

Rodrigo G. Schaefer

POSTDOKTOR IN MATHEMATICS

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Research interests

Arnold Diffusion

CURRENT RESEARCH

- Arnold diffusion in an *a priori unstable* Hamiltonian system.

Celestial Mechanics

- N-body problem on surfaces

Education

Ph.D in Applied Mathematics

UNIVERSITAT POLITÈCNICA DE CATALUNYA

Barcelona, Spain

Sep. 2014 - Jul. 2018

- Title: Global Instability in Hamiltonian Systems
- Advisor: Amadeu Delshams
- Qualification: Excellent *cum laude* (The highest qualification possible in Spain)
- Got a CNPq Scholarship (Brazil).

M.S. in Mathematics

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 with two independent harmonics

2018

DELSHAMS, A. AND SCHAEFER, R.G.

- Discrete and Continuous Dynamical Systems - A

Arnold diffusion for a complete family of perturbations

2017

DELSHAMS, A. AND SCHAEFER, R.G.

- Regular and Chaotic Dynamics

N-body dynamics on closed surfaces: the axioms of mechanics

2016

BOATTO, S., DRITSCHEL, D.G. AND SCHAEFER, R.G.

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

Work experience

Postdoktor

Uppsala, Sweden

UPPSALA UNIVERSITET

Aug. 2019- current

- Practical sessions in: Calculus of Several Variables

Solutions Assistant (Junior Consultant)

EVERIS - AN NTT DATA COMPANY

Consulting in ETL - Extraction, Transformation and Load of data in a database

Temporary lecturer

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO

- Differential and Integral Calculus
- Linear Algebra

Teaching assistant

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO

- Practical sessions in: Linear Algebra

Barcelona, Spain

Mar. 2019- Jul. 2019

Rio de Janeiro, Brazil

Mar. 2014 - Aug. 2014

Rio de Janeiro, Brazil

2009 - 2011

Presentation

INVITED TALKS

Congreso Biental de la Real Sociedad Matemática Española

ARNOLD DIFFUSION FOR A HAMILTONIAN WITH $3 + 1/2$ DEGREES OF FREEDOM

Santander, Spain

2019

Geometry, Dynamics, Integrable Systems

SCATTERING MAPS AND GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS

Moscow, Russia

2018

IV Congreso de Jóvenes Investigadores-Real Sociedad Matemática Española

GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS

Valencia, Spain

2017

JuniorGesta

GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS

Barcelona, Spain

2016

OTHER PRESENTATIONS

DDAYS 2018

GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS

Murcia, Spain

2018

Hamsys2018

GLOBAL INSTABILITY FOR 'COMPLETE' FAMILIES OF PERTURBATIONS WITH TWO OR THREE INDEPENDENT HARMONICS

Bellaterra, Spain

2018

Satellite Dynamics and Space Missions: Theory and Applications of Celestial Mechanics

ARNOLD DIFFUSION FOR SEVERAL EXAMPLES USING SCATTERING MAPS (POSTER)

San Martino al Cimino, Italy

2017

Llavefest: A Broad Pperpective on Finite and Infinite Dimensional Dynamicsl Systems

ARNOLD DIFFUSION FOR SEVERAL EXAMPLES USING SCATTERING MAPS (POSTER)

Barcelona, Spain

2017

14th Winter School of the Spanish Dance Network

ARNOLD DIFFUSION FOR SEVERAL EXAMPLES USING SCATTERING MAP (POSTER)

Vigo, Spain

2017

Barcelona UB-UPC DSG Seminar

GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS AND SEVERAL SCATTERING MAPS

Barcelona, Spain

2016

13th Winter School of the Spanish Dance Network

ARNOLD DIFFUSION USING SEVERAL COMBINATIONS OF SCATTERING MAPS (POSTER)

Seville, Spain

2016

14th Workshop on interactions between Dynamical Systems and PDE's.

ARNOLD DIFFUSION USING SEVERAL COMBINATIONS OF SCATTERING MAPS (POSTER)

Barcelona, Spain

2016

II BGSMath Junior Meeting

GLOBAL INSTABILITY IN HAMILTONIAN SYSTEMS

Barcelona, Spain

2016

CNMAC - Congresso Nacional de Matemática Aplicada e Computacional

PROPAGAÇÃO DE UM IMPULSO ELÉTRICO EM UM AXÔNIO NERVOSO (POSTER)

Águas de Lindóia, Brazil

2012

Research Group and Networks

Capa (Computer-Aided Proof in Analysis)

MEMBER

Uppsala

2019 - present

Laboratory of Geometry and Dynamical Systems

MEMBER

Barcelona

2017 - 2019

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

UPC Dynamical Systems Group

MEMBER

Barcelona

2014 - 2018

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

DANCE-Net

MEMBER

Spain

2016-2018

- Network of spanish reseachers in Dynamical Systems

Participation in funded projects

Sistemes dinàmics de la UPC - 2017SGR1049

MEMBER

Barcelona

2017 - 2019

- Funded by Catalan Science Department / Leading researcher: Tere Martinez-Seara

Dinámica Asociada a Conexiones entre Objetos Invariantes con Aplicaciones a Neurociencia y Astrodinámica

MEMBER

Barcelona

2016 - 2018

- Funded by Ministerio de Economía y Competitividad (Spain) / Leading researcher: Tere Martinez-Seara

Sistemes dinàmics de la UPC - 2014SGR504

MEMBER

Barcelona

2015-2016

- Funded by Catalan Science Department / Leading researcher: Tere Martinez-Seara

Dinámica Asociada a Conexiones entre Objetos Invariantes, Aplicaciones a Astrodinámica, Neurociencia y Otros Campos

MEMBER

Barcelona

2014 - 2015

- Funded by Ministerio de Economía y Competitividad (Spain) / Leading researcher: Amadeu Delshams

Other Courses

SQL y PL/SQL

EVERIS

Barcelona

2019

Introduction to Data Science in Python

UNIVERSITY OF MICHIGAN

Coursera

2019

R Programming

JOHNS HOPKINS UNIVERSITY

Coursera

2016

Getting and Cleaning Data

JOHNS HOPKINS UNIVERSITY

Coursera

2016

Introduction to Python

CENTRE DE RECERCA MATEMÀTICA

Barcelona

2015

Languages

Portuguese

Native Fluent

English

Interm./Adv.

