#### MICHAEL ALEXANDER RADIN

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## **EDUCATION:**

Ph.D. Mathematics; University of Rhode Island; May 2001.

M.S. Mathematics; University of Rhode Island; May 1997

B.A. Mathematics & Geography; Rowan University, Glassboro, New Jersey; May 1995

Kingston University, England (Semester Abroad; Spring 1995 Semester)

DISSERTATION: Global Stability, Boundedness and Periodicity of Particular

Difference Equations.

### **EMPLOYMENT:**

#### Fall 2001 - Assistant Professor of Mathematics;

Rochester Institute of Technology, Department of Mathematics and Statistics.

Responsible for teaching undergraduate level courses, serving on committees, and participating in professional activities. I taught Calculus IV, Technical Calculus, Calculus I and II with bi – weekly workshops (New Calculus Pilot Program), Complex

Variables, and Introduction to Difference Equations.

In addition, I served on the Mathematics Committee, Mathematics and Statistics Club Committee. Currently serving on Public Relations Committee, Decorating Committee, Faculty recruitment committee, course coordinator and responsible for observing lectures of adjunct faculty.

#### Fall 2002 - **Test Preparation Instructor**;

Rochester Institute of Technology – Learning Development Center. Responsible for conducting training sessions that prepare students to take the SAT (Scholastic Amplitude Test) and the GMAT (Graduate Management Admission Test).

#### Summer 2001 Instructor;

<u>University of Rhode Island, Mathematics Department.</u>
Responsible for teaching LINEAR ALGEBRA during a five week summer session.

### 1995 – 2001 Graduate Teaching Assistant;

University of Rhode Island, Department of Mathematics.

Responsible for teaching undergraduate courses which included Finite Mathematics Pre – Calculus, Calculus I, and Calculus II.

### Summer 1998 Adjunct Professor;

Rowan University, Mathematics Department, Glassboro, New Jersey. Responsible for teaching CALCULUS III (Multi-Variable Calculus) during a five week summer session.

#### 2000 – 2001 Test Preparation Instructor;

<u>University of Rhode Island – Feinstein College of Continuing</u> Education Special Programs Office.

Responsible for conducting training sessions that prepare students to take the LSAT (Law School Administration Test) and the GRE (Graduate Record Examination).

#### 2000 – 2001 Home-school Tutor (Instructor);

Responsible for educating home-school students in mathematics. In addition, responsible for preparing them for the STANDARD STATE REQUIRED MATHEMATICS EXAMS and the American Mathematics Competitions Exams sponsored by the Mathematical American Association, as well as proctoring the exams too.

#### 1999 – 2001 Mathematics Tutor;

<u>Lighthouse for Youth Organization, Wakefield, Rhode Island.</u>
Responsible for tutoring high school students in various mathematics courses and helping them improve their study habits.

#### 1995 – 2001 Mathematics Tutor;

<u>University of Rhode Island Learning Assistance Network.</u>
Responsible for tutoring students in all undergraduate mathematics courses as well as helping them improve their study skills.

#### 1991 – 1994 Mathematics Tutor;

Rowan University, Tutoring Center, Glassboro, New Jersey. Responsible for tutoring students in many undergraduate mathematics courses as well as helping them improve their study skills.

# **TEACHING:**

- Introduction to Finite Mathematics
- Pre Calculus
- Applied Calculus I (Reform Calculus with a graphing calculator)
- Applied Calculus II (Reform Calculus with a graphing calculator)
- Calculus I with Analytical Geometry (Reform Calculus with Maple)
- Calculus II with Analytical Geometry (Reform Calculus with Maple)
- Multivariable Calculus
- Technical Calculus II
- Elementary Calculus I for Biology majors
- Elementary Calculus II for Biology majors
- Calculus I with bi weekly workshops; new Calculus Pilot Program
- Calculus II with bi weekly workshops; new Calculus Pilot Program
- Linear Algebra
- Complex Variables
- Introduction to Difference Equations (Created and taught the course)
- LSAT (Law School Administration Test) Preparation Course
- GRE (Graduate Record Examination) Preparation Course
- SAT (Scholastic Amplitude Test) Preparation Course
- GMAT (Graduate Management Admission Council) Preparation Course

# **RESEARCH:**

### **Publications:**

On  $x_{n+1} = max \{ 1/x_{n}, A_n/x_{n-1} \}$  with a period 3 parameter.

with E.A. Grove and G. Ladas from the University of R.I. and C.M. Kent from Virginia Commonwealth University. *Fields Institute Communications*"; Volume 29 (2001), 161 – 180.

