DEPARTMENT OF MATHEMATICS • UNIVERSITY OF TEXAS AT TYLER• TYLER, TX
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J. REGAN BECKHAM

EDUCATION

2008 University of Delaware Newark, DE
Ph.D. Applied Mathematics

2006 University of Delaware Newark, DE
M.S. Applied Mathematics

2003 University of Central Arkansas Conway, AR
M.A. Mathematics Education

2001 University of Central Arkansas Conway, AR
B.S. Applied Mathematics

PROFESSIONAL EXPERIENCE

2008 University of Texas at Tyler Tyler, TX
Assistant Professor

Teaching duties include Statistics, Matrix Methods for Scientists and Engineers, and Mathematical Modeling and Numerical Analysis. My research involves the analysis of electrostatic-elastic structures in micro- and nano-electromechanical systems (MEMS and NEMS).

2003 - 2008 University of Delaware Newark, DE
Teaching Assistant

Instructor for undergraduate courses in Calculus I, II, and III during winter and summer sessions. Instructor for Calculus III and Differential Equations at The Charter School of Wilmington during fall and spring semesters. Spent one semester as a teaching assistant for Calculus II.

2002 - 2003 University of Central Arkansas Conway, AR
Teaching Assistant

Instructor for an undergraduate course in College Algebra during the fall and spring semesters.

HONORS

University of Delaware Excellence in Teaching Award for Graduate Student Teaching – May 2007

Baxter/Sloyer Excellence in Teaching Award for Graduate Student Teaching – May 2007

SIAM outstanding efforts and accomplishment award for the SIAM Student Chapter of Delaware – May 2007

Nicholas P. Pyrros Excellence in Teaching Award – May 2004

SERVICES

Participated in the 2007 TA Conference at the University of Delaware. Duties included running workshops for new graduate TA's at UD. The goal was to help prepare them for there new role as a TA at the university.

Sessions Facilitated:

“Teaching Math, Science, and Engineering Problem Solving Sections: Tips from TA's”

“Listening to Your Students: The Power of Student Feedback”

PUBLICATIONS

J.R. Beckham, J.A. Pelesko, An Electrostatic-Elastic Membrane System with an External Pressure, Journal of Diff. Eqn. (submitted)

J.R. Beckham, J.A. Pelesko, Symmetry Analysis of a Canonical MEMS Model, Methods and Applications of Analysis, Vol. 15, Num. 3 (2008)

D.J. Arrigo, J.R. Beckham, Nonclassical symmetries of evolutionary partial differential equations and compatibility, J. Math. Anal. Appl. 289 (2004) 55--65

PRESENTATIONS AND RECENT SCIENTIFIC ACTIVITIES

AMS Winter Meeting 2010, Presented in AMS Special Session of Mathematics and Physical Experiment, “Modeling of Electrostatic-Elastic Membrane Systems Motivated by MEMS”

SIAM Conference on Analysis of PDE's, December 2009, Presented in SIAM Minisymposium on Concentration Phenomena and Blowup in Nonlinear Elliptic and Parabolic Problems. ”A Constrained Capacitive System Arising in MEMS”

Math Club Talk, Fall 2009, “Richardson Arms Race”

Math Club Talk, Spring 2009, “Soap Films and Soap Bubbles”

Presented a poster at the Frontiers in Applied and Computational Mathematics (FACM) at New Jersey Institute of Technology (NJIT) May2007. “Analysis of the Electrostatic Deflections of an Elastic Membrane with Tailored Dielectric using Symmetry”

Graduate Student Seminar, University of Delaware, September 27 2006 “The Math I Use. a.k.a. A continuation of Mathematical Modeling of Electrostatic MEMS with Tailored Dielectric Properties”

Participated in the 2006 Graduate Student Math Modeling Camp(GSMMC) at Rochester Polytechnical Institute(RPI).

Graduate Student Seminar, University of Delaware, November 6 2004

"Nonclassical symmetries of evolutionary partial differential equations and compatibility"

MAA OK-AR Meeting, April 2003 "Nonclassical symmetries of evolutionary partial differential equations and compatibility"

JOURNAL REFEREE

Acta Mathematica Sinica

ASME Journal of Dynamical Systems, Measurement, and Control

Journal of Differential Equations