### CURRICULUM VITAE

### **Constantin Onica**

# Department of Mathematics Texas A&M University TAMU MS 3368 College Station, TX 77845-3368

Contact: (979) 845 3261 (office) (979) 862 4190 (fax) onicac@math.tamu.edu http://www.math.tamu.edu/~onicac

# Education

Ph. D. in Mathematics, Texas A&M University, 2005
M.Sc. in Mathematics, Al.I.Cuza University, Iasi, Romania, 1998
B.Sc. in Mathematics, Al.I.Cuza University, Iasi, Romania, 1997

#### Academic Appointments

Instructional Assistant Professor at Texas A&M University, 2014-present
Assistant Professor at UTRGV, 2007-2014
Postdoctoral Fellow at Indiana University, 2005-2007
Teaching Assistant at Texas A&M University, 1999-2005
Teaching Assistant at Al.I.Cuza University, Iasi, Romania, 1998-1999

### Awards and Fellowships

AUF Fellow in the Department of Mathematics, Texas A&M University, 2003-2004 AUF Fellow in the Department of Mathematics, Texas A&M University, 2002-2003 Tempus Program Scholarship (European Community) for completing the Masters Thesis research at Paris 6 University, France, March-June 1998

Award for Academic Excellence in Mathematics, Al.I. Cuza University, Iasi, Romania, 1993-1998

Undergraduate Merit Scholarship (based on GPA), Al.I. Cuza University, Iasi, Romania, 1992-1997

### Teaching Experience at Texas A&M University as Instructor

**28 sections of Math 308 Differential Equations**: Spring 2022 (2 sections, 258 students), Summer 2021 (2 sections, 108 students), Spring 2021 (2 sections, 261 students), Summer 2020 (1 section, 66 students), Spring 2020 (2 sections, 268 students), Summer 2019 (1 section, 51 students), Spring 2019 (4 sections, 219 students), Summer 2018 (1 section, 49 students), Spring 2018 (4 sections, 212 students), Summer 2017 (1 section, 80 students), Spring 2017 (4 sections, 219 students), Spring 2016 (4 sections, 220 students).

6 sections of Math 152 Engineering Mathematics II: Fall 2021 (3 sections, 279 students), Fall 2020 (3 sections, 289 students).

11 sections of Math 151 Engineering Mathematics I: Fall 2021 (1 section, 103 students), Summer 2020 (1 section, 73 students), Summer 2019 (1 section, 55 students), Fall 2017 (4 sections, 370 students), Fall 2016 (3 sections, 260 students), Fall 2015 (1 section, 104 students).

6 sections of Math 150 Functions, Trigonometry and Linear Systems: Fall 2019 (3 sections, 216 students), Fall 2018 (3 sections, 289 students).

**3 sections of Math 142 Business Calculus**: Spring 2015 (2 sections, 371 students), Summer 2016 (1 section, 32 students).

**3 sections of Math 167 Explorations in Mathematics**: Fall 2014 (2 sections, 184 students), Summer 2015 (1 section, 59 students).

**2** sections of Math 166 Topics in Contemporary Mathematics II: Fall 2015 (2 sections, 204 students).

**1 section of Math 131 Mathematical Concepts - Calculus**: Fall 2014 (1 section, 43 students).

### Other Teaching Related Activities at Texas A&M University

Week-in-review (weekly 2 hours problem solving sessions) for Math 151 (Fall 2016, Fall 2015), Math 150 (Fall 2018), Math 142 (Spring 2015), Math 131 (Fall 2014).

I selected problems from Webassign to create homework assignments for Math 150 Chapter 4 and Chapter 5 (10 sections total).

#### Service Activities at Texas A&M University

I selected the problems and wrote the solutions for these problems for the following exams as a part of the Texas A&M High School Mathematics Contest: EF Exam (Fall 2019), DE Exam (October 2018), CD Exam (October 2017), BC Exam (October 2016).

I volunteered to be a grader for the Power Team Exam as a part of the Texas A&M High School Mathematics Contest for Fall 2016-2021.

I was a member of the APT Teaching Committee between Summer 2019 and Spring 2021.

I selected graders for some undergraduate courses and UGTAs for Math 171, 172 and 221 for the following semesters: Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020.

### Teaching Experience at UTRGV as Instructor

15 sections of Precalculus: Fall 2007, Spring 2008 (2 sections), Fall 2008 (2 sections), Spring 2009, Summer 2009 (2 sections), Spring 2010 (2 sections), Summer 2011, Summer 2013 (2 sections), Summer 2014 (2 sections).

**11 sections of Calculus I**: Fall 2009, Fall 2010 (2 sections), Summer 2011, Spring 2012, Fall 2012, Spring 2013 (2 sections), Fall 2013 (2 sections), Spring 2014.

**7 sections of Calculus II**: Spring 2009, Summer 2010, Spring 2011 (2 sections), Spring 2012, Summer 2012 (2 sections).

