

Curriculum Vitae

Mario Maican

Citizenship: Romanian

Education:

- Ph.D., Mathematics, August 2005, University of Notre Dame, USA
- B.S., Mathematics, June 2000, University of Bucharest, Romania
- Diploma in Mathematics, April 2000, University of Kaiserslautern, Germany

Research fields: algebraic geometry

Awards and scholarships:

- Postdoctoral Research Grant awarded by the National Council for Scientific Research, an agency of the Romanian Government, Aug. 2010–July 2012
- “BitDefender” Scholarship, Institute of Mathematics of the Romanian Academy, Feb. 2010–Aug. 2010
- Teaching Assistant Scholarship, Notre Dame University, Aug. 2000–May 2005
- “Mathematics International” Scholarship, University of Kaiserslautern, Sep. 1997–March 2000

Employment:

- Tier III Researcher, “Simion Stoilow” Institute of Mathematics of the Romanian Academy, Dec. 2015–present
- Research Assistant Professor, Center for Geometry and its Applications, Pohang University of Science and Technology, Republic of Korea, Sept. 2014–April 2015
- Researcher, “Simion Stoilow” Institute of Mathematics of the Romanian Academy, Aug. 2010–July 2012
- Postdoctoral Fellow, “Simion Stoilow” Institute of Mathematics of the Romanian Academy, Feb. 2010–July 2010
- Visiting Assistant Professor, Western Illinois University, Aug. 2008–May 2009
- Visiting Assistant Professor, University of California at Riverside, Oct. 2005–June 2008
- Teaching Assistant, University of Notre Dame, Aug. 2000–May 2005

Invited and conference talks:

- *The homology of the moduli spaces of plane sheaves of multiplicity 4 and 5*, Contributed Talk, Algebraic Varieties: Bundles, Topology, Physics (VBAC 2014), Freie Universität Berlin, 02.09.2014

- *Homology of the moduli spaces of plane sheaves of multiplicity 4 and 5*, Contributed Talk, Workshop on Instanton Counting: Moduli Spaces, Representation Theory and Integrable Systems, Lorentz Center, University of Leiden, The Netherlands, 17.06.2014
- *The homology of the moduli spaces of plane sheaves of multiplicity 4 and 5*, Algebraic Geometry Seminar, Korean Institute for Advanced Study, Seoul, Republic of Korea, 27.02.2014
- *On the geometry of the moduli space of semi-stable plane sheaves with Hilbert polynomial $6m + 3$* , The Sixth Annual International Conference on Mathematics, Statistics and Mathematics Education, Athens, Greece, 11.06.2012
- *The classification of semi-stable plane sheaves supported on quartic, quintic or sextic curves*, Algebraic Geometry Seminar, University of California at Riverside, 15.05.2012
- *The classification of semi-stable plane sheaves supported on quartic, quintic or sextic curves*, Special Event, University of California at Davis, 10.05.2012
- *On some moduli spaces of sheaves supported on plane curves*, General Mathematics Seminar of the University of Luxembourg in cooperation with the Luxembourg Mathematical Society, 22.11.2011
- *Semi-stable plane sheaves of dimension one and low multiplicity*, The Seventh Congress of Romanian Mathematicians, University of Transilvania, Braşov, 05.07.2011
- *Moduli of plane sheaves supported on curves of low multiplicity*, Contributed Talk, Moduli Spaces–Closing Conference (VBAC 2011), Isaac Newton Institute for Mathematical Sciences, Cambridge U., 28.06.2011
- *Moduli spaces of torsion sheaves of low multiplicity on the projective plane*, Workshop on Instantons and Rationality of Moduli Spaces, Freie Universität Berlin, 02.12.2010
- *Moduli spaces of torsion sheaves of low multiplicity on the projective plane*, Algebraic Geometry Seminar, University of Kaiserslautern (Germany), 18.11.2010

Seminar talks:

- *Moduli of sheaves supported on quartic space curves, Part I, Part II and Part III*, Algebraic Geometry Seminar, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, 12.04.2018, 19.04.2018 and 03.05.2018
- *On two moduli spaces of sheaves supported on quadric surfaces, Part I and Part II*, Algebraic Geometry Seminar, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, 16.02.2017 and 09.03.2017
- *On the geometry of the moduli spaces of one-dimensional sheaves*, Algebraic Geometry Seminar, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, 07.05.2015
- *On the geometry of the moduli spaces of one-dimensional sheaves*, Algebraic Geometry Seminar, Center for Geometry and its Applications, Pohang University of Science and Technology, 07.11.2014

- *Torsion semi-stable sheaves of low multiplicity on the projective plane, Part I and Part II*, Algebraic Geometry Seminar, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, 21.10.2010 and 28.10.2010
- *On the moduli spaces of one-dimensional sheaves on the projective plane*, Algebraic Geometry Seminar, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, 22.10.2009
- *Quotients modulo non-reductive groups and moduli spaces of sheaves*, Colloquium, Western Illinois University, 09.10.2008
- *Quotients modulo non-reductive groups*, Algebraic Geometry Seminar, University of California at Riverside, 06.03.2008
- *Duality for one-dimensional semi-stable sheaves on projective space*, Algebraic Geometry Seminar, University of California at Riverside, 27.11.2007
- *On some moduli spaces of semi-stable sheaves of dimension one and low multiplicity*, Algebraic Geometry Seminar, University of California at Riverside, 08.11.2007
- *On two notions of semi-stability*, Differential Geometry Seminar, University of California at Riverside, 11.05.2007
- *On some quotients modulo non-reductive groups*, Differential Geometry Seminar, University of California at Riverside, 01.12.2006
- *On vector bundles of finite order*, Differential Geometry Seminar, University of California at Riverside, 11.12.2005
- *Vector bundles of finite order on affine manifolds*, Algebraic Geometry Seminar, University of Notre Dame, 02.11.2004
- *A vanishing theorem for vector bundles of finite order*, Felix Klein Seminar, University of Notre Dame, 30.09.2004

