

UNIVERSIDADE FEDERAL FLUMINENSE  
DEPARTAMENTO DE ANÁLISE  
PROF.: JAVIER RIBÓN HERGUEDAS

## **Curriculum vitae**

### **1 Personal data**

Name: Javier Ribón

Date of birth: 11/08/1974 (August 11th of 1974)

Gender: Male

Country of residence: Brazil

Nationality: Spain

Affiliation: Professor in Universidade Federal Fluminense, Niterói, Brazil.

Grade: Professor Associado.

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### **2 Academic career**

1. Graduation studies in Universidad de Valladolid, Spain (1992-1997)
2. Ph.D. in Universidad de Valladolid, Spain (2001)  
Ph. D. dissertation: *Difeomorfismos de  $(\mathbb{C}^2, 0)$  tangentes a la identidad que preservan la fibracion de Hopf*  
Thesis advisor: Dominique Cerveau
3. Post-doctoral fellowship in UCLA, Los Angeles (2002-2004)  
Agency: MEC (Ministry of education and science of Spain)

4. Post-doctoral fellowship in IMPA (2005)  
Agency: MEC (Ministry of education and science of Spain)
  
5. Post-doctoral fellowship in IMPA (2006-2007)  
Agency: CNPq (Brasil)
  
6. Professor in Universidade Federal Fluminense (2007-)

### **3 Scientific production**

#### **3.1 Published Papers**

1. *Difféomorphismes de  $(\mathbb{C}^2, 0)$  tangents à l'identité qui préservent la fibration de Hopf*  
C.R. Acad. Sci. Paris Sér. I Math. 332 (2001), 1011-1014
  
2. *Holomorphic extensions of formal objects*  
Annali Scuola Normale Superiore Pisa Classe Scienza. 3 (2004), 657-680
  
3. *Families of diffeomorphisms without periodic curves*  
The Michigan Mathematical Journal. 53 (2005), 243-256
  
4. *Modulus of analytic classification for unfoldings of resonant diffeomorphisms*  
Moscow Mathematical Journal. Volume 8 Series 2 (2008), 1-77
  
5. *Formal classification of unipotent parametrized diffeomorphisms*  
Ergodic Theory & Dynamical Systems. Volume 8 Series 4 (2008), 1323-1365
  
6. *Unfoldings of tangent to the identity diffeomorphisms*  
Astérisque. Volume 323 (2009), 325-370
  
7. *Non-embeddability of general unipotent diffeomorphisms up to formal conjugacy*  
Annales de l'Institut Fourier. Volume 59 Series 3 (2009), 951-975
  
8. *Topological classification of families of diffeomorphisms without small divisors*  
Memoirs of the American Mathematical Society. Volume 207 Series 975 (2010)
  
9. *Extension of formal conjugations between diffeomorphisms*  
Bull. Braz. Math. Soc. (N.S.) 43 (2012), no. 2, 247-283
  
10. *Embedding smooth and formal diffeomorphisms through the Jordan-Chevalley decomposition*  
J. Differential Equations 253 (2012), no. 12, 3211-3231

11. *Derived length of solvable groups of local diffeomorphisms*  
Ribón, Javier; Martelo, M; Mathematische Annalen, v. 358, p. 701-728, 2014.
12. *Fixed points for nilpotent actions on the plane and the Cartwright-Littlewood theorem*  
Firmo, S.; Ribón, J; Velasco, J.  
Mathematische Zeitschrift. , v.279, p.849 - 877, 2014, doi=10.1007/s00209-014-1396-1
13. *Fixed points of nilpotent actions on  $\mathbb{S}^2$*   
Ergodic Theory and Dynamical Systems. , v.36, p.173 - 197, 2016.
14. *Recurrent orbits of subgroups of local complex analytic diffeomorphisms*  
Mathematische Zeitschrift. , v.285, p.519 - 548, 2017.
15. *Finite orbits for nilpotent actions on the torus*  
Firmo, S.; Ribón, Javier  
Proceedings of the American Mathematical Society, v.146, p.195 - 208, 2017.
16. *Finite dimensional groups of local diffeomorphisms*  
Israel Journal of Mathematics, v. 227, p. 289-329, 2018.

### 3.2 Accepted Papers

1. *The solvable length of groups of local diffeomorphisms*  
Journal für die reine und angewandte Mathematik (Crelles Journal) (2016)
2. *Fixed points of nilpotent actions on  $\mathbb{R}^2$*   
Firmo, S.; Le Calvez, P.; Ribón, Javier  
Asterisque, 2018 (Volume in honor of Jean Cristophe Yoccoz).
3. *Topological rigidity of unfoldings of resonant diffeomorphisms*  
Annales de l'Institut Fourier (2018).