# On the Difference Equation $x_{n+1} = a + b x_{n-1} e^{-x_n}$ .

With H. Eli-Metwally, E.A. Grove and G. Ladas from the University of Rhode Island and R. Levins from the Harvard School of Public Health. "Journal of Nonlinear Dynamics"; 47 (2001), 4623-4634.

#### On the Global Character of

y[n+1] = (py[n-1] + y[n-2])/(q+y[n-2]).

with E.A. Grove, G. Ladas and Mihaela Predescu from the University of Rhode Island. "MATHEMATICAL SCIENCE RESEARCH HOT-LINE" 5(7),(2001), 25 – 39.

# On the Global Caracter of the Difference Equation

y[n+1] = (a + b y[n-(2k+1)] + c y[n-2l])/(d + e y[n-2l])

with E.A. Grove, G. Ladas and Mihaela Predescu from the University of Rhode Island. "Journal of Difference Equations and Applications" Volume 9 (2), (2003), 171 – 199.

On the Boundedness Nature of the Positive Solutions of the Difference Equation  $x_{n+1} = \max \{ 1/x_{n}, A_{n}/x_{n-1} \}$  with Periodic Parameters. with C.M. Kent from Virginia Commonwealth University. Proceedings of the Third International DCDIS Conference; Watam Press 2003, 11 - 15.

# Organized Sessions:

# Organized a SESSION ON DYNAMICAL SYSTEMS

at the CMS (Canadian Mathematical Society) SUMMER 2002 MEETING. Laval University, Quebec City, Quebec, Canada, June 15 – 17, 2002.

#### Organized a SESSION ON DYNAMICAL SYSTEMS

and serving on the ORGANIZATIONAL COMMITTEE for the CMS (Canadian Mathematical Society) SUMMER 2003 MEETING. Edmonton, Alberta, Canada, June 14 – 16, 2003.

#### Organized a SESSION ON DYNAMICAL SYSTEMS

at the CMS (Canadian Mathematical Society) SUMMER 2004 MEETING. Halifax, Nova Scotia, Canada, June 13 – 15, 2004.

Organized a **SESSION ON DYNAMICAL SYSTEMS AND APPLICATIONS** at the CMS (Canadian Mathematical Society) WINTER 2004 MEETING. Monreal, Quebec, Canada, December 11 – 13, 2004.

### **Conference Presentations:**

On  $x_{n+1} = max \{ 1/x_{n}, A_{n}/x_{n-1} \}$  with a period 3 parameter. 947<sup>th</sup> AMS MEETING, Special Session on Difference Equations. Providence College, Providence, Rhode Island, October 2 – 3, 1999.

On  $x_{n+1} = max \{ 1/x_{n}, A_{n}/x_{n-1} \}$  with a period 3 parameter. AMS/MAA ANNUAL MEETING, Special Session on Difference Equations. Washington D.C., January 19 – 22, 2000.

On the Difference Equation  $x_{n+1} = a + b x_{n-1} e^{-x_n}$ . Festschrift in Honor of the 70<sup>th</sup> Birthday of Richard Levins. Harvard School of Public Health, Boston, Massachusetts, June 1 – 3, 2000.

On  $x_{n+1} = max \{ 1/x_{n}, A_{n}/x_{n+1} \}$  with a period 3 parameter. NORTH - EAST SECTION MEETING OF MAA (Mathematical American Association). Providence College, Providence, Rhode Island, November 17 - 18, 2000.

