

Melvin Royer

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EDUCATION

1997 Ph.D., Mathematics, Purdue University
1991 ABD, Electrical Engineering, Purdue University
1989 M.S., Electrical Engineering, Purdue University
1988 B.S., Electrical Engineering, with highest distinction, Purdue University

WORK EXPERIENCE

2009 – Present *Division Chair*, Division of Mathematics and Computer Information Sciences
Indiana Wesleyan University, Marion IN

- Co-designed classrooms and faculty office area for move to new academic building
- Served as interim CIS Department Coordinator
- Represented division at Academic Affairs and Division Chair meetings
- Developed new Math Interdisciplinary major
- Wrote content for updated divisional website and print recruiting materials
- Chaired numerous search committees for new faculty hires
- Mentored new faculty in professional development
- Set agenda and led division meetings
- Implemented division level program assessment plans
- Disseminated information and served as liaison between faculty and administration
- Wrote capital and technology requests
- Led divisional external review
- Evaluated faculty seeking promotion and multi-year contracts and responded to faculty annual self-evaluations
- Hired and supervised adjunct faculty

2006 – 2009 *Department Coordinator*, Department of Mathematics,
Indiana Wesleyan University, Marion IN

- Planned department budget and teaching schedules
- Wrote capital and technology requests
- Hired and oversaw adjunct faculty
- Co-designed mathematics classrooms when department moved to renovated building
- Set agenda and led department meetings
- Co-led departmental assessment efforts and report writing
- Led search committee for new faculty hire
- Planned and hosted departmental social events
- Led department curriculum restructuring
- Initiated Mathematics Department Colloquium

2001 – Present *Associate Professor*, Division of Natural Sciences and Mathematics,
Indiana Wesleyan University, Marion IN

- Supervised student undergraduate research project in pitch recognition using artificial neural networks
- Refereed articles for PRIMUS journal
- Designed and taught First Year Experience combined math/orientation course for new freshmen
- Designed and taught fully online section of liberal arts mathematics course
- Chair of MAA Indiana Section (2012-2013), including planning two section meetings
- Led planning for hosting Spring 2011 MAA Indiana Section Meeting at IWU
- Taught 26 different math courses at all undergraduate levels plus three physics courses, one computer science course, and a university freshmen orientation course.
- Developed computer projects using Maple®, Minitab®, Geometers Sketchpad®, Excel
- Implemented tablet technology into classes
- Co-developed pre-engineering program (implemented 2010)
- Developed engineering program preliminary proposal
- Faculty advisor for student math club
- Team sponsor for state MAA math contest
- Faculty advisor for one senior honors thesis and numerous independent study courses
- Mentored new faculty members, officially and unofficially
- School observations and supervision of mathematics education student teachers
- Academic advising of math majors
- Mathematical Association of America Project NExT-Indiana Fellow
- Developed four new mathematics courses
- Adapted a course for online delivery and successfully taught the course
- Initiated and conducted department colloquium series
- Took students to national and state conferences
- Grader for AP® Calculus exams
- Served on the following Indiana Wesleyan Faculty Committees

University Technology Committee
 Nominating Committee (faculty elections committee)
 General Education Committee
 Academic Policies and Procedures Committee
 Academic Affairs Council
 Secondary Education Committee
 University Faculty Relations Council
 Academic Advising Committee
 Faculty Chapel Steering Committee
 Technology Committee
 Task force for restructuring university faculty committees
 Task force for restructuring IWU General Education

- Served on the following MAA Committees
 National Committee on Two-Year Colleges
 Indiana Section Distinguished Service Award Selection Committee (chair)
 Indiana Section Executive Board (chair)

1998 – 2001

Instructor, Department of Mathematics, Parkland College, Champaign IL

- Awarded tenure and promotion to Associate Professor for 2001-2002 contract
- Taught nine different courses at all community college levels
- Extensive Derive® and graphing calculator classroom use
- Supervised students doing self-study developmental courses in college Learning Lab

- Mentored new full-time instructor
 - Chaired or served on the following Parkland College Committees:
 - Mathematics 2000-2001 Faculty Search Committee (Chair)
 - Mathematics Transfer Course Academic Assessment Committee (Chair)
 - Parkland College Faculty Professional Development Committee (Chair)
 - Mathematics Department Student Scholarship Committee (Chair)
 - Parkland College Committee on Academic Exceptions and Student Affairs
 - Two prior Mathematics Faculty Search Committees
 - Various Textbook Committees
- 1997 – 1998 *Adjunct Instructor*, Department of Mathematics, Ivy Tech State College, Lafayette IN
- 1990 – 1997 *Teaching Assistant*, Departments of Mathematics and Electrical Engineering,
Purdue University, West Lafayette IN
- 1985 – 1988 *Cooperative Education Intern* (alternating semesters), IBM Corporation, Boca Raton FL
- VLSI chip design
 - Debugging prototype PC motherboards
 - Quality control engineering on PC manufacturing line

SELECTED VOLUNTEER EXPERIENCE

Team supervisor and classroom instructor of Asian middle-school English teachers through the Summer Training Program of the Christian volunteer organization English Language Institute.