### 3.3 Preprints

1. *Multisummability of unfoldings of tangent to the identity diffeomorphisms* (2011)
2. *Global fixed points for nilpotent actions on the torus* (2017)
3. *Stable manifolds of two-dimensional biholomorphisms asymptotic to formal curve* (2017)
4. *Analytic Moduli of Plane Branches and Holomorphic Flows* (2018)
5. *Boundness of intersection numbers for actions by two-dimensional biholomorphisms* (2018)
6. *On the automorphism group of foliations with geometric transverse structure* (2018)

### **3.4 Chapters in books**

1. *Algebraic properties of groups of complex analytic local diffeomorphisms*  
In *VIII Escuela Doctoral Intercontinental de Matemáticas PUCP-UVA 2015*  
Editors: Francisco Ugarte and Nuria Corral  
Pontifica Universidad Católica de Perú, 2015

## **4 Students**

### **4.1 Masters degree students (concluded)**

1. Student: Joel Samuel Mendoza Pari.  
Title: Hyperbolic structures on a closed oriented surface  
Date: april 2011
2. Student: Lucivania Lisboa.  
Title: Folheações holomorfas no plano projetivo  $\mathbb{CP}^2$  e o Problema de Poincaré  
Date: august 2014
3. Student: Francisco Miguel Zamora Inuma.  
Title: Sobre a Fibra do Mapa de Baum-Bott em Folheações de Grau dois em  $\mathbb{CP}^2$   
Advisor: Gabriel Calsamiglia; Co-advisor: Javier Ribón  
Date: 2015

### **4.2 Ph.D. students (concluded)**

1. Student: Jaime Velasco Câmara da Silva.  
Title: Fixed point of nilpotent actions on the plane and the theorem of Cartwright - Littlewood  
Date: December 2012  
Advisor: Sebastião Firmo. Co-advisor: Javier Ribón.

### **4.3 Ph.D. students (in progress)**

1. Student: Lucivania Lisboa.  
Title: Local biholomorphisms with finite orbits

## 5 Participations in events and congresses

### 5.1 Recent talks in congresses (since 2012)

1. Plenary talk in XXX Coloquio de la Sociedad Matemática Peruana  
Talk: *Topological rigidity of resonant diffeomorphisms*  
December 2012, Pucp, Lima, Perú.
2. Mini-course in XXX Coloquio de la Sociedad Matemática Peruana  
Title: *Algebraic properties of groups of diffeomorphisms*  
December 2012, Pucp, Lima, Perú.
3. Workshop of Topology & Dynamics 2012  
Talk: *Dynamical limits of discrete dynamics*  
February 2012, UFF, Niterói, Brasil.
4. Workshop of Topology & Dynamics 2013  
Talk: *Real analytic classification of local holomorphic diffeomorphisms*  
February 2013, UFF, Niterói, Brasil.
5. Geometry & Dynamics (Satellite congress of MCA2013)  
Talk: *Real analytic classification of local holomorphic diffeomorphisms*  
July 2013, Instituto de Matemática de la UNAM, administrative unit of Cuernavaca, Cuernavaca, México.
6. Mathematical Congress of the Americas 2013  
Talk: *Topological rigidity of unfoldings of resonant diffeomorphisms*  
Special session in holomorphic dynamics, august 2013, Guanajuato, Mexico.
7. Surfaces in São Paulo  
Talk: *Rotational properties of nilpotent groups of diffeomorphisms of surfaces*  
7 - 11 April, 2014, São Sebastião, Brazil
8. XXI Encuentro de topología  
Talk: *Grupos nilpotentes de difeomorfismos de superficies y propiedades rotacionales*  
3 - 4 october, 2014, Tordesillas, Valladolid, Spain.
9. Réunion du projet ANR LAMBDA: Pseudogroupes de difféomorphismes holomorphes (Congress)  
Talk: *The solvable length of groups of local diffeomorphisms*  
January 2015, Toulouse, France
10. First joint meeting Brazil Spain in Mathematics, (Congress)  
Talk: *Algebraic theory of groups of local diffeomorphisms*  
December 2015, Fortaleza, Brazil