- 3 sections of Business Algebra: Fall 2012 (2 sections), Fall 2013.
- 3 sections of Business Calculus: Fall 2011 (2 sections), Spring 2014.
- 1 section of College Algebra: Summer 2010.
- 1 section of Contemporary Mathematics: Spring 2014.
- 1 section of Calculus III: Fall 2007.
- 1 section of History of Mathematics: Spring 2011.
- 1 section of Real Analysis I: Fall 2011.
- 1 section of Analysis I (graduate course): Fall 2009.

# Teaching Experience at Indiana University as Instructor

2 sections of Brief Survey of Calculus I: Fall 2005, Fall 2006.

# Teaching Experience at Texas A&M University as Teaching Assistant

Calculus I and Calculus II: problem sessions and Maple labs.

Calculus III: problem sessions and Matlab labs, instructor for one section.

Advanced Calculus I: problem sessions.

Methods of Applied Mathematics (graduate course): problem sessions. Analysis for Applications I (graduate course): problem sessions.

### Other Teaching Related Activities at UTRGV

Completed 20-hour Challenged Based Instruction workshops sponsored by the College of Science and Engineering's UTPA-STEM Initiative, November 2011.

Helped with the design of a homework assignment system for Precalculus within **Webwork**.

Member of M.Sc. thesis committee for two students.

# **Research Publications**

- Mohammad Ahsanullah, George P. Yanev, and Constantin Onica, Characterizations of Logistic Distribution Through Order Statistics with Independent Exponential Shifts, Economic Quality Control 27 (2012), 85–96.
- Ciprian Foias, Sami Hamid, Constantin Onica, and Carl Pearcy, Operators with compact imaginary part, Indiana University Mathematics Journal 58 (2009), no. 5, 2297– 2304.
- Ciprian Foias, Sami Hamid, Constantin Onica, and Carl Pearcy, Inequalities for some positive functionals on operator algebras, Acta Scientiarum Mathematicarum (Szeged) 74(2008), 239–244.
- 4. Sami Hamid, Constantin Onica, and Carl Pearcy, *Quasidiagonality and the hyperin*variant subspace problem, Israel Journal of Mathematics 166 (2008), no. 1, 285–296.
- Constantin Onica and R. Lee Panetta, Forced Two Layer Beta-Plane Quasigeostrophic Flow, Part II: Time and space analyticity, Indiana University Mathematics Journal 56 (2007), no. 3, 1023–1045.

- Constantin Onica and R. Lee Panetta, Forced Two Layer Beta-Plane Quasigeostrophic Flow, Part I: Long-time existence and uniqueness of weak solutions, Journal of Differential Equations 226 (2006), 180–209.
- Sami Hamid, Constantin Onica, and Carl Pearcy, On the hyperinvariant subspace problem. II, Indiana University Mathematics Journal 54 (2005), no. 3, 743–754.
- Ciprian Foias, Sami Hamid, Constantin Onica, and Carl Pearcy, On the hyperinvariant subspace problem. III, Journal of Functional Analysis 222 (2005), no. 1, 129–142.

## **Research Presentations**

Applied Math Seminar, University of Texas - Pan American, (Edinburg, TX; April 2009).

Applied Math Seminar, University of Texas - Pan American, (Edinburg, TX; 2008).

2007 Joint Mathematics Meetings, (New Orleans, LA; January 2007).

Math Colloquium, University of Texas - Pan American, (Edinburg, TX; January 2007).

Minisymposium on Analysis on the Navier-Stokes Equations and Related Models, 2006 SIAM Conference on Partial Differential Equations, (Boston, MA; July 2006).

Special Session on Recent Developments on Fluid and Geophysical Fluid Dynamics, 1015th AMS Meeting, (Miami, FL; April 2006).

Math Seminar, Indiana University, (Bloomington, IN; October 2005).

Math Colloquium, Canisius College, (Buffalo, NY; April 2005).

2005 Joint Mathematics Meetings, (Atlanta, GA; January 2005).

#### Service at UTRGV

Member of organizing committee for 34th Annual Texas Differential Equations Conference, 2011.

### University Service at UTRGV

Program Review Committee, Spring 2008 - Summer 2011.

# Departmental Service at UTRGV

Precalculus Committee, Fall 2007 - Spring 2011.

Business Algebra/Business Calculus Committee, Fall 2008 - Spring 2014.

Program Assessment Committee, Fall 2008 - Spring 2011.

Library Committee, Fall 2011 - Spring 2012.

Hestec Poster Committee, Fall 2011.

Office Hour Committee, Fall 2011.

Peer Observations/Reviews of Classroom Teaching Committee, Fall 2011 - Spring 2012.

Calculus Committee, Fall 2012 - Spring 2014.

Mathematics Majors' Assessment Committee, Fall 2012 - Spring 2013.

Math Problem Solving Committee, Fall 2012 - Spring 2013.