Spanish

Advanced

Catalan

Intermediate

Programming Languages

Python

Intermediate

LaTeX

Intermediate

R

Basic

SQL

Basic

References

Amadeu Delshams

PROFESSOR AT UNIVERSITAT POLITÈCNICA DE CATALUNYA

amadeu.delshams@upc.edu

Stefanella Boatto

ASSOCIATE PROFESSOR AT UNIVERSIDADE FEDERAL DO RIO DE JANEIRO

stefanella.boatto@matematica.ufri.br

Marcel Guardia

ASSOCIATE PROFESSOR AT UNIVERSITAT POLITÈCNICA DE CATALUNYA

marcel.guardia@upc.edu

Eva Miranda

PROFESSOR AT UNIVERSITAT POLITÈCNICA DE CATALUNYA

eva.miranda@upc.edu

Congresses and conferences attended

3a Jornada Sistemes Dinàmics a Catalunya

SOCIETAT CATALANA DE MATEMÀTIQUES

Barcelona, Spain

2018

DDays 2018 UNIVERSIDAD DE MURCIA	<i>Murcia, Spain</i> 2018
Hamsys2018 CENTRE DE RECERCA MATEMÀTICA	<i>Bellaterra, Spain</i> 2018
16th Workshop on interactions between Dynamical Systems and PDE's CENTRE DE RECERCA MATEMÀTICA	<i>Bellaterra, Spain</i> 2018
Perspectives in Hamiltonian Systems UNIVERSITÀ DEGLI STUDI DI PADOVA	<i>Venice, Italy</i> 2018
Geometry, Dynamics, Integrable systems MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY	<i>Moscow, Russia</i> 2018
15th Winter School : Recents Trends in Nonlinear Sciences DANCE-NET	<i>Logroño, Spain</i> 2018
CSF Hamiltonian Systems ETH INSTITUTE FOR THEORETICAL STUDIES	<i>Ascona, Switzerland</i> 2017
IV Congreso de Jóvenes Investigadores-Real Sociedad Matemática Española REAL SOCIEDAD MATEMÁTICA ESPAÑOLA	<i>Valencia, Spain</i> 2017
Satellite Dynamics and Space Missions: Theory and Applications of Celestial Mechanics SOCIETÀ ITALIANA DI MECCANICA CELESTE E ASTRODINAMICA	<i>San Martin al Cimino, Italy</i> 2017
Finite Dimensional Integrable Systems in Geometry and Mathematical Physics CENTRE DE RECERCA MATEMÀTICA	<i>Bellaterra, Spain</i> 2017
15th Workshop on interactions between Dynamical Systems and PDE's CENTRE DE RECERCA MATEMÀTICA	<i>Bellaterra, Spain</i> 2017
Llavefest: A Broad Perspective on Finite and Infinite Dimensional Dynamical Systems CENTRE DE RECERCA MATEMÀTICA	<i>Barcelona, Spain</i> 2017
Winter School in Conservative Dynamics ETH INSTITUTE FOR THEORETICAL STUDIES	<i>Engelberg, Switzerland</i> 2017
13th Winter School : Recents Trends in Nonlinear Sciences DANCE-NET	<i>Vigo, Spain</i> 2017

DDays DANCE-NET	<i>Salou, Spain</i> 2016
14th Workshop on interactions between Dynamical Systems and PDE's UNIVERSITAT POLITÈCNICA DE CATALUNYA	<i>Barcelona, Spain</i> 2016
II BGSMATH Junior Meeting BGSMATH	<i>Barcelona, Spain</i> 2016
GestaJunior UNIVERSITAT POLITÈCNICA DE CATALUNYA	<i>Barcelona, Spain</i> 2016
13th Winter School : Recents Trends in Nonlinear Sciences DANCE-NET	<i>Seville, Spain</i> 2016
Global Dynamics in Hamiltonian Systems UNIVERSITAT POLITÈCNICA DE CATALUNYA	<i>Vall de Núria, Spain</i> 2015
13th Workshop on interactions between Dynamical Systems and PDE's UNIVERSITAT POLITÈCNICA DE CATALUNYA	<i>Barcelona, Spain</i> 2015
12th Winter School : Recents Trends in Nonlinear Sciences UNIVERSIDAD DE VALLADOLID AND DANCE-NET	<i>Valladolid, Spain</i> 2015
Shilnikov Workshop. LOBACHEVSKY STATE UNIVERSITY OF NIZHNI NOVGOROD	<i>Nizhny Novgorod, Russia</i> 2014
Hamiltonian Dynamics, Non-Autonomous System and Patterns in PDE's. LOBACHEVSKY STATE UNIVERSITY OF NIZHNI NOVGOROD	<i>Nizhny Novgorod, Russia</i> 2014
7th DDAYS DANCE-NET	<i>Badajoz, Spain</i> 2014
Barcelona Mathematical Days SOCIETAT CATALANA DE MATEMÀTIQUES	<i>Barcelona, Spain</i> 2014
CNMAC- Congresso Nacional de Matemática Aplicada e Computacional SBMAC	<i>Águas de Lindóia, Brasil</i> 2012