11. CIMPA school "Grupos de Transformaciones y Sistemas Dinámicos"  
 I lectured a course with Lorena López-Hernanz  
 Title: *Algebraic properties of groups of complex analytic local diffeomorphisms*  
 June 2015, PUCP, Lima, Perú
12. Geometry of Singularities and Differential Equations (Congress)  
 Talk: *Intersections in holomorphic dynamical systems*  
 June 26th-30th, 2017, Universidad de Cantabria, Santander, Spain
13. Coloquio Brasileiro de Matemática (Congress)  
 Talk: *Intersections in holomorphic dynamical systems*  
 July 2017, IMPA, Rio de Janeiro, Brazil.
14. Holomorphic foliations in Alsace (Congress)  
 Talk: *Completely integrable vector fields*  
 October 2017, Université de Strasbourg, France.
15. Complex foliations, dynamics and geometry (Congress)  
 Talk: *The role of Puiseux characteristics in the local Poincaré problem*  
 July 2018, Universidade Federal Fluminense, Niterói, Brazil.
16. III Congreso Internacional de Geometría y Dinámica Compleja (Congress)  
 Talk: *The role of Puiseux characteristics in the local Poincaré problem*  
 September 2018, Pontifica Universidad Católica del Perú, Lima.

## 5.2 Organization of events

1. Workshop de topología e dinâmica (Congress)  
 Organizing Committee: Firmo, S. ; Ribón, Javier  
 17 - 21 february, 2014, Universidade Federal Fluminense, Niterói, Brazil
2. Workshop em Teoria Algébrica de Singularidades (Congress)  
 Scientific Committee: Abramo Hefez, Israel Vaisencher, Javier Ribón, Jorge Vitório Pereira, Farid Tari  
 27 - 29 january, 2014, Universidade Federal Fluminense, Niterói, Brazil
3. Geometry of Singularities and Differential Equations (Congress)  
 Organizing committee: Alonso, C.; Corral, N.; Fortuny, P.; López-Hernanz, L.; Ravara, M.; Ribón, Javier; Sanz, F.  
 June 26th-30th, 2017, Universidad de Cantabria, Santander, Spain
4. XXI Brazilian Topology Meeting (Satellite Congress of ICM2018)  
 Member of the organizing committee  
 August 12th-18th, 2018, Universidade Federal Fluminense, Niterói, Brazil

5. Workshop of topology and dynamics (Congress)  
 Scientific committee: Kocsard, A.; Pujals, E.; Tal, F.; Ribón, Javier; Schweitzer, P.; Potrie, R.  
 February 19th-21th, 2018, Universidade Federal Fluminense, Niterói, Brazil
6. Complex foliations, dynamics and geometry (Congress)  
 Local committee: Falla, M.; Licanic, S.; Ribón, Javier; Nikdelan, Y.  
 July 23th-27th, Niterói, Rio de Janeiro, Brazil

### **5.3 Participation in PhD jurys**

1. Participation in PhD jury of Mitchael Martelo  
 Title: Grupos de germes de difeomorfismos complexos em várias variáveis e formas diferenciais  
 Universidade Federal de Rio de Janeiro, 2010  
 Thesis advisor: Scardua, B.  
 Jury: Scardua, B.; Morales, C.; Ribón, J.; Camara, L.; Canille, J.
2. Participation in PhD jury of Jaime Velasco Câmara da Silva  
 Title: Pontos fixos para ações nilpotentes no plano e o teorema de Cartwright - Littlewood  
 Universidade Federal Fluminense, 2012  
 Thesis advisor: Firmino, S.  
 Co-advisor: Ribón, Javier  
 Jury: Firmino, S.; Ribón, Javier; Zanata, S.; Koropecki, A.; Carneiro, M. J. D.
3. Participation in PhD jury of Mauro Benayon  
 Title: Sobre grupos abelianos irrotacionais de homeomorfismos do toro  
 Universidade Federal Fluminense, 2013  
 Thesis advisor: Koropecki, A.  
 Jury: Koropecki, A.; Zanata, S.; Firmino, S.; Ribón, Javier; Tal, F.
4. Participation in PhD jury of Sergio Carrillo Torres  
 Title: Monomial summability through Borel-Laplace transforms with applications to differential equations  
 Universidad de Valladolid, 2016  
 Thesis advisor: Mozo, J.  
 Jury: Ribón, J.; Schafke, R.; Sanz, J.; Aroca, J. M.
5. Participation in PhD jury of Danúbia Junca Cuzzuol  
 Title: Campos de vetores tangentes a folheações holomorfas de codimensão 1  
 Universidade Federal de Minas Gerais, 2016  
 Thesis advisor: Mol, R.  
 Jury: Mol, R.; Soares, M.; Costa, G.; Ravara, M.; Ribón, Javier

## **5.4 Participation in juries for positions of permanent professor**

1. Jury for three positions of “Professor Adjunto” in Mathematics  
Universidade Federal Fluminense, 2010
2. Jury for one position of “Professor Adjunto” in Mathematics  
Universidade Federal Fluminense, 2016

Niterói, october 30th 2018.

Javier Ribón Herguedas