

CURRICULUM VITAE

ALEJANDRO KOCSARD

PERSONAL DETAILS

Full name: Alejandro Kocsard
Date of birth: September 16th, 1978
Place of birth: Rosario, Argentina
Citizenship: Argentine & Hungarian
Permanent residence: Brazil

CONTACT

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<http://www.professores.uff.br/kocsard>

EDUCATION

- 3/2011–8/2011 **Postdoc:** Université Paris VI, IMJ-PRG, Paris, France.
Adviser: Prof. Patrice Le Calvez.
- 8/2007–8/2008 **Postdoc:** Instituto Nacional de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, Brazil.
Adviser: Prof. Enrique R. Pujals.
- 3/2003–5/2007 **Doutor em Matemática (Ph.D.):** Instituto Nacional de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, Brazil.
Thesis title: *Toward the classification of cohomology-free vector fields.*
Adviser: Prof. Welington de Melo.
- 3/1997–8/2002 **Licenciado em Matemática:** Universidad Nacional de Rosario, Rosario, Argentina.

POSITIONS

- Since 8/2008 **Assistant Professor:** Instituto de Matemática e Estatística, Universidade Federal Fluminense, Brazil.
- 3/2003–7/2007 **Teacher Assistant:** IMPA, Brazil.

3/2002–7/2002 **Teacher Assistant:** Facultad de Ciencias Exactas, Ingeniería y Agrimensura, Universidad Nacional de Rosario, Argentina.

FELLOWSHIPS AND GRANTS

Since 11/2015 FAPERJ - Jovem Cientista do Nosso Estado
Since 3/2011 CNPq Produtividade em Pesquisa (research fellowship)
3/2011–8/2011 CAPES fellowship for postdoc.
4/2009–4/2010 Auxílio de Instalação, FAPERJ.
8/2007–8/2008 CNPq fellowship for postdoc.
3/2003–2/2005 CNPq scholarship for Ph.D.
1/1994–12/1999 Bernardo A. Houssay scholarship for high school students.

AWARDS

05/2009 Prêmio CAPES de Tese 2008 (best mathematical Ph.D. thesis of Brazil in 2007).
03/2005–02/2007 Bolsa FAPERJ Nota 10 (special scholarship for PhD students).
11/1997 Second Prize in the Paenza Mathematical Contest (Argentina).
07/1996 Bronze Medal, International Mathematical Olympiad (India).

PUBLICATIONS

1. P. Berger, A. Kocsard, *Structural stability of the inverse limit of endomorphisms*, accepted in *Annales de l'Institut Henri Poincaré - Analyse Non Linéaire* (2015).
2. A. Kocsard, G. Ovando, S. Reggiani, *On first integrals of the geodesic flow on Heisenberg nilmanifolds*, *Differential Geometry and its Applications*, v. **49** (2016), 496–509.
3. A. Kocsard, R. Potrie, *Livšic theorem for low-dimensional diffeomorphism cocycles*, *Commentarii Mathematici Helvetici*, v. **91** (2016), 39–64.
4. L. Backes, A. Kocsard, *Cohomology of dominated diffeomorphism-valued cocycles over hyperbolic systems*, *Ergodic Theory & Dynamical Systems*, v. **36** (2016), 1703–1722.

5. A. Avila, B. Fayad, A. Kocsard, *On manifolds supporting distributionally uniquely ergodic diffeomorphisms*, Journal of Differential Geometry, v. **99** (2015), 191–213.
6. A. Kocsard, *On cohomological C^0 -(in)stability*, Bulletin of the Brazilian Mathematical Society, v. **44** (2013), 489–495.
7. A. Avila, A. Kocsard, *Cohomological equations and invariant distributions for minimal circle diffeomorphisms*, Duke Math. Journal, v. **158** (2011), 501–536.
8. A. Kocsard and A. Koropecki, *A mixing-like property and inexistence of invariant foliations for minimal diffeomorphisms of the 2-torus*, Proceedings of the AMS, v. **137** (2009), 3379–3386.
9. A. Kocsard, *Cohomologically rigid vector fields: the Katok conjecture in dimension 3*, Annales de l’Institut Henri Poincaré - Analyse non Linéaire, v. **26** (2009), 1165–1182
10. A. Kocsard and A. Koropecki, *Free curves and periodic points for torus homeomorphisms*, Ergodic Theory & Dynamical Systems, v. **28** (2008), 1895–1915.

PREPRINTS

1. A. Kocsard, *On the dynamics of minimal homeomorphisms of T^2 which are not pseudo-rotations* submitted, available at <https://arxiv.org/pdf/1611.03784v1> (2016)
2. A. Avila, A. Kocsard, *Invariant distributions for higher dimensional quasi-periodic diffeomorphisms*, in preparation.