#### On the Difference Equation $x_{n+1} = a + b x_{n-1} e^{-x_{n}}$ .

AMS/MAA ANNUAL MEETING, Special Session on Difference Equations. New Orleans, Louisiana, January 10 – 13, 2001

# Boundedness and Periodicity Character of Solutions of a Max-Type Difference Equation.

NORTH - EAST SECTION MEETING OF MAA (Mathematical American Association). Norwich University, Northfield, Vermont, June 8 – 9, 2001.

# Applications of Difference Equations in Mathematical Biology.

11<sup>th</sup> INTERNATIONAL CONFERENCE, SOCIETY FOR CHAOS, PSYCHOLOGY, AND LIFE SCIENCES. University of Wisconsin, Madison, Wisconsin, August 3 –6, 2001.

# Boundedness and Periodicity Character of Solutions of a Max – Type Difference Equation.

SEAWAY SECTION MEETING OF MAA (Mathematical American Association). Brock University, St. Catherines, Ontario, Canada, November 2 – 3, 2001.

# Boundedness and Periodicity Character of Solutions of a Max – Type Difference Equation.

WINTER 2001 CMS (Canadian Mathematical Society) MEETING. Toronto, Ontario, Canada, December 8 – 10, 2001.

On the Global Character of y[n+1] = (py[n-1] + y[n-2k])/(q+y[n-2k]), where p and q are positive real numbers and k is a non-negative integer. AMS/MAA ANNUAL MEETING, Special Session on Difference Equations. San Diego, California, January 6-9, 2002.

# Boundedness, Periodicity and Applications of a Max – Type Difference Equation.

12<sup>th</sup> INTERNATIONAL CONFERENCE, SOCIETY FOR CHAOS, PSYCHOLOGY, AND LIFE SCIENCES. Portland State University, Portland, Oregon, August 2 – 4, 2002.

# Applications of Difference Equations in Mathematical Biology. 13th INTERNATIONAL CONFERENCE,

SOCIETY FOR CHAOS, PSYCHOLOGY, AND LIFE SCIENCES. Boston University, Boston, Massachusetts, August 8 – 10, 2003.

### Trichotomy Behavior of a Difference Equation.

2004 SIAM ANNUAL MEETING

Oregon Convention Center, Portland, Oregon, July 12 – 16, 2004.

## **Invitations:**

Oscillatory Behavior of First and Second Order Linear Difference Equations. Presentation to Department of Mathematics at Rowan University, Glassboro, New Jersey, March 1999.

<u>Difference Equations with Periodic and Eventually Periodic Solutions</u>. Presentation to the Department of Mathematics at Rowan University, Glassboro, New Jersey, October 1999.

Applications of Finite Geometric Series and Geometry
Presentation to Algebra and Geometry classes at Randolf High School,
Randolf, New Jersey, November 1999.

<u>Difference Equations with Periodic and Eventually Periodic Solutions.</u>

Presentation to the Department of Mathematics & Statistics at the University of Michigan - Dearborn, Dearborn, Michigan, February 16<sup>th</sup>, 2001.

On the Properties of the Pascal's Triangle.

Presentation to the Mathematics Department at Fitchburg State College, Fitchburg, Massachusetts, April 6<sup>th</sup>, 2001.

<u>Difference Equations with Periodic and Eventually Periodic Solutions.</u>
Presentation to the Department of Mathematics & Statistics at the Rochester Institute of Technology, Rochester, New York, June 4<sup>th</sup>, 2001.

<u>Difference Equations with Periodic and Eventually Periodic Solutions.</u>
Presentation to the Center for Imaging Science at the Rochester
Institute of Technology, Rochester, New York, September 19<sup>th</sup>, 2001

On the long term behavior of solutions of Riccatti Difference Equation. Presentation at the Curiousity Seminar at the Department of Mathematics and Statistics, Rochester Institute of Technology, September 25<sup>th</sup>, 2001.

<u>Unbounded Solutions of a Max – Type Difference Equation.</u>

Presentation to the Department of Mathematics, Difference Equations Seminar at the University of Rhode Island, Kingston, Rhode Island, November 30<sup>th</sup>, 2001.

#### Careers In Mathematics.

Presentation at the Randolf High School Career Day, Randolf, New Jersey, April 29, 2002.

