# **CURRICULUM VITAE**

Name:	Kádas, Zsuzsanna Margit
Current Position:	Professor, Department of Mathematics,
	St. Michael's College, Colchester, VT 05439

## Education

Ph.D. Rutgers University, N.J.; 1982 (Applied Mathematics) Thesis title: Two-Species Reaction-Diffusion Systems: A Piecewise--Linear Model
M.S. Rutgers University, N.J.; 1976 (Mathematics)
B.S. St. John's University, N.Y.; 1974 Summa cum Laude (Mathematics and Physics)

# Undergraduate/GraduateHonors

Senior Class Speaker 1974 Prize for Excellence in Physics 1972, 73, 74 Danforth Graduate Fellowship 1974-78

### **Professional Experience**

St. Michael's College	2:
1997	Professor of Mathematics
Fall 2006	Acting Chair, Dept. of Mathematics
1989 1997	Associate Professor of Mathematics
1988 1997	Chair, Department of Mathematics
1987 1988	Acting Chair, Department of Mathematics
1985 1989	Assistant Professor of Mathematics
University of Vermon	ıt:
2008-09; 1999-2000	Visiting Professor
1993 1998	Visiting Associate Professor
1982 1985	Assistant Professor of Mathematics
1980 - 1982	Instructor of Mathematics

# Honors

Norbert Kuntz Service Award - Fall 2008

### **Publications/Preprints**

- 1. Math and Bio 2010 Poster ( "centerfold" and brief description of the Seashell images; June/July 2010 issue of MAA Focus, The Newsmagazine of the Mathematical Association of America; Volume 30, Number 3, pp.15-17
- "Modeling Seashell Morphology" (with J. Ellis-Monaghan, G. Ashline and Declan McCabe). 2009. UMAP Modules in Undergraduate Mathematics and Its Applications: Module 801. In UMAP/ILAP Modules 2009: Tools for Teaching, edited by Paul J. Campbell, 101-139. Bedford, MA: COMAP.
- 3. "What we learned...by organizing and hosting an MAA sectional meeting" (with G. Ashline, K-D. Crisman, J. Ellis-Monaghan, G. Pangborn, L. Simons, *MAA Focus*, April/May 2009.

- 4. *A mathematical model of the intracranial system including autoregulation* (with W.D. Lakin, J. Yu, P.L. Penar), Neurological Research 19, 441 450, 1997
- 5. *A two-cell system with piecewise-linear kinetics*, Modelling and Simulation, Volume 15 (Proceedings of the 15th Annual Pittsburgh Conference) 1143-1150, 1984
- 6. A piecewise linear activator-inhibitor model, 91 page unpublished typescript, 1983
- 7. *Reply to a comment on 'Stable limit cycles...'*, (with H. G. Othmer) J. Chem. Phys. 72(04), 2900-2901 (1980)
- 8. *Stable limit cycles in a two-component bimolecular reaction system*, (with H. G. Othmer) J. Chem. Phys. 70(04), 1845--1850 (1979)

# Grants and Other External Funding (since 1996)

- NASA National College Grant and Fellowship Program (granted to VT Spacegrant Consortium)"Grants for Mentored Undergraduate Research at Saint Michael's College" 2006 – 2015 (P.I./Project Director for Saint Michael's portion)
- 2. NASA-EPSCoR Grant (to VT NASA EPSCoR Consortium) : *Introducing Respiration into the Whole-Body Model for Intracranial Pressure Regulation*, April 2002 March 2003 (Cooperating Investigator)
- 3. NASA-EPSCoR Grant (to VT Space Grant Consortium): *Improved Seven-Compartment Models for Intracranial Pressure Dynamics*, July 1999 - June 2000; renewed July 2000-June 2001 (Cooperating Investigator)
- 4. NASA-Vermont Space Grant Consortium Minigrant: Improved Seven-Compartment Models for Intracranial Pressure Dynamics; June 1998 May 1999
- NASA-Vermont Space Grant Consortium Minigrant: Models of Intracranial Pressure Dynamics with Autoregulation; June 1997 - February 1998 NASA-Vermont Space Grant Consortium Minigrant: Autoregulation in Models of Intracranial Pressure Dynamics; June 1996 - May 1997
- 6. NSF Vermont EPSCoR Research Fellowship, Intracranial Pressure Dynamics Modeling Group, University of Vermont, Summer 1996
- 7. NASA-Vermont Space Grant Consortium Minigrant: A Seven--Compartment Model of the Intracranial System Including Autoregulation; June 1995 through May 1996

# Invited and Contributed Lectures (since 1996)

- 1. Mathematical Association of America Northeast Section Meeting; contributed paper; "Pressure Regulation in the Brain: Compartmental Models", June 2000
- 2. Hudson River Undergraduate Mathematics Conference; contributed talk; *Compartmental Models of the Intracranial System with Autoregulation*, April 1999
- 3. Mathematical Association of America Annual Meeting, Session on Rethinking the Upper Level Core Courses; contributed talk; *Real Analysis: Lean, Lively, and Writing Intensive?*, January 1998
- 4. American Mathematical Society Annual Meeting, Session on Biology; contributed talk; *Auto-regulation in a Compartmental Model of the Intracranial System*, January, 1997
- 5. Mathematical Association of America, Northeast Section Meeting; contributed talk; *Aspects of Reform: Calculus Laboratories at St. Michael's College*,(with G. Ashline) November, 1996

6. Gordon Research Conference on Theoretical Biology and Biomathematics; contributed poster; *Compartmental Models of the Intracranial System with Autoregulation*, June, 1996

### **Professional Service**

Mathematical Association of America *Project NexT* Consultant 1999--2000 Referee for *Journal of Theoretical Biology*, 1996 – Referee for PRIMUS 2010 -Member of the *Committee on Computers in Mathematics Education*, Mathematical Association of America, 1997 – 2000; 2000 -- 2003 Vermont Space Grant Consortium Advisory Board (SMC Representative), 1993 --

# **Research Interests**

Nonlinear dynamics, coupled oscillators, chaos and fractals. Mathematical modeling of biological systems. Reaction-diffusion systems and their application to mathematical models in chemistry, physiology, population biology. Differential Equations. Numerical Methods applied to these areas.

## **Professional Affiliations**

Mathematical Association of America (25 year member) Society for Mathematical Biology Association for Women in Mathematics

## Honor Societies

*Pi Mu Epsilon* – national Mathematics society; Faculty Advisor for VT Alpha Chapter 2003-*Delta Epsilon Sigma* 

# Foreign Languages

German: completely fluent in reading, writing and speaking; French: fluent in reading; competent in writing and speaking; some acquaintance with Hungarian and Latin.