

CURRICULUM VITAE

RAREȘ RĂSDEACONU

September 10, 2019

CONTACT INFORMATION

Vanderbilt University
Mathematics Department
1326 Stevenson Center
Nashville, TN 37240

office: (+1)-615-322-3619
E-mail: rares.rasdeaconu@vanderbilt.edu
URL: <http://www.math.vanderbilt.edu/~rasdear>

EDUCATION

PhD: August 2005, Stony Brook University .
Thesis: *On the topology and differential geometry of Kähler threefolds*
Thesis Advisor: C. LeBrun
BSc: June 1997, University of Bucharest, Romania.
Thesis: *The cohomology of holomorphic line bundles on complex tori*
Thesis Advisor: V. Brînzănescu

EMPLOYMENT

Research Associate Professor of Mathematics, Vanderbilt University 08/16/2018 - present
Assistant Professor (NTT), Vanderbilt University 08/16/2010-08/15/2018
Postdoctoral fellow, Hebrew University, Jerusalem 10/01/2008-08/14/2010
Scientific mentor: J. Solomon
Postdoctoral fellow, IRMA, Université Louis Pasteur, Strasbourg 09/01/2006-08/31/2008
Scientific mentors: V. Kharlamov and J. -Y. Welschinger

Visiting positions

IRMA (Strasbourg) 06/30/2019-07/07/2019
MFO (Oberwolfach), Research in Pairs Program 06/16/2019-06/29/2019
IRMA (Strasbourg) 08/07/2017-08/15/2017
IRMA (Strasbourg) 06/04/2015-06/18/2015
EPFL (Lausanne) 06/01/2014-06/06/2014
Institute des Hautes Études Scientifique (Bures-sur-Yvette) 05/15/2014-05/31/2014
IRMA (Strasbourg) 07/01/2013-07/08/2013
Institute des Hautes Études Scientifique (Bures-sur-Yvette) 05/15/2013-07/01/2013
University of Michigan (Ann Arbor) 01/01/2006-04/30/2006
IMADA, Univ. of Southern Denmark (Odense) 09/01/2005-12/31/2005

HONORS AND AWARDS

- Shanks Workshop Award, Vanderbilt University 2019-2020
- NSF DMS - 1804586 (co-PI) 2018-2020
- Shanks Workshop Award, Vanderbilt University 2017-2018
- NSF DMS - 1711567 (PI) 2017-2019
- Shanks Workshop Award, Vanderbilt University 2016-2017
- Simons Foundation Collaboration Grant, award number: #281266 (PI) 2013-2018
- Teaching Fellowship of the Learning Communities Program, SUNY at Stony Brook 1999
- Team Award in Math Quiz 2000, a research level interactive competition

organized by the Centre de Recerca Matemàtica, Barcelona as part of the
World Mathematics Year activities.
- Departmental Fellowship Award, SUNY at Stony Brook

2000
2004

RESEARCH

Research Interest

Primary: Differential Geometry, Algebraic Geometry
Secondary: Differential Topology, Symplectic Geometry

Publications

Articles in peer-reviewed journals

- I. Chiose, R. Răsdeaconu, I. Şuvaina, *Balanced metrics on uniruled threefolds*,
Communications in Analysis and Geometry, Vol. 27, No. 2 (2019), pp. 329–355;
arXiv: 1408.4769 [math.DG].
- V. Kharlamov, R. Răsdeaconu, *Qualitative aspects of counting real rational curves on real K3 surfaces*,
Geometry & Topology 21 (2017) 585–601; arXiv:1506.03050 [math.AG].
- R. Răsdeaconu, I. Şuvaina, *ALE Ricci-flat Kähler surfaces and weighted projective spaces*,
Ann. Glob. Anal. Geom., 47 (2015), no. 2, 117–134; arXiv:1301.4727 [math.DG].
all authors contributed equally.
- V. Kharlamov, R. Răsdeaconu, *Counting real rational curves on K3 surfaces*,
IMRN 2015, no. 14, 5436–5455; arXiv:1311.7621 [math.AG].
- M. Ishida, R. Răsdeaconu, I. Şuvaina, *On normalized Ricci flow and smooth structures on
four-manifolds with $b^+ = 1$* ,
Arch. Math. (Basel) 92 (2009), no. 4.; arXiv:0810.2465 [math.DG].
- R. Răsdeaconu, I. Şuvaina, *Smooth structures and Einstein metrics on $\mathbb{C}P^2 \# 5, 6, 7\overline{\mathbb{C}P^2}$* ,
Math. Proc. Cambridge Philos. Soc. 147 (2009), no. 2; arXiv:0806.1424 [math.DG].
- R. Răsdeaconu, *On the Kodaira dimension of diffeomorphic Kähler threefolds*,
Proc. Amer. Math. Soc. 134 (2006), no. 12; arXiv:math/0411139 [math.DG].

Unrefereed Conference Proceedings

- R. Răsdeaconu, J. Solomon, *Relative open Gromov-Witten invariants*,
Oberwolfach Reports, "Real enumerative questions in complex and tropical geometry",
Editors: G. Mikhalkin, E. Shustin, J. Walcher, J.-Y. Welschinger, Volume 8, issue 2, 2011.