<u>Unbounded Solutions of a Max – Type Difference Operator.</u>
Presentation at the Curiousity Seminar at the Department of Mathematics and Statistics, Rochester Institute of Technology, September 30<sup>th</sup>, 2003.

# **PROFESSIONAL AFFILIATIONS:**

American Mathematical Society (AMS)
Mathematical American Association (MAA)
Canadian Mathematical Society (CMS)
Society for Chaos, Psychology and Life Sciences
Pi Mu Epsilon Honorary Mathematical Society,
Vice President 1996 – 1997, University of Rhode Island Chapter.
Tau Kappa Epsilon Fraternity.

# **ACADEMIC AWARDS:**

DEAN'S LIST; Fall 1991, Spring 1992, Fall 1992, Spring 1993, Fall 1993, and Spring 1994 academic semesters.

ACADEMIC SCHOLAR AWARD in Tau Kappa Epsilon Fraternity; 1992 - 1993 and 1993 - 1994 academic years.

<u>JAMES M. SCHAFER AWARD</u> for achieving the highest grade point average among all Mathematics 1995 graduates at Rowan University.

Nominated for the **JUNIOR FACULTY TEACHING AWARD**; 2003 – 04 Academic Year at the Rochester Institute of Technology.

## **FELLOWSHIPS AND GRANTS:**

Canadian Mathematical Society Summer 2003 Travel Grant;

Awarded the Grant by the Canadian Mathematical Society to give funding for:

- Travel for my speakers that participated in my SESSION ON DYNAMICAL SYSTEMS that I organized during the Canadian Mathematical Society Summer Meeting 2003.
- Cover the registration fee of my speakers that participated in my SESSION ON DYNAMICAL SYSTEMS that I organized during the Canadian Mathematical Society Summer Meeting 2003.

#### RIT COLLEGE OF SCIENCE DEAN'S SUMMER 2002 FELLOWSHIP GRANT;

Awarded the Grant to fulfill the following goals:

- Continue to do research with my colleagues in Difference Equations during the Summer 2002.
- To organize a SPECIAL SESSION IN DYNAMICAL SYSTEMS during CMS SUMMER 2002 MEETING in Quebec City on June 15-17, 2002; to stay abreast of the progress in research in dynamical systems, establish professional contacts, and giving researchers opportunities to meet and interact.
- To give a talk at the 12<sup>th</sup> IINTERNATIONAL CONFERENCE, SOCIETY FOR CHAOS, PSYCHOLOGY, AND LIFE SCIENCES in Portland, Oregon on August 2 – 4, 2002;

Sharing the progress in my research with mathematicians, biologists, physicists, and economists and introduce future applications of Difference Equations as well.

Summer 1997 U.R.I. Coastal Fellowship; Town of Richmond, Rhode Island

GIS (Geographical Information Systems) Project. Responsible for creating a GIS database and creating a historical atlas of

Richmond, Rhode Island.

Summer 1996 U.R.I. Coastal Fellowship; City of Warwick, Rhode Island

GIS (Geographical Information Systems) Project. Responsible

for creating a GIS database of Warwick, Rhode Island.

#### **LANGUAGES:**

Russian: speak, read and write fluently.

French: speak and read.

#### **COMPUTER SKILLS:**

Maple
Mathematica
Latex
HTML

Pascal and C Programming Languages

### **PERSONAL:**

I was born in Moscow, Russia and have been living in the U.S. since I was 11 years old. I am fluent in Russian. I am also very athletic and participate in many sports such as sailing, windsurfing, rowing, swimming, cycling, and hiking. In addition, I enjoy reading books, studying history and traveling throughout the U.S. and

In addition, I enjoy reading books, studying history and traveling throughout the U.S. and the world. Furthermore, photography is also my hobby; especially landscape photography and photographing cities. I like to share all these experiences with my friends, students, and colleagues.

# **REFERENCES:**

Dr. Gerasimos Ladas Professor of Mathematics University of Rhode Island Kingston, Rhode Island 02881 (401) 874 – 5592 gladas@math.uri.edu

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