- 2012 *Team Supervisor*, ELI Camp Mongolia, Ulaanbaatar, Mongolia
- 2009 *Team Supervisor*, Deyang Foreign Language School, Deyang, China
- 2007 *Team Supervisor*, Shunyi Technical Institute, Shunyi, China
- 2005 *Instructor*, Chaoyang Education College, Beijing, China
- 2000 *Instructor*, Changchun Education College, Changchun, China
- 1999 – 2000 *Volunteer ESL Tutor*, Project READ (Adult Literacy), Champaign IL
- 1996 – 1997 *Volunteer ESL Tutor*, Lafayette Adult Reading Academy, Lafayette IN

SELECTED AWARDS AND GRANTS

- 2013 Indiana Wesleyan Ott Award for science faculty
- 2010 Indiana Wesleyan Principium Lecture grant
- 2005 Who's Who in American Teachers (by student nomination)
- 2000 Who's Who in American Teachers (by student nomination)
- 1996 Excellence in Teaching Award, Purdue University Department of Mathematics
- 1994 – 1997 Purdue Research Foundation Grant
- 1994 MacLane Award for Scholarship/Teaching, Purdue University Dept of Mathematics

CURRENT PROFESSIONAL MEMBERSHIPS (since given date)

- 2001 Association of Christians in the Mathematical Sciences
- 1991 American Mathematical Society
- 1997 Mathematical Association of America

CONFERENCE/WORKSHOP PRESENTATIONS (also numerous IWU Math Colloquia)

- 2012 “Getting the Act Together,” Joint Meetings of the AMS/MAA, Boston MA
- 2011 “Thinking About Thinking: Projects With Neural Network Models,” MAA MathFest, Lexington KY
- 2011 Faculty workshop on Faith and Integration, Indiana Wesleyan University
- 2010 “Dynamical Systems: Mathematical Beauty Joins Utility,” Indiana Wesleyan University Principium Lecture Series, Marion IN
- 2010 “Gabriel’s Other Equipment”, MAA Indiana Section Meeting, Franklin College, Franklin IN
- 2010 “Gabriel’s Other Equipment”, Joint Meetings of the AMS/MAA, San Francisco CA
- 2008 “Hands-on Correlation Activities in Introductory Statistics,” Joint Meetings of the AMS/MAA, San Diego CA
- 2007 “Success Stories in a First Year Seminar for Math Majors,” Joint Meetings of the AMS/MAA, New Orleans LA
- 2005 “Economical Radar Guns”, Joint Meetings of the AMS/MAA, Atlanta GA
- 2004 “Starting Math Majors Off on the Right Foot,” Joint Meetings of the AMS/MAA, Phoenix AZ (with Gail Greene)
- 1998 “Ginzburg-Landau Equations for a Three-Dimensional Superconductor in a Strong Magnetic Field,” Pi Mu Epsilon Conference, Miami University, Oxford OH

SELECTED PROFESSIONAL CONFERENCES ATTENDED (also active in Indiana MAA Section)
(* = took undergraduate students)

- 2014 *Joint Meetings of the AMS/MAA, Baltimore MD
CIC Workshop for Department/Division Chairs, St Louis MO
- 2013 *Special Interest Group of the Association of Computing Machinery, Denver CO
- 2012 *Joint Meetings of the AMS/MAA, Boston MA
- 2011 *Joint Meetings of the AMS/MAA, New Orleans LA
AAC&U Engaging Departments Institute, Ellicott MD
MAA MathFest, Lexington KY
- 2010 *Joint Meetings of the AMS/MAA, San Francisco CA
MAA PREP Workshop “Mathematical Modeling in Population Biology and Epidemiology,”
Lubbock, TX
MAA MathFest, Pittsburgh PA
- 2009 Association of Christians in the Mathematical Sciences National Meeting, Wheaton IL
- 2008 *Joint Meetings of the AMS/MAA, San Diego CA
- 2007 Joint Meetings of the AMS/MAA, Atlanta GA
- 2006 MAA PREP Workshop “Leading the Academic Department”, Washington DC
MAA PREP Course “Mathematical Biology”, Sweet Briar VA
NSF Chautauqua Course “Engineering and Mathematics”, Ruston LA

- MAA MathFest, Knoxville TN
- 2005 Joint Meetings of the AMS/MAA, Atlanta GA
Association of Christians in the Mathematical Sciences National Meeting, Huntington IN
- 2004 Joint Meetings of the AMS/MAA, Phoenix AZ
Coalition of Christian Colleges and Universities New Faculty Workshop, Elgin IL
- 2003 MAA PREP Course “Teaching Mathematical Masterpieces,” Boulder CO
MAA MathFest, Boulder CO
- 2002 Joint Meetings of the AMS/MAA, San Diego CA
- 2000 AMATYC Annual Meeting, Chicago IL
Joint Meetings of the AMS/MAA, Washington D.C.

PUBLICATIONS

- 2012 Gabriel’s Other Possessions, *PRIMUS*, vol 22, issue 4, 2012.
- 2001 *Linear Algebra with Business Applications 3/e* (with Sherbert, Brown, and Adawi), McGraw-Hill
Primis Custom Publishing, 2001.
- 1997 *Ginzburg-Landau Equations for a Three-Dimensional Superconductor in a Strong Magnetic Field*, Ph.D. Thesis. Major area: Partial Differential Equations and Applied Mathematics.