

CURRICULUM VITAE

Juliane Fonseca de Oliveira

Phd in Mathematics University of Porto and University of Coimbra

Personal Information

Birth: January 5, 1989 - Lauro de Freitas/Bahia - Brazil

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Education

2011-2016 Ph.D., Mathematics, University of Porto and University of Coimbra, Portugal

- Title: *Bifurcation of Projected Patterns*
- Advisors: Professor Isabel Labouriau and Professor Sofia B.S.D. de Castro

2008-2011 B.S., Mathematics, Federal University of Bahia (UFBA), Salvador, Bahia, Brazil

- Title: *The Einstein Equation in Flag Manifolds $F(3)$ and $F(4)$*
- Advisor: Professor Evandro Carlos Ferreira dos Santos

2003-2006 High Education, Rotary College, Salvador, Bahia, Brazil

Research Interests

- Dynamical Systems: Equivariant bifurcation theory; pattern formation and hidden symmetries in symmetric physical systems; Reaction-Diffusion Systems; Turing instability.
- Crystals and quasi-crystals;
- Differential Geometry: flag manifolds; actions of Lie groups; Einstein equation; Ricci curvature; Einstein metrics.
- Epidemiology/Mathematical Modelling.

Awards and Grants

2017 Symmetry 2017 Conference Award-The First International Conference on Symmetry in Barcelona, <http://sciforum.net/conference/symmetry2017/page/207>

2012-2016 Brazilian National Council for Scientific and Technological Development (CNPq) grant (202332/2011-0) covering the studies towards the Ph.D. degree at the University of Porto.

2009-2011 CNPq research grant by the Institutional Scholarship Program of Scientific Initiation (PIBIC).

2009 Coordination of Improvement of Higher Education Personal (CAPES) scholarship by the Institutional Scholarship Program of Teaching Initiation (PIBID).

2008 Graduated scholarship awarded by the Center of Afro-Oriental Studies (CEAO) of the Federal University of Bahia.

2006 Honorable Mention and Regional Medal in the Brazilian Mathematical Olympiad (OBM), Brazil.

Scientific Publications

- Oliveira, J.F., Castro, S.B.S.D. and Labouriau, I.S., *Hexagonal Projected Symmetries*, Acta Cryst. A71 (2015) 549-558, DOI:10.1107/S2053273315012905
- Oliveira, J.F., Castro, S.B.S.D. and Labouriau, I.S., *Projections of Patterns and Mode Interactions*, Dynamical System: An International Journal, (2017), DOI: 10.1080/14689367.2017.1401590
- Gomes, M.G.M., Oliveira, J.F., Bertolde, A., Nguyen, A.T., Maciel, E.L., Duarte, R., Nguyen, B.H., Shete, P.B., Lienhardt, C., *Introducing risk inequality metrics in tuberculosis policy development*, (2017), preprint.

Postdoctoral fellowship/Work Visits

- **Project: Modelling and inference for population and ecosystem health, (IF/01346/2014), with the reference ICETA-2017-04.** Postdoctoral fellowship. Period: April 17th to December 16, 2017; Institutions: CIBIO-InBIO from ICETA, Portugal, and the Liverpool School of Tropical Medicine, United Kingdom. Grants from Fundacao para a Ciencia e a Tecnologia (FCT).
- **Project Singularities and Algebraic Theory in Dynamical Systems.** November 7-21, 2016, ICMC- University of São Paulo - São Carlos, Brazil. Grants from Fundação para a Ciência e a Tecnologia (FCT).

Invited Talks and Presentations

- **Projections of Patterns and Mode Interactions.** Symmetry 2017 Conference Award-The First International Conference on Symmetry in Barcelona.
- **Bifurcation of Projected Patterns**
 - Post-Graduate Seminar Group, ICMC, University of São Paulo - São Carlos, Brazil, 2016 (seminar)
 - Dynamical Systems Seminar, Department of Mathematics, University of Porto (UP), Portugal, 2016 (seminar)
- **Dimensionality of Pattern Formation in Reaction Diffusion Systems.**
 - Dynamical Systems Seminar, Department of Mathematics, University of Porto (UP), Portugal, 2016 (seminar)
 - Workshop dynamics in Networks with special properties, Mathematical Bioscience Institute, Ohio State University, The USA, 2016, with participation grants from CMUP and MBI, (poster)
 - Research Seminar Program (UC—UP Math PhD program), Department of Mathematics, University of Coimbra (UC), Portugal, 2015 (seminar)
- **Hexagonal projected Symmetries.**
 - Workshop on topics in applied dynamical systems: equivariance and beyond, Mathematical Bioscience Institute, Ohio State University, The USA, 2015, with participation grants from CMUP and MBI, (poster)
 - Algebra and Combinatorics Seminar, Department of Mathematics, University of Coimbra (UC), Portugal, 2015 (seminar)
 - Dynamical Systems Seminar, Department of Mathematics, University of Porto (UP), Portugal, 2014 (seminar)
- **Spatial Hidden Symmetries in Pattern Formation.** Seminar of the Mathematics PhD Program of UP-UC, University of Porto, Portugal, 2012 (seminar)
- **Smooth Structures on Projective Spaces and Grassmann Manifolds.** I Encontro Baiano de Pesquisa em Matemática, The State University of Santa Cruz, Ilhéus, Bahia, Brazil, 2010 (seminar)
- **Lie Theory and the Topology of Homogeneous Spaces.** XI Seminário de Pesquisa e Pós-Graduação, Federal University of Bahia, Salvador, Bahia, Brasil, 2010 (seminar)

- **Smooth structures on the Real Projective Space.** XXVII Seminário Estudantil de Pesquisa, X Seminário de Pesquisa e Pós-Graduação, Federal University of Bahia, Salvador, Bahia, Brasil, 2009 (seminar)
- **Applications in Winplot for Medium Education.** XII Encontro de Matemática da UFBA, Federal University of Bahia, Salvador, Bahia, Brasil, 2009 (seminar)
- **Exhibition of Mathematical Objects for Teaching - LEMA/UFBA.**
 - I Simposio Internacional do Ensino da Matemática (I International Symposium on Mathematics Teaching), Federal University of Bahia, Salvador Bahia, Brazil 2008 (exhibitor)
 - XI and XII Meeting on Mathematics of UFBA, Federal University of Bahia, Salvador Bahia, Brazil 2008 and 2009 (exhibitor)

Organization of Activities

- **Interntional Meeting of the American, European and Portuguese Mathematical Societies.** University of Porto, Portugal, 2015 (participation and organization)

School Participations

- **Heteroclinic Dynamics.** Prof. Mike Field (Rice University-USA and Imperial College-UK), University of Coimbra, Portugal, September 5-9, 2016, with participation grants from CMUP.

Participation in Conferences

- **2nd Porto Meeting in Mathematics and Biology.** University of Porto, Portugal, 2016
- **Workshop on Heteroclinic Phenomena - the role of Symmetry .** University of Porto, Portugal, 2016
- **Geometric Aspects of Modern Dynamics.** University of Porto, Portugal, 2016

Technical Skills

- MATLAB, HTML, Latex and Fortran

Language Skills

- English, Italian, Portuguese (Native Language)