

# Daniel Vasiliu

Department of Mathematics  
Christopher Newport University  
1<sup>st</sup> University Place, Newport News, VA 23606  
Phone: (757) 594-7261  
E-mail: daniel.vasiliu@cnu.edu

4225 Teakwood Dr  
Williamsburg, VA 23188  
Phone: (757) 271-6563

## EDUCATION:

**Ph.D. in Applied Mathematics**, Michigan State University, May 2004  
Thesis subject in Calculus of Variations and Problems of Optimization:  
*Constrained lower semicontinuity problems in the calculus of variations*

**M.S. in Mathematics**, University of Iași "Al.I.Cuza", Romania, 1998  
Thesis subject in Problems of Optimization and Numerical Analysis:  
*The approximation of the parabolic variational inequalities of first type*

**B.S. in Mathematics**, University of Iași "Al.I.Cuza", Romania, 1997

## RESEARCH INTERESTS:

Calculus of Variations, Optimization, Partial Differential Equations,  
Dynamical Systems, Numerical Analysis.

## TEACHING EXPERIENCE:

**Assistant Professor** at Christopher Newport University, August 2005 – present

**Postdoctoral** at Michigan State University, August 2004- August 2005

**Graduate Teaching Assistant** at Michigan State University, August 1998-June 2004

Classes taught to date:  
*Linear Algebra, Writing in Mathematics, Partial Differential Equations  
Calculus Sequence, Harvard Calculus, PreCalculus, Elementary Statistics  
Intermediate Algebra, College Algebra, Introduction to Geometry  
for Prospective Elementary School and Middle School Teachers,*

## PROFESSIONAL EXPERIENCE:

**Project** with 3M Company: team work on *Optimal Design for a Varying Environment*,  
IMA Mathematics Modeling in Industry Workshop, University of Minnesota, June 2002

**Supervisor** at the Mathematics Learning Center, Michigan State University, 2001-2003

## TECHNICAL SKILLS:

**Using technology for teaching:** MyMathLab by Addison Wesley; computer-based presentations and practice problems.

**Experience with dedicated software:** Matlab, Maple, Mathematica, C++, Fortran

**Operating systems:** LINUX, OS X, Windows XP, Vista

## TALKS AND CONFERENCES:

**CSUMS Summer Research Program**, The College of William&Mary, July 2008:  
*Microstructures and Optimal Environments*

**The Mathematical Association of America MD-DC-VA Conference**, James Madison University, Spring 2008: *Constant Rank Linear Combinations of Matrices*

**The Mathematical Association of America MD-DC-VA Conference**, Arundel Community College, Fall 2007: *Rank One Convexity and Quasiconvexity with Linear Constraints*

**Faculty Conference on Teaching, Learning, Scholarship and Research**, August 2007, CNU: *On a Problem Motivated by the Microstructure of the Elastic Crystals*

**The Mathematical Association of America MD-DC-VA Conference**, Baltimore, Spring 2006: *An extended mean value theorem for definite integrals*

**AMS National Meeting**, Atlanta, January 2005, Contributed Talks: *On a restricted lower semi-continuity problem with linear constraint*

**AMS National Meeting**, Phoenix, January 2004

**Partial Differential Equations Seminar**, Michigan State University, October 2003: *On a Convexity Result for Smooth Functionals and its Application*

**Advances in Nonlinear Analysis**, CNA, Carnegie Mellon University, May 2003

**Partial Differential Equations Seminar**, Michigan State University, April 2003: *Lower Semicontinuity with Linear Constraint of Constant Dimension*

**Quasiconvexity and its Applications**, Princeton University, November 2002

**Partial Differential Equations Seminar**, Michigan State University, October 2002: *A- Quasiconvexity and Applications*

**IMA Mathematics Modeling in Industry Workshop**, University of Minnesota, June 2002: *Optimal Design for a Varying Environment*

**Partial Differential Equations Seminar**, Michigan State University, November 2000: *An Existence Result for the Two-Well Problem in Two Dimensions*

## PUBLICATIONS:

**D. Vasiliu**, *On a generalization of rank-one convexity and quasiconvexity*, to be revised

**P.Khalili, D. Vasiliu** *An extended mean value theorem for integrals*, submitted, PiMuEpsilon Journal, 2007

**D. Vasiliu, B. Yan.** *On restricted weak lower semicontinuity for smooth functionals on Sobolev space*, 2006, Indiana University Mathematics Journal, Vol.55, No.2

**D. Vasiliu, B. Yan.** *(PS)-weak lower semicontinuity in one-dimension: a necessary and sufficient condition*, 2006, Nonlinear Analysis

**D. Vasiliu.** *Constrained lower semicontinuity problems in the calculus of variations*, Ph.D. Thesis, May 2004

**D. Vasiliu et al.** *Optimal design for a varying environment*, IMA Proceedings 2002, preprint series

**D. Vasiliu.** *The approximation of the parabolic variational inequalities of first type*, M.S. thesis, June 1998

**WORK IN PROGRESS**

**J.P.Tian, D.Vasiliu**, *On a mathematical model for glioma under virotherapy*

**D. Vasiliu**, *An equivalent formulation for A-quasiconvexity*,

**HONORS:**

**Tempus Program Scholarship** (European Community) for completing the Masters Thesis research at Paris 6 University- "Pierre et Marie Curie", France

**Achievement Scholarship** at University of Iași "Al.I.Cuza", Romania, 1994-1997

**PROFESSIONAL AFFILIATIONS:**

American Mathematical Society