INVITED TALKS (CONFERENCES)

1. *On the dynamics of minimal homeomorphisms of T^2* . Surfaces in Luminy, Luminy, France. October, 2016.
2. *On the dynamics of minimal homeomorphisms of T^2* . International Conference on Dynamical Systems. Búzios, Brazil. July, 2016.
3. *Cocycles over hyperbolic dynamical systems*. Workshop for young researchers: groups acting on manifolds, Teresópolis, Brazil. May, 2016.
4. *Rotation theory of torus homeomorphisms*. Mini-course joint with A. Koropecki at the conference Global dynamics beyond uniform hyperbolicity, Olmué, Chile. September, 2015.
5. *Invariant pseudo-foliations for minimal homeomorphisms in dimension 2*. School and Conference on Dynamical Systems, Trieste, Italy. July, 2015.
6. *Homeomorfismos do 2-toro sem pontos periódicos: o problema dos desvios rotacionais*. Dias Dinâmicos Paulistas, São Paulo, Brazil. March, 2015.

7. *Cociclos sobre dinâmicas hiperbólicas*. IV Encontro Mineiro de Sistemas Dinâmicos, Uberlândia, Brazil. February, 2015.
8. *On the concept of stability in cohomological dynamics*. First Mathematical Congress of the Americas, Guanajuato, Mexico. August 2013.
9. *Livisic theorem for diffeomorphism cocycles*. Second Palis-Balzan International Symposium on Dynamical Systems. Paris, France, 2013.
10. *Distribuciones invariantes y sistemas distribucionalmente únicamente ergódicos*. XXX Coloquio de la Sociedad Matemática Peruana, Lima, Perú. December, 2012.
11. *Distributionally uniquely ergodic systems*. IV Congreso Latinoamericano de Matemáticos, Córdoba, Argentina. August 2012.
12. *Distributionally uniquely ergodic diffeomorphisms*. First Palis-Balzan Symposium on Dynamical Systems, IMPA, Rio de Janeiro, Brasil. June, 2012.
13. *Distributionally uniquely ergodic diffeomorphisms*. School and Conference in Dynamical Systems, ICTP, Trieste, Italy. May 2012.
14. *Cohomological Equations in Dynamics*. Workshop in Topology and Dynamics, Tehran, Iran. February, 2012.
15. *Pseudo-rotações irracionais*. IV Workshop de Dinâmica Conservativa. UFMG, Belo Horizonte, Brazil. February, 2011.
16. *Estruturas Hölder e dinâmica hiperbólica em superfícies*. Workshop Topologia & Dinâmica. UFF, Brazil. February, 2011.
17. *Hyperbolicity vs. Topological Hyperbolicity in dimension 2*. Bicentennial Workshop on Dynamical Systems. San Pedro de Atacama, Chile. May, 2010.
18. *On the smooth cohomology of low-dimensional quasi-periodic diffeomorphisms*. International Conference on Dynamical Systems, Celebrating the 70th anniversary of Jacob Palis. Búzios, Brazil. February, 2010.
19. *On the smooth cohomology of quasi-periodic diffeomorphisms*. Periodic Approximation in Dynamics. Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy. January, 2010.
20. *Bilhares exteriores no plano hiperbólico e difeomorfismos do círculo*. Workshop de Topologia & Dinâmica. UFF, Brazil. January, 2010.
21. *On the smooth cohomology of low dimensional quasi-periodic diffeomorphisms*. Advances in low dimensional dynamics. Stony Brook University, USA. June, 2009.
22. *Cohomological equations and invariant distributions for quasi-periodic diffeomorphisms*. Dynamics in dimension two. Pucon, Chile. April, 2009.
23. *First cohomology group and invariant distributions*. Dynamics and Applications in honor of Mauricio Peixoto and David Rand. Universidade do Minho, Portugal. September, 2008.

24. *Cohomologically rigid vector fields: the Katok conjecture in dimension 3.* AMS/SBM First Joint Meeting. IMPA, Brazil. July, 2008.
 25. *Introduction to the Cohomological Theory of Dynamical Systems.* Jornadas de Sistemas Dinámicos. PUC del Norte, Chile. December, 2007.
 26. *Rigidez Cohomológica: La conjetura de Katok en dimensión 3.* LVII Reunión Anual de la Unión Matemática Argentina. U. Nacional de Córdoba, Argentina. September, 2007.
 27. *Cohomologically rigid vector fields: the Katok conjecture in dimension 3.* Foliations, Topology and Geometry in Rio. PUC-Rio, Brazil. July, 2007.
 28. *Free curves and periodic points for torus homeomorphisms.* International Symposium of Dynamical Systems. Salvador de Bahia, Brazil. October, 2006.
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ORGANIZED EVENTS

- Conference *New Trends in Onedimensional Dynamics, celebrating the 70th birthday of Welington de Melo.* Rio de Janeiro, Brazil. November 14-18, 2016.
 - *Workshop for young researchers on groups acting on manifolds.* Teresópolis, Brazil. June 20-24, 2016
 - Conference *Surfaces in Sao Paulo.* São Sebastião, Brazil. April 7-11, 2014.
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LANGUAGES

- Spanish: native language
- Portuguese: fluently
- English: fluently
- French: intermediate