturation Number and its Generalizations.
- Session Organizer – Mesa State University, MAA Rocky Mountain regional conference – 2016, “Innovative Classroom Approaches to Improving Undergraduate Mathematics Education.”
- AAAS EnFuse conference, Washington DC., 2016.
- Invited Lecture Atlanta Lecture Series XIX – Georgia State University – 2016.

RECENT SERVICE ACTIVITIES

University of Colorado - Service :

Department:

Department Chair (2003 – 2012)
Statistics Search Committee – chair (2005 – 2006)
Computational Math Search Committee (2005 – 2006)
Executive Committee - chair (2006 – 2012)
Undergraduate Studies Committee (2013 – present)

College:

Academic Standards Committee (2005-2008)
Budget & Planning Committee (2008-2012, 2015 - 2017)
Search Committee – Research Coordinator (2008 - 2009)
Search Committee – Associate Dean for Research (2008)
Executive Committee – Council of Chairs (2010 - 2012)
Executive Committee – Planning & Budget Committee (2010 - present)

University:

GK-12 Management Team, Chair – (2007 – present)
Search Committee – Graduate Dean of Consolidated UCD (2009-2010)
Continuing & Professional Education Advisory Committee
RM-MSMSP Management, Leadership, and Instructional Team (2006 – present)
Academic Board of Directors for Center for Applied Science and
Mathematics, Innovation and Competitiveness (member) (2006 – 2011)
Graduate Council – UCD – (2006 – 2009)
Associate Vice Chancellor for Research – Search Committee, UCD (2005-2006)
Academic Leadership Council - UCD (2006-2009)
Academic Master Planning Committee – UCD (2003-2005)
Vice Chancellor's Advisory Committee – UCD (2015-17)

Community Service :

Mathematics Articulation Committee – CDE – (2008 – 2010)
American Mathematical Society Committee on Science Policy – participant (2011)
K-16 Articulation Group – Cherry Creek (2007 – 2009)
Colorado Science Fair – Judge (2007 – 2009)
American Mathematical Society - Committee on Education – participant (2009-2012)
Boulder Area STEM Education Coalition (2010 – present)
Rocky Mountain Section MAA, Chair-elect (2015-16)
Chair of the Distinguished Teaching Award Committee (2015-16)
Rocky Mountain Section MAA, Section Chair (2016-18)

RECENT SERVICE ACTIVITIES (cont.)

Professional Service :

Referee for:

Discrete Mathematics (1981- present)
Networks (1985- present)
Utilitas Mathematica (1985 - present)
Ars Combinatoria (1986- present)
Graphs and Combinatorics (1989- present)
Journal of Graph Theory (1990- present)
SIAM Journal of Applied Discrete Mathematics (2000 - present)
SIAM Proceedings of Conference on Discrete Mathematics (2001)

Research Review for:

Department of Defense (1989-200)
Natural Science and Engineering Research Council of Canada (1998 – present)
National Science Foundation (2004, 2007, 2009, 2010)
National Security Agency (AMS 2004- present)

Editorial Duties:

Discussiones Mathematicae: Graph Theory (Editorial Board 1986 – present)
International Journal of Mathematics and Statistics (Editorial Board 2012 - present)

Review for:

Math Reviews (1981 – present)

National/Regional Professional Committees:

MAA Programs Committee & Traveling Lecturer Program (1984 – 1996)
RM - MAA Nominating Committee (Chair) & Executive Committee (2007 – 2011)

Organizing Committee for:

Cumberland Combinatorics Conference (1988 – 2004)
Ramanujan Society - Combinatorics and Number Theory Conference (1995 - 1996)
Section Chair – Rocky Mountain Section of the Mathematical Association of America
(2016 – 2018)

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U of L Business & Professional Women Award – Boss of the Year (1999-2000)
CLAS Outstanding Faculty Award – Finalist (2011, 2012)

RECENT COURSES TAUGHT AT UCD:

MATH:

MATH 4408 Applied Graph Theory – 2004, 2010, 2011
MATH 4409 Applied Combinatorics – 2004, 2011, 2012
MATH 5405 Graduate Applied Graph Theory – 2005, 2007
MATH 6409 Graduate Applied Combinatorics – 2006, 2008
MATH 7023 Topics in Discrete Math – Degree Sequences - 2006
MATH 7405 Advanced Graph Theory - 2008
MATH 7410 Combinatorial Structures - 2009
MATH 7923 Readings in Combinatorics – 2005, 2006, 2008, 2009, 2010, 2011

MCKE (Mathematics Content Knowledge for Educators):

MCKE 5001 Algebraic Patterns and Functions I (co-taught) – 2004, 2005
MCKE 5002 Algebraic Patterns and Functions II (co-taught) – 2005, 2006
MCKE 5006 Mathematics of Change (co-taught) – 2006, 2007
MCKE 5007 Discrete Mathematics – Counting the Possibilities – 2006, 2007, 2008,
2009, 2010

Lead the Development Team to create the nine new courses: MCKE 5000, 5002, 5003, 5004, 5005,
5006, 5007, 5008, 5011.