

CURRICULUM VITAE

Bruno Rodrigues Santiago

Adjoint Professor
Department of Analysis
Institute of Mathematics and Statistics
Federal Fluminense University

1) Personal Information

Date of birth: 17/09/1988

Place of Birth: Niterói-RJ-Brazil

Web page: www.professores.uff.br/brunosantiago

e-mail: brunosantiago@id.uff.br

Professional address: Rua Professor Marcos Waldemar de Freitas Reis, s/n, Bloco G
Gabinete 72, 4º andar, Campus do Gragoatá,
São Domingos - Niterói - RJ - CEP: 24.210-201

2) Academic Education

PhD in Mathematics

August 2011 to August 2015

Federal University of Rio de Janeiro (UFRJ)

Advisor: Alexander Arbieto

Co-advisor: Christian Bonatti (Université de Bourgogne-France)

Sandwich period: Université de Bourgogne (Dijon-France)

November 2013 to March 2014

Supervisor: Christian Bonatti

Title of the thesis: Commuting vector fields and generic dynamics

Jury: Alexander Arbieto (advisor), Christian Bonatti (co-advisor), Maria José Pacífico (UFRJ), Katrin Gelfert (UFRJ), Lorenzo Diaz (PUC-Rio) and Alejandro Koscsard (UFF).

Master in Mathematics

August 2009 to August 2011

Federal University of Rio de Janeiro (UFRJ)

Advisor: Alexander Arbieto

Title of Dissertation: Essential hyperbolicity on surfaces

Jury: Alexander Arbieto (advisor), Maria José Pacífico (UFRJ) and Jairo Bochi (PUC-Rio)

Undergraduate in Mathematics

January 2006 to July 2010

Federal University of Rio de Janeiro (UFRJ)

3) Pos-doc

2016-2017

Université de Bourgogne (Dijon-France)
Bourse Post-doctorale Marco Brunella

2015-2016

Instituto Nacional de Matemática Pura e Aplicada (IMPA)
Grant of CAPES

4) Visiting Professor**2017**

March 13th to March 30th
Pontifica Univerisidade Catolica do Rio de Janeiro (PUC-Rio de Janeiro)
Invited by Lorenzo Diaz

2016

November 28th to December 15th
Universidad de La Republica (Montevideo-Uruguay)
Invited by Rafael Potrie

2016

November 1st to November 4th
Pontifica Univerisidade Catolica do Rio de Janeiro (PUC-Rio de Janeiro)
Invited by Lorenzo Diaz

5) Complementary Education**Federal Fluminense University (UFF)**

Differential Topology – Summer Course 2008
Instructor: Leonardo de Carvalho

Federal Fluminense University (UFF)

Real Analysis – Summer Course 2010
Instructor: Leonardo de Carvalho

6) Per-review

2016 Journal: Discrete and Continuous Dynamical Systems
2016 Journal: Ergodic Theory and Dynamical Systems

7) Publications

1. SANTIAGO, B; Dirac physical measures for generic diffeomorphisms. *To appear in Dynamical Systems.*

2. BONATTI, C.; SANTIAGO, B; Existence of common zeros for commuting vector fields on 3-manifolds. *Annales de L'institut Fourier*, 67, n° 04 (2017) p. 1741-1781.
3. ARBIETO, A ; JUNQUEIRA, A ; SANTIAGO, B . On Weakly Hyperbolic Iterated Function Systems. *Sociedade Brasileira de Matematica. Boletim, Nova Serie*, (2017) 48 n°01 111-1140
4. ARBIETO, A. ; MORALES, C. A. ; SANTIAGO, B. . On Araujo's Theorem for Flows. *Journal of Dynamical and Control Systems*, v. 22, p. 55-69, 2016.
5. ARBIETO, ALEXANDER ; CATALAN, THIAGO ; SANTIAGO, BRUNO . Mixing-like properties for some generic and robust dynamics. *Nonlinearity (Bristol. Print)*, v. 28, p. 4103-4115, 2015.
6. ARBIETO, A. ; MORALES, C. A. ; SANTIAGO, B. . Lyapunov stability and sectional-hyperbolicity for higher-dimensional flows. *Mathematische Annalen*, v. 361, p. 67-75, 2014.

8) Preprints

1. SANTIAGO, B; The semicontinuity lemma. Permanent preprint, available in http://www.im.ufrj.br/~bruno_santiago/Semicontinuity.pdf
2. ALVAREZ, S. ;BONATTI, C. and SANTIAGO, B. Existence of common zeros for commuting vector fields II. Solving global difficulties. Available in <https://arxiv.org/pdf/1710.06743.pdf>

9) Articles in Preparation

1. GUARINO, P; GUIHENEUF, P.-A. and SANTIAGO, B *Dirac physical measures for generic diffeomorphisms II. (working title)*
2. GUARINO, P and SANTIAGO, B *Dirac physical measures and homoclinic tangencies. (working title)*
3. BONATTI, C; DA LUZ, A; SANTIAGO, B; *Generic bi-Lyapunov stable chain recurrence classes for flows.*
4. ALVAREZ, S; BONATTI, C; SANTIAGO, B; *Dynamics of smooth \mathbb{R}^2 -actions on three manifolds.*
5. CORREA, J; OBATA, D; SANTIAGO, B; *Expansiveness, entropy and centralizers of flows.*

10) Book

1. ARBIETO, A; SODERO, T; SANTIAGO, B; Fluxos Estrela. Publicações Matemáticas, IMPA. 28° Colóquio Brasileiro de Matemática.

