Mihai Băileşteanu

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Employment

2014- *Assistant Professor*, Department of Mathematical Sciences, Central Connecticut State University, New Britain, CT

2011-2014 *Visiting Assistant Professor*, Department of Mathematics, University of Rochester, NY

Education

2011 PhD in in Mathematics, Cornell University (Advisor: Xiaodong Cao)

2006 BSc in Mathematics, *with honors*, Jacobs University, Bremen, Germany

Grants, honors & awards

2016 **CCSU Research Grant**, CCSU

2012 **Natural Science Professor of the Year Award**, University of Rochester

2011-2013 **AMS Simons Travel Grant**

2010 **Graduate Student Teaching Award**, Cornell University

2009 **Hutchinson Fellowship**, Cornell University

2006 **Cornell Graduate Fellowship**

2004-2006 **University President's List**, Jacobs University

2003-2006 **Merit-based scholarship**, Jacobs University

Research interests

Geometric analysis and differential geometry (geometric flows, heat kernel estimates, Harnack inequalities); geometric methods to study PDE's.

Publications

2015 *A Harnack inequality for the parabolic Allen-Cahn equation*, submitted, arXiv:1511.00197

2015 *Harnack inequalities for the curve shortening flow*, submitted, arXiv:1511.00196

2015 *Gradient estimates for the heat equation under the Ricci-Harmonic Map flow.* Adv. Geom., 15(4):445-454

2014 *Heat kernel estimates under the Ricci-Harmonic Map flow.* (with H. Tran), to appear in Proc. Edin. Math. Soc.

2012 *Bounds on the heat kernel under the Ricci flow* Proc. Amer. Math. Soc., 140:691-700

2010 *Gradient estimates for the heat equation under the Ricci flow.* (with X. Cao and A. Pulemotov) J. Funct. Anal., 258(10):3517-3542

2008 *Hausdorff dimension of exponential parameter rays and their endpoints.* (with V. Balan and D. Schleicher) Nonlinearity, 11(1):113-120

Talks

Conferences and Workshops

2016 • AMS 2016 Spring Eastern Sectional Meeting, Stony Brook, New York - Special Session on "PDE Methods in Geometric Flows"

2015 • AMS 2015 Fall Eastern Sectional Meeting, Rutgers, New Jersey - Special Session on "Geometric Analysis"

2014 • AMS 2014 Spring Southern Sectional Meeting, Greensboro, North Carolina - Special Session on "Geometric Analysis"
• 2014 Joint Mathematics Meetings, Baltimore, MD - Special Session on "Symplectic and Contact Structures on Manifolds with Special Holonomy"

2013 • MIT RTG Workshop on Optimal Transport and Applications to Differential Geometry, Lake Tahoe, Nevada
• AMS 2013 Spring Central Sectional Meeting, Ames, Iowa - Special Session on "Geometric Elliptic and Parabolic Partial Differential Equations"
• 2013 Joint Mathematics Meetings, San Diego, CA - Special Session on "Manifolds with special holonomy and generalized geometries"

2012 • AMS 2012 Fall Eastern Sectional Meeting, Rochester, NY - Special Session on "Geometric evolutions equation"
• AMS 2012 Spring Eastern Sectional Meeting, Washington, DC - Special Session on "Topics in geometric analysis and complex analysis"

2010 • AMS 2010 Fall Eastern Sectional Meeting, Syracuse, NY - Special Session on "Geometric Analysis and Flows"

Seminars

2014-2016 • Central Connecticut State University, Colloquium (three times)

2014 • James Madison University, Colloquium
• Georgia Southern University, Colloquium
• Fullerton State University, Colloquium
• University of Rochester, Geometry Seminar

2013 • University of Rochester, Geometry Seminar
• Cornell University, Analysis Seminar
• Syracuse University, Geometry Seminar

2011 • University of Rochester, Geometry Seminar
• UC Riverside, Analysis Seminar
• Cornell University, Analysis Seminar

2010 • University of Alabama at Birmingham, Geometric Analysis Seminar

General audience

2012 • *Math and Art*, University of Rochester, Renaissance Scholars Lecture

2011 • *The Poincaré Conjecture*, University of Rochester, Society for Mathematics Undergraduate Students Lecture

2009 • *The Sharkovsky theorem - or how 3 is the largest natural number*, Cornell University, Olivetti Club

Teaching Experience

Instructor

2014- *Central Connecticut State University*
- MATH 123 - Applied Business Mathematics (2 sections)
- MATH 152 - Calculus I (2 sections)
- MATH 218 - Discrete Mathematics (1 section)
- MATH 221 - Calculus II (2 sections)
- MATH 222- Calculus III (2 sections)
- MATH 226 - Linear Algebra and Probability for Engineers (3 section)
- MATH 398 - Independent Study (4 students)
- MATH 519 - Graduate Real Analysis (1 section)

2011-2014 *University of Rochester*
- Introduction to Geometry
- Introduction to Financial Mathematics
- Linear algebra with differential equations
- Calculus I, Calculus II, Calculus III
- Multivariable Calculus
- Functions of a Real Variable
- Undergraduate independent study advisor for 7 student projects

2009 *Cornell University*
- Calculus II for Engineers

Teaching Assistant

2007-2011 *Cornell University*
- Cornell Mathematics Summer 2010 REU program (geometric analysis group)
- Riemannian Geometry (graduate course), Honors Introduction to Analysis, Linear Algebra (recitation TA), Calculus II for Engineers

Outreach

2015 • Co-organizer of the CCSU Mathematics Competition - A Putnam style contest for New England university students

2015 • Campy-on-Campus - lectures for gifted middle-school students http://www.campy.org/

2011-2013 • Rochester Area Mathematics Circle (NSF supported project for middle school students): http://www.math.rochester.edu/ramc/

Service to the Department

2015 **Chair**, MATH 217 design committee

2015 **Member**, MATH 228 textbook selection committee

2015 **Member**, MATH 101 redesign committee

Service to the University

2016 - **Member**, CCSU Faculty Senate

2015 - **Member**, AAUP (American Association of University Professors) Liaison

2015 **Member**, Library Liaison

Service to the profession

Academic journal editor: Gulf Journal of Mathematics

Academic journal referee: Proceedings of the London Mathematical Society, Statistics and Probability Letters, Journal of Mathematical Analysis and Applications, Journal of Differential Equations, Abstract and Applied Analysis, Analele Stiintifice ale Universitatii "Al. I. Cuza" - Iasi, Applied Mathematics - A Journal of Chinese Universities, Asian-European Journal of Mathematics, Nonlinear Analysis Series A: Theory, Methods and Applications, Afrika Matematika, Journal of Nonlinear Evolution Equations and Applications, Electronic Journal of Differential Equations

Conferences:
Co-organizer of the Special Session on "PDE methods in geometric flows" (AMS 2016 Spring Eastern Sectional Meeting, Stony Brook, NY - March 2016)

Co-organizer of the Special Session on "Geometric evolution equations" (AMS 2012 Fall Eastern Sectional Meeting, Rochester, NY - September 2012)

Seminars: Co-organizer of the Geometry Seminar at the University of Rochester

Foreign Language Skills

Romanian	mother tongue
French	fluent
German	working knowledge
Spanish	working knowledge
Russian	basic

Last updated: August 24, 2016 • http://web.ccsu.edu/faculty/mihaib/index.html