

CURRICULUM VITAE

RAREȘ RĂSDEACONU

September 22, 2017

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>

EMPLOYMENT

Assistant Professor (NTT), Vanderbilt University	08/15/2010 - present
Postdoctoral position, Hebrew University, Jerusalem	10/01/2008-08/14/2010
Postdoctoral position, IRMA, Université Louis Pasteur, Strasbourg	09/01/2006-08/31/2008
Research Assistantship, SUNY at Stony Brook	09/01/2002-08/31/2005
Teaching Assistantship, SUNY at Stony Brook	09/01/1997-08/31/2002

Visiting positions

EPFL (Lausanne)	06/1/2014-06/06/2014
Institute des Hautes Études Scientifique (Bures-sur-Yvette)	05/15/2014-05/31/2014
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

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

RESEARCH INTEREST

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

PUBLICATIONS

Articles in peer-reviewed journals

- I. Chiose, R. Răşdeaconu, I. Şuvaina, *Balanced metrics on uniruled threefolds*, to appear in **Communications in Analysis and Geometry**; arXiv: 1408.4769 [math.DG].
- V. Kharlamov, R. Răşdeaconu, *Qualitative aspects of counting real rational curves on real K3 surfaces*, **Geometry & Topology** 21 (2017) 585–601; arXiv:1506.03050 [math.AG].
- R. Răşdeaconu, 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].

- V. Kharlamov, R. Răşdeaconu, *Counting real rational curves on K3 surfaces*, **IMRN** 2015, no. 14, 5436–5455; arXiv:1311.7621 [math.AG].
- M. Ishida, R. Răşdeaconu, 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. Răşdeaconu, I. Şuvaina, *Smooth structures and Einstein metrics on $\mathbb{CP}^2 \# 5, 6, 7\overline{\mathbb{CP}^2}$* , **Math. Proc. Cambridge Philos. Soc.** 147 (2009), no. 2; arXiv:0806.1424 [math.DG].
- R. Răşdeaconu, *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. Răşdeaconu, 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. Răşdeaconu, I. Şuvaina *On the classification of ALE Kähler manifolds*, arXiv:1610.05239 [math.DG].
- I. Chiose, R. Răşdeaconu, I. Şuvaina, *Balanced manifolds and SKT metrics*, arXiv:1608.08721 [math.CV]
- R. Răşdeaconu, *On rationally connected threefolds*, available at <http://www.math.vanderbilt.edu/~rasdear/weakratcon.pdf>

Working papers

- R. Răşdeaconu, *Real stable pairs invariants*.
- R. Răşdeaconu, I. Şuvaina, *Scalar flat Kähler metrics on ALE Kähler surfaces*.
- R. Răşdeaconu, I. Şuvaina, *Smoothings of cscK surfaces with cyclic quotient singularities*.
- M. Lejmi, R. Răşdeaconu, I. Şuvaina, *Constant scalar curvature almost-Kähler 4-manifolds*.
- V. Kharlamov, R. Răşdeaconu, *Counting real rational curves in non-primitive classes on K3 surfaces*.
- R. Răşdeaconu, J. Solomon, *Relative open Gromov-Witten invariants*.
- R. Răşdeaconu, J.Y. Welschinger, *The asymptotic behavior of Welschinger invariants*.

AWARDS

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|---|----------------|
| - Shanks workshop award, Vanderbilt University | 2017-2018 |
| - NSF Conference Award DMS - 1711567 | 2017-2018 |
| - Shanks workshop award, Vanderbilt University | 2016-2017 |
| - Simons Foundation Collaboration Grant (Award Number: 281266) | 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. | 2000 |
| - Departmental Fellowship Award, SUNY at Stony Brook | 2004 |
| - Member of the Mathematics Institute of the Romanian Academy | 2006 - present |

INVITED TALKS

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| - "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 <i>VIIIth</i> 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 <i>VIIth</i> 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 Mathematik, Berlin, Germany	Fall	2005
- Århus University, Århus, Denmark	Fall	2005
- IMADA, Univ. of Southern Denmark, Odense, Denmark	Fall	2005

SYNERGISTIC ACTIVITIES

Organizer of Shanks Workshops and Conferences

- Co-organizer of AMS Special Session on Advances in Hermitian Geometry, Vanderbilt University,	Apr 14-15, 2018
- Co-organizer of the Shanks Workshop "Complex Geometry", Vanderbilt University,	Mar 2 - 3, 2018
- Main organizer of the Shanks Workshop "The Topology of Real Algebraic Varieties: Deterministic and Random Aspects", Vanderbilt University,	Mar 11-12, 2017
- Co-organizer of the conference "Recent Advances in Kähler Geometry" in conjunction to the 30 th annual Shanks Lecture, Vanderbilt University	May 18-22, 2015
- Co-organizer of the Shanks Workshop "Kähler Metrics on the Edge", Vanderbilt University,	Apr 18-22, 2013
- Co-organizer of the Shanks Workshop "Kähler and Differential Geometry", Vanderbilt University,	Sep 25-26, 2010

Academic Service

- Co-organizer of the "Geometry Seminar", Vanderbilt University 2013 - present
- Hosted and supported the visits of Prof. V. Kharlamov (IRMA Strasbourg, France) at Vanderbilt University 2015, 2016, 2017
- Hosted and supported speakers at the "Geometry Seminar", Vanderbilt University 2017
- Reviewer for Zentralblatt Math
- Served as anonymous referee for several journals

Outreach Activities

- Lecturer at the "Math Circle" at Vanderbilt University Fall 2015, 2016