

# Liz R. Vivas

## Personal Information

---

Citizenship: Peruvian  
Date of Birth: July 6, 1983

## Research Interests

---

Several Complex Variables, Holomorphic Dynamics, Complex Geometry, CR Geometry

## Experience and Education

---

Assistant Professor, The Ohio State University, Columbus OH  
August 2014-

Postdoctoral Researcher, Universidad Federal Fluminense, Brazil  
January 2013 - July 2014

Visiting Scholar, Institute Henri Poincaré, Paris  
September 2012 - December 2012.

Golomb Assistant Professor of Mathematics, Purdue University  
August 2009 - May 2012.

Ph.D. in Mathematics, University of Michigan, May 2009  
Advisor: Berit Stensønes

M. Sci. in Mathematics, IMPA, Brazil, 2004  
Advisor: Cesar Camacho

## Publications

---

*A polynomial skew-product with a wandering Fatou-disk.* Submitted. With Han Peters.  
<http://arxiv.org/abs/1405.1340>

*Dynamics of Two-Resonant Biholomorphisms.* With Jasmin Raissy.  
**Math. Res. Lett.**, Vol. 20, 2013, no. 4, pp. 757–771.

*Geodesics in the space of Kähler metrics.* With László Lempert.  
**Duke Math. J.**, Vol. 162, 2013, no. 7, pp. 1369–1381.

*Basins of attraction of automorphisms in  $\mathbb{C}^3$ .* With Berit Stensønes.  
**Ergodic Theory Dynam. Systems.** Vol. 34, 2014, no. 2, pp. 689–692.

*Bounding the rank of positive hermitian forms and rigidity for CR mappings of hyperquadrics.* With Jiri Lebl and Dusty Grundmeier.  
**Math. Ann.** Vol. 358, 2014, no. 3–4, pp. 1059–1089.

*Degenerate characteristic directions for maps tangent to the identity.*

**Indiana Univ. Math. J.**, Vol. 61, 2012, no. 6, pp. 2019–2040.

*Fatou-Bieberbach domains as basins of attraction of automorphisms tangent to the identity.*

**J. Geom. Anal.**, Vol. 22, 2012, no. 2, pp. 352–382.

*Fatou-Bieberbach domains associated to maps tangent to the identity,*

Ph.D. Thesis: University of Michigan.

*Remarks on automorphisms of  $\mathbb{C}^* \times \mathbb{C}^*$  and their basins.*

**Complex Var. Elliptic Equ.**, Vol. 54, 2009, no. 3–4, pp. 401–407.

*Attracting Basins of Volume Preserving Automorphisms of  $\mathbb{C}^k$ .* With Han Peters and Erlend Fornaess Wold.

**Internat. J. Math.**, Vol. 19 (7), 2008, no. 7, pp. 801–810.

---

## Awards

AMS Travel Support for the First Joint Meeting AMS and SOMACHI, Chile, December 2010.

University of Michigan Department of Mathematics Departmental Scholarship, Fall, Winter 2007 and Winter 2008.

University of Michigan Rackham Graduate School Graduate Student Research Grant.

Fellowship for summer school. Instituto Nacional de Matematica pura e aplicada (IMPA), Rio de Janeiro, Brazil. (January, February 1998, 2000, 2001)

Silver medal in 39th International Mathematical Olympiad, Taiwan (1998).

Several medals in math Olympiads in Latin America, including a perfect score gold medal in the South American Olympiad of Mathematics in Brazil (1997).

---

## Invited Talks

Analysis Seminar, Norwegian University of Science and Technology, Trondheim, Norway, June 2014.

2013 CMS Winter Meeting, Ottawa, December 2013.

Workshop on the Complex Structure of Attracting Sets at Lorentz Center, Leiden, November 2013.

Seminario de Analise Complexo, Universidad Federal de Minas Gerais, Minas Gerais, November 2013.

Seminario de Folheacoes, IMPA, Rio de Janeiro, September 2013.

