

Department of Mathematics and Statistics  
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**Education**

Ph.D. Applied Mathematics, UMBC, Expected December 2008  
Advisor: Dr. Muruhan Rathinam

M.S. Computer Science, "Babes-Bolyai" University, Cluj-Napoca, Romania, 1996

B.S. Computer Science, "Babes-Bolyai" University, Cluj-Napoca, Romania, 1995

**Research  
interests**

Stochastic dynamics  
Numerical solutions of stochastic differential equations  
Mathematical biology  
Scientific computing

**Publications**

**Ioana Cipcigan** and Muruhan Rathinam. An interlaced time stepping method for stiff systems of Stochastic Differential Equations. *In preparation.*

**Ioana Cipcigan** and Muruhan Rathinam. Efficient Leaping Methods for Stochastic Chemical Systems. *In preparation.*

**Presentations**

An interlaced time stepping method for stiff systems of Stochastic Differential Equations, Differential Equations Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, December, 2007

Efficient Leaping Methods for Stochastic Chemical Systems, UMBC Probability and Statistics Day 2007, April 2007

A composite time stepping method for stiff systems of stochastic Differential Equations, Graduate Research Conference, University of Maryland, Baltimore County, April, 2007

An adaptive time stepping method for Stochastic Chemical Systems, Graduate Student Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, March, 2006

An Algorithmic Introduction to Numerical Simulations of Stochastic Differential Equations, Graduate Student Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, April, 2005

Barycentric Lagrange Interpolation, Graduate Student Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, October, 2004

Stochastic Simulation of Chemically Reacting Systems, Graduate Student Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, April, 2004

Image Compression using the Singular Value Decomposition, Graduate Student Seminar, Department of Mathematics and Statistics, University of Maryland, Baltimore County, November, 2003

<b>Teaching Experience</b>	Winter 2007	Math 106 – <i>Algebra and Elementary Functions</i>	Instructor
	Fall 2006	Math 115 – <i>Finite Mathematics</i>	Instructor
	Summer 2006	Math 150 – <i>Precalculus Mathematics</i>	Instructor
	Summer 2005	Math 115 – <i>Finite Mathematics</i>	Instructor
	Spring 2005	Math 151M/H – <i>Calculus and Analytic Geometry II</i>	Teaching Assistant
	Spring 2005	Math 452 – <i>Introduction to Stochastic Processes</i>	Grader
	Fall 2004	Math 151 – <i>Calculus and Analytic Geometry I</i>	Teaching Assistant
	Spring 2004	Math 152 – <i>Calculus and Analytic Geometry II</i>	Teaching Assistant
	Fall 2003	Math 404 – <i>Introduction to Partial Differential Equations</i>	Grader
	Fall 2003	Math 341 – <i>Computational Methods</i>	Grader

**Professional Memberships** AMS, AWM, SIAM

**References** Available upon request