Courses taught at Western Illinois University:

- Applied Calculus I, Fall 2008, Spring 2009
- Precalculus Algebra, Spring 2009
- Linear Algebra and Finite Mathematics, Fall 2008

Courses taught at University of California:

- First Year Calculus A, Winter 2006, Winter 2007
- First Year Calculus B, Fall 2005, Spring 2006, Winter 2007, Spring 2007, Fall 2007, Winter 2008, Spring 2008
- Several Variables Calculus A, Fall 2006
- Several Variables Calculus B, Spring 2006, Fall 2006
- Applied Matrix Algebra, Spring 2007, Winter 2008
- Linear Algebra I, Summer 2007

- Introduction to Ordinary Differential Equations, Fall 2005, Fall 2007, Spring 2008
- Introduction to Complex Variables I, Winter 2006

Courses taught at University of Notre Dame:

- Calculus I, Fall 2003
- Calculus B, Spring 2003
- Introduction to Probability Theory, Summer 2002

Workshops and conferences attended:

- Instruments of Algebraic Geometry, University of Bucharest, Romania, 11–22 Sept. 2017
- Moduli of K-Stable Varieties, Istituto Nazionale di Alta Matematica, Rome, 10–14 July 2017
- Commutative Algebra Meeting Algebraic Geometry, Conference in honour of Professor Dorin Popescu, University of Bucharest, Romania, 24–27 June 2017
- Complex Projective Geometry, Conference in honour of Professor Paltin Ionescu, University of Bucharest, Romania, 8–10 July 2016
- Moduli Spaces in Geometry, Centre International de Rencontres Mathématiques, Luminy, France, 26–30 Oct. 2015
- Interactions between Algebra, Geometry, and Topology. Conference in honour of Professor Vasile Brînzănescu, Institute of Mathematics of the Romanian Academy, Bucharest, 16–17 May 2015
- Algebraic Varieties: Bundles, Topology, Physics (VBAC 2014), Freie Universität Berlin, 1–5 Sept. 2014
- Algebraic Geometry Summer Days in Bucharest, Institute of Mathematics of the Romanian Academy, 24 June 2014
- Workshop on Instanton Counting: Moduli Spaces, Representation Theory and Integrable Systems, Lorentz Center, University of Leiden, The Netherlands, 16–20 June 2014
- Moduli spaces of real and complex varieties, Centre Henry Lebesgue, University of Angers, France, 2–6 June 2014
- Hilbert Schemes, Sheaves and Representations (VBAC 2013), Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy, 17–21 June 2013
- Geometry and Quantization of Moduli Spaces (VBAC 2012), Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona, Bellaterra, Spain, 18–22 June 2012
- The Sixth Annual International Conference on Mathematics, Statistics and Mathematics Education, Athens, Greece, 11–14 June 2012
- Colloque en hommage à Henri Poincaré, Institute of Mathematics of the Romanian Academy, Bucharest, 23 March 2012

- Topics in Moduli Theory, Instituto Superior Técnico Course in Algebraic Geometry, University of Lisbon, Portugal, 5–9 Sept. 2011
- A Celebration of Algebraic Geometry, Harvard University, Massachusetts, 25–28 Aug. 2011
- Géométrie Algébrique en Liberté XIX, Freie Universität Berlin, 18–22 July 2011
- The Franco–Romanian Workshop on Complex Geometry, Institute of Mathematics of the Romanian Academy, Bucharest, 7–9 July 2011
- The Seventh Congress of Romanian Mathematicians, University of Transilvania, Braşov, 4–5 July 2011
- Moduli Spaces–Closing Conference (VBAC 2011), Isaac Newton Institute for Mathematical Sciences, Cambridge University, 27 June–1 July 2011
- Moduli Spaces and Moduli Stacks, Columbia University, New York, 23–27 May 2011
- Workshop on Instantons and Rationality of Moduli Spaces, Freie Universität Berlin, 29 Nov.–3 Dec. 2010
- Geometry Workshop in Honour of Professor Vasile Brînzănescu, Institute of Mathematics of the Romanian Academy, Bucharest, 5–7 Nov. 2010
- Mori Theory in a Variety of Flavours, PRAGMATIC Summer School, University of Catania, Italy, 30 Aug.–18 Sep. 2010
- Joint Mathematical Meetings of the AMS and MAA, Atlanta, Jan. 2005
- Great Lakes Geometry Conference, University of Notre Dame, Indiana, 17–18 April 2004
- Complex Geometry Conference, Institut Henry Poincaré, Paris, 19–23 Jan. 2004
- Great Lakes Geometry Conference, University of Madison, Wisconsin, 1–4 May 2003
- Midwest Several Complex Variables Conference, University of Notre Dame, Indiana, 7–9 March 2003
- Summer School and Conference on Transcendental Aspects of Algebraic Cycles, Université Joseph Fourier, Grenoble, France, 18 June–6 July 2001

Languages:

- native speaker of Romanian
- fluent written and spoken English (C1; 297 out of 300 points on the TOEFL), Bulgarian (C1)
- basic knowledge of German (B2; passed the Deutsche Sprachprüfung für den Hochschulzugang ausländischen Studienbewerber)
- limited knowledge of Russian (A2)
- reading abilities in Italian and French
- programming abilities in Singular (a computer algebra system)

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