Seminario de Dinamica, Universidad Federal Fluminense, Niteroi, April 2013.

Analysis Seminar, McGill University, Montreal, February 2013.

Workshop Complex Analysis, University of Amsterdam, December 2012.

Complex Analysis Seminar, Universite de Toulouse, November 2012.

International Conference on Nevanlinna Theory and Complex Geometry, March 2012.

Complex Analysis and Geometry Seminar, Rutgers University, November 2011.

Several Complex Variables Seminar, University of Michigan, Ann Arbor, October 2011.

Complex Analysis Seminar, University of Vienna, Austria, May 2011.

AMS Meeting, Complex Analysis and Dynamical Systems session, South Bend, IN, November 2010.

Complex Analysis Seminar, University of Washington at Seattle, WA, October 2010.

Dynamical Systems Seminar, University of Amsterdam, Holland, May 2010.

Workshop on Holomorphic Maps and Iterations, University of Michigan, MI, March 2010.

Workshop in Complex Analysis and Geometry, Albi, France, January 2010.

Complex Analysis Seminar, Indiana University, IN, January 2010.

Geometrical Analysis Seminar, Purdue University, IN, March 2009.

AMS central sectional meeting, UIUC, March 2009.

---

### **Selected Conferences Attended**

AIM Workshop on The Cauchy-Riemann equations in several variables, Palo Alto, June 2014.

2013 CMS Winter Meeting, Ottawa, December 2013.

Workshop on the Complex Structure of Attracting Sets at Lorentz Center, Leiden, November 2013.

Conference in Conformal and Kähler Geometry, IHP, Paris, September 2012.

International Conference on Nevanlinna Theory and Complex Geometry, University of Notre Dame, March 2012.

Sixth Workshop on Geometric Analysis of PDEs and Several Complex Variables, Serra Negra, Brazil, August 2011.

Frontiers in Complex Dynamics, Celebrating John Milnor's 80th birthday, BIRS, Canada, March 2011.

CIRM Komplex Analysis Winterschool/Workshop and Applications, Luminy, France, January 2011.

AIM Workshop on Emerging applications of complexity for CR mappings, Palo Alto, September 2010.

Nordan meeting, Gothenburg, Sweden, May 2010.

Winter school in Complex Analysis and Geometry, Albi, France, January 2010.

IAS/Park City Mathematics Institute (PCMI) 2008 Summer Session, Park City, Utah, July 2008.

Special Semester in Several Complex Variables, Mittag-Leffler Institute, Sweden, Spring 2008.

---

### **Teaching Experience**

#### *Professor:*

Mini-course on Complex Dynamics at IMCA - Instituto de Matematicas y Ciencias Afines, August 2013.

Math 301 - Introduction to Proofs through Real Analysis, Purdue University, Winter and Fall 2011.

Math 265 - Linear Algebra, Purdue University, Winter 2011.

Math 362 - Topic in Multivariable Calculus, Purdue University, Fall 2010 and Winter 2012.

Math 262 - Ordinary Differential Equations and Linear Algebra, Purdue University, Fall 2010 and Fall 2011.

Math 366 - Ordinary Differential Equations, Purdue University, Winter 2010.

Math 266 - Ordinary Differential Equations, Purdue University, Fall 2009.

#### *Instructor:*

Calculus II, University of Michigan, Fall 2008 and Winter 2006.

Calculus I, University of Michigan, Winter 2005 and Fall 2005.

Precalculus, University of Michigan, Fall 2004.

#### *Teaching Assistant:*

Calculus IV, University of Michigan, Fall 2006.

#### *Math Olympiads:*

Trainer of the Peruvian Team for International Mathematical Olympiads, 1999-2001.

---

### **Service**

Co-organizer of the Midwest SCV Meeting at Purdue University, October 2009.

Co-organizer of the Geometric Analysis Seminar, Purdue University, since January 2010.

Council member and organizer of seminars for the Purdue Postdoctoral Association, since October 2010.