

# John A. Gemmer

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Program in Applied Mathematics  
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EDUCATION	<b>University of Arizona:</b>	
	PhD student, Applied Mathematics	Aug. 2006-Present
	M.S., Applied Mathematics	Dec. 2008
	<b>Millersville University of Pennsylvania:</b>	
	B.S. Mathematics	May 2006
	B.S. Physics	May 2006
AWARDS AND HONORS	<b>Millersville University:</b>	
	SIAM Student Research Award	Aug. 2005
	Edna H. Myers Scholarship in Mathematics	Aug. 2005
	Class of 1866 Award	May 2006
	SSM Award for Outstanding Poster	May 2006
	Departmental Honors: Mathematics	May 2006
	Departmental Honors: Physics	May 2006
	Magna Cum Laude	May 2006
	<b>University of Arizona:</b>	
	Graduate College Fellowship	May 2008
RESEARCH EXPERIENCE	<b>University of Arizona, Tucson, AZ USA</b>	
	<i>Research Assistant</i>	Jan. 2009–Present
	Research on the equilibrium configuration of thin elastic sheets with a prescribed metric.	
	<i>Research Tutorial Group</i>	Aug. 2007-Dec. 2007
	Research on the dynamics of honey coiling.	
	<b>Florida State University, Tallahassee, FL USA</b>	
	<i>Undergraduate Research Assistant</i>	June 2004-Aug. 2004
	Research on the multiple scale behavior of viscoelastic drops falling in viscous fluid.	

## Millersville University

### *Undergraduate Thesis*

Research on curves of shortest time of flight for particles lying on surfaces in arbitrary gravitational field.

Jan. 2005-May 2006

## TEACHING EXPERIENCE

### University of Arizona, Tucson, AZ USA

#### *Graduate Teaching Assistant*

Aug. 2006-Dec. 2008

- Primary instructor for the following courses:
  - Trigonometry
  - College Algebra
  - Calculus Preparation
  - Calculus
- Senior graduate teaching assistant for the following courses:
  - Principles of Analysis
- Mentor for a group of undergraduate students enrolled in University of Arizona's Mathematical Modeling course.

#### **New Start Summer Program** (University of Arizona)

#### *Instructor of Mathematics*

- Taught summer course in Calculus Preparation to incoming freshman. June 2008-Aug 2008
- Prepared a workshop for how to write statement of purposes.
- The program focused on preparing underrepresented students for college life both academically and socially.

## LEADERSHIP

#### *Siam Student Chapter President*

President of student chapter of SIAM at the University of Arizona

Aug. 2009 – Present

#### *Brown Bag Organizer*

Organizer for student run colloquium.

Aug. 2008–May 2009

## PUBLICATIONS

- J. Gemmer and S. Venkataramani, "Shape selection in negatively curved elastic disks" (preprint).
- J. Gemmer, M. Nolan, and R. Umble, "Generalizations of the Brachistichrone Problem" (preprint)

## TALKS

- 2009 - *Elastic Discs and the Ripples in Leaves*, University of Arizona: Brown Bag graduate student colloquium.
- 2009 – *Inducible Shape Transitions in Thin, Non-Euclidean, Elastic Discs*. University of Arizona: Analysis and its Applications Seminar.

COMPUTER  
SKILLS

- 2008 – *How to Control a Front Wheel Drive Bike*. University of Arizona: Brown Bag graduate student colloquium.
- 2007 – *Nonlinear Dynamical Control and How to Parallel Park a Car*. University of Arizona; RTG presentation.
- 2006 – *Generalizations of the Brachistichrone Problem*. Mathfest Albuquerque
- **Languages:** C++, Matlab, Visual Basic, Applesoft.
- **Applications:** Latex, Mathematica, common Microsoft windows software.
- **Operating Systems:** Windows, Linux/Unix,.