Rodrigo G. **Schaefer**

Ph.D student in Applied Math

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Research interests

Arnold Diffusion

Current research

- Arnold diffusion using scattering maps in an a priori unstable Hamiltonian system.

Celestial Mechanics

- N-body problem on surfaces

Education

Ph.D in Applied Mathematics
UPC (Universitat Politècnica de Catalunya)

Barcelona, Spain
Sep. 2014 - PRESENT

- Advisor: Amadeu Delshams
- Got a CNPq Scholarship (Brazil).

M.S. in Mathematics
UFRJ (Universidade Federal do Rio de Janeiro)

Rio de Janeiro, Brazil
Mar. 2012 - May 2014

- Master's thesis: A dinâmica de N corpos sobre superfícies : um exemplo para 2 corpos
- Advisor: Stefanella Boatto
- Got a FAPERJ - Scholarship which is given to the two best students in Master program - Dept. of Math

B.S. in Mathematics
UFRJ (Universidade Federal do Rio de Janeiro)

Rio de Janeiro, Brazil
Mar. 2008 - Jan 2012

Publications

Arnold diffusion for a complete family of perturbations
Delshams, A. and Schaefer, R.G.

2017

- Regular and Chaotic Dynamics

N-body dynamics on closed surfaces: the axioms of mechanics
Boatto, S., Dritschel, D.G. and Schaefer, R.G.

2016

- Proceedings of the Royal Society of London A: Mathematical, Physical and Engineering Science

Preprint

Arnold diffusion for a complete family of perturbations with two independent harmonics
Delshams, A. and Schaefer, R.G.

2017

- ArXiv

Work experience

Fixed-term Teacher
UFRJ (Federal University of Rio de Janeiro)

Rio de Janeiro, Brazil
Mar. 2014 - Aug. 2014

- Differential and Integral Calculus
- Linear Algebra

Monitor Student *Rio de Janeiro, Brazil*
UFRJ (Federal University of Rio de Janeiro) *2009 - 2011*

- Linear Algebra

Presentation

IV Congreso de Jóvenes Investigadores-Real Sociedad Matemática Española *Valencia, Spain*
Global Instability in Hamiltonian Systems *2017*

Satellite Dynamics and Space Missions: Theory and Applications of Celestial Mechanics *San Martino al Cimino, Italy*
Arnold Diffusion for several examples using Scattering maps (poster) *2017*

Llavefest: A Broad Pperpective on Finite and Infinite Dimensional Dynamicsl Systems *Barcelona, Spain*
Arnold Diffusion for several examples using Scattering maps (poster) *2017*

14th Winter School of the Spanish Dance Network *Vigo, Spain*
Arnold Diffusion for several examples using Scattering map (poster) *2017*

Barcelona UB-UPC DSG Seminar *Barcelona, Spain*
Global instability in Hamiltonian Systems and several Scattering maps *2016*

13th Winter School of the Spanish Dance Network *Seville, Spain*
Arnold dffusion using several combinations of Scattering maps (poster) *2016*

14th Workshop on interactions between Dynamical Systems and PDE's. *Barcelona, Spain*
Arnold dffusion using several combinations of Scattering maps (poster) *2016*

JuniorGesta *Barcelona, Spain*
Global instability in Hamiltonian Systems *2016*

II BGSMath Junior Meeting *Barcelona, Spain*
Global instability in Hamiltonian Systems *2016*

CNMAC - Congresso Nacional de Matemática Aplicada e Computacional *Águas de Lindóia, Brazil*
Propagação de um impulso elétrico em um axônio nervoso (poster) *2012*

Research Group and Networks

Laboratory of Geometry and Dynamical Systems *Barcelona*
Member *2017 - Present*

- Group of researchers in Dynamical Systems and Symplectic geometry of Universitat Politècnica de Catalunya

UPC Dynamical System Group *Barcelona*
Member *2014 - Present*

- Group of researchers in Dynamical Systems of Universitat Politècnica de Catalunya

DANCE *Spain*
Member *2016-Present*
- Network of spanish reseachers in Dynamical Systems

Others Courses

Introduction to Python *Barcelona*
Centre de Recerca Matamàtica *2015*

R Programming *Coursera*
Johns Hopkins University *2016*

Getting and Cleaning Data *Coursera*
Johns Hopkins University *2016*

Languages

Portuguese	Native Fluent
English	Intermediate
Spanish	Advanced
Catalan	Intermediate

Programming Languages

Python	Intermediate
LaTeX	Intermediate
R	Basic

Congresses and conferences attended

Finite Dimensional Integrable Systems in Geometry and Mathematical Physics *Barcelona, Spain*
Universitat Politècnica de Catalunya *2017*

15th Workshop on interactions between Dynamical Systems and PDE's *Barcelona, Spain*
Universitat Politècnica de Catalunya *2017*

Winter School in Conservative Dynamics *Engelberg, Switzerland*
ETH Institute for Theoretical Studies *2017*

DDays *Salou, Spain*
Dance-net *2016*

13th Workshop on interactions between Dynamical Systems and PDE's *Barcelona, Spain*
Universitat Politècnica de Catalunya *2015*

Global Dynamics in Hamiltonian Systems *Vall de Núria, Spain*
Universitat Politècnica de Catalunya *2015*

Winter School : Recents Trends in Nonlinear Sciences *Valladolid, Spain*
Universidad de Valladolid and Dance-net *2015*

Barcelona Mathematical Days. *Barcelona, Spain*

Societat Catalana de Matemàtiques *2014*

DDAYS. *Badajoz, Spain*

Dance-net *2014*

Hamiltonian Dynamics, Non-Autonomous System and Patterns in PDE's. *Nizhny Novgorod, Russia*

Lobachevsky State University of Nizhni Novgorod *2014*

Shilnikov Workshop. *Nizhny Novgorod, Russia*

Lobachevsky State University of Nizhni Novgorod *2014*