11) Teaching

Exercise Classes Real Analysis (Master in Mathematics UFRJ) 2014

Exercise Classes Differential Geometry (Undergraduate in Mathematics UFRJ) 2012

Exercise Classes Calculus I (Undergraduate in Engineering UFRJ) 2010

Professor in the Pré-Vestibular Social do Governo do Estado do Rio de Janeiro (CEDERJ)

Social Program intended to prepare students for university admission exams

Unidade São João de Meriti Ano 2008

Professor in the Pré-Vestibular Social do Governo do Estado do Rio de Janeiro (CEDERJ)

Social Program intended to prepare students for university admission exams

Unidade Niterói Ano 2009

12) Talks

1. Dynamical Systems Seminar, Montevideo. Title: *Approximation of ergodic invariant measures by horseshoes in the partially hyperbolic scenario*. December 2017
2. Dynamical Systems Seminar, Montevideo. Title: *Centralizers of chaotic flows*. December 2016
3. Journée de l'Équipe de Géométrie et Systèmes Dynamiques, IMB (Dijon) Title: *Existence de zéros communs pour les champs de vecteurs qui commutent en dimension 3*. November 2016
4. Groupe de Travail de Théorie Ergodique et Systèmes Dynamiques, Université de Paris-Sud (Orsay). Title: *Existence de zéros communs pour les champs de vecteurs qui commutent en dimension 3*. November 2016
5. EDAI, 4 de novembro (PUC-Rio). Title: *Dinâmicas Morse-Smale e existência de zeros comuns para campos que comutam em dimensão três*. November 2016
6. Séminaire de Géométrie et Systèmes Dynamiques, Université de Bourgogne (Dijon) Title: *Centralisateurs des flots expansifs*. September 2016
7. Seminário de Sistemas Dinâmicos, Universidade Federal Fluminense (UFF). Title: *Generic bi-Lyapunov stable chain recurrence classes for flows*. July 2016
8. Seminário de Teoria Ergódica, Universidade Federal do Rio de Janeiro (UFRJ). Title: *Centralizadores de fluxos expansivos*. June 2016
9. Workshop for young researchers: groups acting on manifolds (Teresópolis). Title: *Measurable partitions, conditional measures and disintegration*. June 2016
10. Séminaire Étudiants, Université de Bourgogne (Dijon). Title: *Les flots d'Anosov ont un centralisateur trivial*. May 2016
11. Encontro Mineiro de Sistemas Dinâmicos, Universidade Federal de Uberlândia (UFU). Title: *Propriedades tipo mixing para dinâmicas robustas e genéricas*. November 2015
12. Seminário de Sistemas Dinâmicos, Universidade Federal Fluminense (UFF). Title: *Existence of common zeros for commuting vector fields on three manifolds*. September 2015
13. Seminário de Sistemas Dinâmicos, Universidade de São Paulo (USP). Title: *Sobre a existência de zeros comuns para campos que comutam*. June 2015
14. Workshop de Topologia e Dinâmica, Universidade Federal Fluminense (UFF). Title: *Sobre a existência de zeros comuns para campos que comutam*. February 2015
15. 28º Colóquio Brasileiro de Matemática, Curso Avançado: *Fluxos Estrela*. July 2011

13) Conferences

1. International Conference on Dynamical Systems. Búzios, July 2016
2. Workshop for young researchers: groups acting on manifolds. Teresópolis. July 2016

3. IV Encontro Mineiro de Sistemas Dinâmicos. Universidade Federal de Uberlândia. November 2015
4. School and Conference on Dynamical Systems. Trieste-Italy. August 2015
5. Workshop de Topologia e Dinâmica. Universidade Federal Fluminense (UFF). Niterói. February 2015
6. III Brazilian School on Dynamical Systems. Bento Gonçalves. October 2014
7. A week on Dynamical Systems at IM-UFRJ. Universidade Federal do Rio de Janeiro (UFRJ). Janeiro 2013.
8. International Conference Beyond Uniform Hyperbolicity. Bedlewo-Polônia. May 2013.
9. ICTP-ESF School and Conference in Dynamical Systems. Trieste-Itály. May 2012.
10. II Brazilian School on Dynamical Systems. ICMC-USP, São Carlos. October 2012
11. Montevideo Dynamical Systems Conference. August 2012.
12. 28º Colóquio Brasileiro de Matemática July 2011
13. Workshop on Dynamical Systems. Salvador. November 2011.

14) Organization of Events

Encontro de Jovens Dinamicistas (Meeting of young dynamicists of Rio de Janeiro). November 2014 to November 2015

Co-organized with Sebastien Alvarez, Davi Obata and Carolina Puppó.

Colóquio do IME (An internal seminar of the Institute of Mathematics and Statistics of Federal Fluminense University. Web page: <https://coloquioimeuff.wixsite.com/math>)

15) Languages

Portuguese, native language

English and French, good working knowledge