Preprints

- H. J. Hein, R. Răsdeaconu, I. Şuvaina *On the classification of ALE Kähler manifolds*,
arXiv:1610.05239 [math.DG].
- I. Chiose, R. Răsdeaconu, I. Şuvaina, *Balanced manifolds and SKT metrics*,
arXiv:1608.08721 [math.CV].
- R. Răsdeaconu, *On rationally connected threefolds*,
available at <http://www.math.vanderbilt.edu/~rasdear/weakratcon.pdf>

Research Grants

- NSF Conference Award DMS - 1804586, co-PI (PI I. Suvaina) 12/01/2017 - 11/30/2018
- Shanks workshop award, Vanderbilt University 07/31/2017 - 05/31/2018
- NSF Conference Award DMS - 1711567, PI 04/15/2017 - 03/31/2019
- Shanks workshop award, Vanderbilt University 07/31/2016 - 05/31/2017
- Simons Foundation Collaboration Grant (Award Number: 281266), PI 09/01/2013 - 08/31/2018

Invited Talks

| | | |
|--|--------|------|
| - AMS Sectional Meeting, <i>Special Session on Geometry and Topology of Singularities</i> , University of Wisconsin, Madison, USA | Fall | 2019 |
| - "Séminaire Géométrie et Applications" , IRMA, Strasbourg, France | Summer | 2019 |
| - "Differential Geometry Seminar" , UC Irvine, Irvine, USA | Spring | 2018 |
| - AMS Sectional Meeting, <i>Special Session on Recent Progress and New Directions in Homotopy Theory</i> , Vanderbilt University, Nashville, USA | Spring | 2018 |
| - "PDE Seminar" , Vanderbilt University, Nashville, USA | Fall | 2017 |
| - "Séminaire Géométrie et Applications" , IRMA, Strasbourg, France | Summer | 2017 |
| - "Geometric Analysis Seminar" - CUNY, New York, USA | Fall | 2016 |
| - "Geometry Seminar" , Vanderbilt University, Nashville, USA | Fall | 2016 |
| - "Topology and Group Theory Seminar" , Vanderbilt University, Nashville, USA | Fall | 2015 |
| - The VIIIth Congress of Romanian Mathematicians, Braşov, Romania | Summer | 2015 |
| - "Séminaire Géométrie et Applications" , IRMA, Strasbourg, France | Summer | 2015 |
| - "Subfactors Seminar" , Vanderbilt University, Nashville, USA | Spring | 2015 |
| - "Moduli spaces of real and complex varieties" Conference, Angers, France | Summer | 2014 |
| - "Geometry Seminar" , Vanderbilt University, Nashville, USA | Fall | 2014 |
| - Symplectix - IHP, Paris, France | Spring | 2014 |
| - University of Wisconsin-Madison, Madison, USA | Spring | 2014 |
| - "Topology and Group Theory Seminar" , Vanderbilt University, Nashville, USA | Fall | 2013 |
| - "Séminaire Géométrie Algébrique" , Université Lille 1, France | Spring | 2013 |
| - "Séminaire Géométrie et Applications" , IRMA, Strasbourg, France | Spring | 2013 |
| - "Geometry Seminar" , Vanderbilt University, Nashville, USA | Spring | 2013 |
| - "Geometry and Topology" , Conference, Lehigh University, Bethlehem, USA | Spring | 2012 |
| - "Symplectic and Differential Geometry Seminar" , Vanderbilt University, Nashville, USA | Spring | 2012 |
| - Kansas State University, Manhattan, USA | Fall | 2011 |
| - The VIIth Congress of Romanian Mathematicians, Braşov, Romania | Summer | 2011 |
| - "Real enumerative questions in complex and tropical geometry" , Workshop, Oberwolfach, Germany | Spring | 2011 |
| - Special lecture, Kansas State University, Manhattan, USA | Fall | 2010 |
| - "Topology and Group Theory Seminar" , Vanderbilt University, Nashville, USA | Spring | 2010 |
| - Tel Aviv University, Tel Aviv, Israel | Spring | 2010 |
| - "Tropical Structures in Geometry and Physics" , Workshop, MSRI, Berkeley, USA | Fall | 2009 |
| - Tel Aviv University, Tel Aviv, Israel | Fall | 2008 |
| - "Symplectic and Real Algebraic Geometry" , Summer School, École Polytechnique, Paris, France | Spring | 2008 |
| - LMU, University of Munich, Munich, Germany | Spring | 2008 |
| - IRMA, Université Louis Pasteur, Strasbourg, France | Spring | 2008 |
| - "Tropical and symplectic aspects of real geometry" , Workshop, EPFL Lausanne, Switzerland | Spring | 2008 |
| - University of Zürich, Zürich, Switzerland | Spring | 2008 |
| - IRMA, Université Louis Pasteur, Strasbourg, France | Fall | 2006 |
| - University of Michigan, Ann Arbor, USA | Spring | 2006 |
| - Humboldt Institut für Matematik, Berlin, Germany | Fall | 2005 |
| - Århus University, Århus, Denmark | Fall | 2005 |
| - IMADA, Univ. of Southern Denmark, Odense, Denmark | Fall | 2005 |