

Nessy Tania

CONTACT INFORMATION	Department of Mathematics University of Utah 155 S. 1400 E. Rm 233 Salt Lake City, UT 84112-0090	<i>Phone:</i> 801-581-6195 <i>Fax:</i> 801-581-4148 <i>E-mail:</i> tania@math.utah.edu <i>WWW:</i> http://www.math.utah.edu/~tania
EDUCATION	University of Utah Ph.D., Mathematics (expected May 2009) <ul style="list-style-type: none">• Thesis Topic: Stochastic and spatial models of calcium regulations• Advisor: James P. Keener M.S., Applied Mathematics, May 2005 University of California, Davis B.S., Mathematics, June 2002 <ul style="list-style-type: none">• Highest Honor with Departmental Citation	
RESEARCH EXPERIENCE	IGERT Summer Project , University of Auckland <ul style="list-style-type: none">• Developed a model of cross-bridges in airway smooth muscle. Performed data-fitting to experimental result on airway and arteriole smooth muscle.• Project Supervisor: James Sneyd Coagulation Project , University of Utah <ul style="list-style-type: none">• Investigated the effect of flow and platelets deposition on the blood coagulation cascade.• Project Supervisor: Aaron Fogelson IGERT Lab Rotation , University of Utah <ul style="list-style-type: none">• Developed kinetic model for cadmium binding to HERG potassium channels. Learned to use two-microelectrodes voltage clamp.• Project Supervisor: Michael Sanguinetti Givens Associate , Argonne National Laboratory <ul style="list-style-type: none">• Studied <i>a-posteriori</i> error estimation and adaptive mesh refinement for solving elliptic partial differential equations using finite element method.• Project Supervisor: Matt Knepley and Barry Smith Senior Honor Thesis , UC Davis <ul style="list-style-type: none">• Studied the effect blood flow on the genesis of atherosclerosis computational fluid dynamics techniques.• Project Supervisor: Angela Cheer	Summer 2006 2003-2006 Summer 2004 Summer 2003 2000-2002
TEACHING EXPERIENCE	Instructor , University of Utah Math 2280 - Introduction to Differential Equations Math 2250 - Ordinary Differential Equations and Linear Algebra for Engineers Math 1180 - Mathematics for Life Scientists Reader , UC Davis Graded homework in undergraduate courses including calculus, combinatorics, linear algebra, real analysis, and numerical analysis	2005-2007 2000-2002

AWARDS

University of Utah

- IGERT Traineeship in Mathematical Biology, 2003-2005

UC Davis

- McNair Scholarship, 2000-2002
- Undergraduate Research Traineeship in Nonlinear Dynamics in Biology, 2000-2002

PUBLICATIONS

I. Wang, A.Z. Politi, N. Tania, Y. Bai, M. Sanderson and J. Sneyd. A mathematical model of airway and pulmonary arteriole smooth muscle. *Biophys. J.*, 2008, 94:2053-3064.

A.L. Fogelson and N. Tania. Coagulation under flow: The influence of flow-mediated transport on the initiation and inhibition of coagulation. *Pathophysiol. Haemost. Thromb.* 2005, 34(2-3):91-108.

CONFERENCES

SIAM Conference on Applications of Dynamical Systems

Snowbird, Utah

May 2007

- *Poster*: Stochastic Calcium Release in Ventricular Cardiac Myocytes

2006 NSF-IGERT Project Meeting

Arlington, Virginia

May 2006

- *Poster*: Control of Calcium Release in Cardiac Muscle

Workshop on Applications of the Methods of Stochastic Systems and Statistical Physics in Biology

University of Notre Dame

October 2005

- *Poster*: Graded calcium release in a stochastic model of cardiac muscle.

Graduate Summer School in Mathematical Biology

Institute of Advanced Study/Park City Mathematics Institute

July 2005

- *Project Presentation*: Resetting Reentrant Excitation Oscillations
- Teaching assistant for a course on Fixed Points and Topological Approaches to Biological Dynamics taught by Leon Glass.

2001 Western Regional McNair Symposium

University of California, Berkeley

October 2001

- *Presentation*: Unsteady Flow in the Rabbit Aorto-Celiac Bifurcation

SELECTED LOCAL PRESENTATIONS

Stochastic simulations of chemical reactions

Graduate Student Colloquium

December 2007

Propagation of calcium waves in cardiac cells

Graduate Student Colloquium

February 2006

ACADEMIC SERVICES

Department of Mathematics, University of Utah

Graduate Student Advisory Committee (GSAC)

- Retention, Promotion and Tenure Committee, 2006-2007
- Colloquium Organizer, 2004-2006

Co-organizer for the Second Annual Mathematical Biology Student Workshop with Leah Edelstein-Keshet, 2006