ALEXANDRU IOSIF

BORN	14th of May, 1989; Ploiești, România

EDUCATION

Master in Mathematics High School Education at Universidad Autónoma de Madrid (2020-2021)

PhD in Mathematics at Otto-von-Guericke-Universität Magdeburg
Thesis: *Algebraic methods for the study of multistationarity in mass-action networks*
Advisors: Carsten Conradi (HTW-Berlin) and Thomas Kahle (OvGU-Magdeburg)
(Jan 2016 – Feb 2019)

Internship at Laboratorio de Óptica de la Universidad de Murcia (Sep – Oct 2015)

Master in Mathematics at Universidad Complutense de Madrid (2014 – 2015)

Bachelor in Physics at Universidad Complutense de Madrid (2008 – 2014)

CURRENT POSITION

Mathematics instructor at Rey Juan Carlos University
(since Jan 2023)

TEACHING AT UNIVERSITY

Saint Louis University – Madrid Campus:

Fall 2021	Calculus I
	Advanced Mathematics for Engineers
Spring 2022	Calculus I
	College Algebra (2 courses)
	Advanced Mathematics for Engineers (1/3 of a group)
Fall 2022	Calculus I
	Precalculus
	Principles of Mathematics

Rey Juan Carlos University:

Spring 2023	Matemáticas II
	Ampliación de Matemática Avanzada

EMPLOYMENT

Mathematics instructor at Saint Louis University – Madrid Campus
(Sep 2021 - Dec 2022)

Postdoctoral fellow at the Joint Research Center for Computational Biomedicine, UKA RWTH Aachen University (Mar 2019 - Aug 2020)

Research assistant at Otto-von-Guericke-Universität Magdeburg
(Sep 2017 – Feb 2019)

Research assistant at Hochschule für Technik und Wirtschaft Berlin
(Mar 2016 – Aug 2017)

Maths & Science Tutoring at Academia Las Rozas
(Summers of 2011, 2014 and 2015)

PUBLICATIONS

D. Grigoriev, A. Iosif, H. Rahkooy, T. Sturm, A. Weber, *Efficiently and Effectively Recognizing Toricity of Steady State Varieties*, Math. Comput. Sci. (2020)

C. Conradi, A. Iosif, T. Kahle, *Multistationarity in the space of total concentrations for systems that admit a monomial parametrization*, Bull. Math. Biol. 81 (10): 4174-4209 (2019)

INVITED TALKS	*Toric biochemical systems*: INRIA Saclay, Paris, Feb 24, 2020
	Sistemas bioquímicos tóricos: V Congreso de Jóvenes Investigadores – Castelló 2020, Jan 27 – 31, 2020
	Dynamical systems with toric positive steady states: Workshop on Algebraic and Analytical Methods for Dynamical Systems with Applications to Reaction Networks, Aachen, Apr 30, 2019
	The computation of discriminants in mass-action networks: 2017 SIAM Conference on Applied Algebraic Geometry, Atlanta, Aug 3, 2017
TALKS	*Euclides, Descartes y Sturm: la búsqueda de las raíces reales de un polinomio. ¿Demasiado anticuados para contarlos en el aula de Secundaria?* Seminario Didáctica de las Matemáticas, Universidad Autónoma de Madrid, July 15, 2022
	The Sturm discriminant of a linear section of a positive toric variety: Jíbiri Seminar IV, Zaragoza, June 1 – 3, 2022
	Dynamical systems with toric positive steady states: SYMBIONT Project meeting, Paris, Apr 4 – 5, 2019
	Mass-action networks with the isolation property: • First BYMAT Conference, Madrid, May 7 – 9, 2018 • Graduate Student Meeting on Applied Algebra and Combinatorics, Osnabrück Mar 23, 2018
	The computation of discriminants in mass–action networks: Meeting of the European SIAM Chapters 2017, Prague, Aug 29, 2017
	Astronomía de posición: Curso de Introducción a la Astronomía, ASAAF UCM, Madrid (2009 and 2011)
EXPERIENCE	Visting the Department of Specific Didactics at Autonoma University of Madrid May – July 2022
	Supervisor of an undergradutate student within the Programm DAAD RISE Germany OvGU Magdeburg, May–Aug 2018
	Fellows representative in the Management Board of the DFG-RTG "MathCore" OvGU Magdeburg, Sep 2017 – Sep 2018
	Co-organizor of the *Reading group in syzygies* OvGU Magdeburg & MPI MIS Leipzig, Oct 2017 – Feb 2018
	Co-organizor of the *Reading group in coding theory* OvGU Magdeburg, May – June, 2017
	Secretary of the Astronomy Club ASAAF

ASSAF UCM, Universidad Complutense de Madrid, 2008

CODE   https://bitbucket.org/alexandru-iosif/

CONFERENCES   Congreso Internacional "Ceci n'est pas une école: Educación, digitalización y pandemia"
Madrid, June 10 – 11, 2021

V Congreso de Jóvenes Investigadores
Castelló, Jan 27 – 31, 2020

SIAM Conference on Applied Algebraic Geometry
Bern, July 9 – 13, 2019

MEGA+MEGAR 2019
Madrid, June 17 – 22, 2019

Macaulay2 Workshop 2018
Leipzig, June 4 – 8, 2018

Workshop "Numerical methods for algebraic curves"
Rennes, Feb 19 – 23, 2018

Open Source Computer Algebra Research (OSCAR)
Leipzig, Dec 11 – 12, 2017

Algebra meets Numerics: Condition and Complexity
Berlin, Nov 6 – 7, 2017

SIAM Conference on Applied Algebraic Geometry
Atlanta, July 31 – Aug 4, 2017

Applied Macaulay2 tutorials
Atlanta, July 27 – 29, 2017

Foundations of Computational Mathematics
Barcelona, 10 – 19 July, 2017

Reading Group on Real Algebraic Geometry
Leipzig, July 3 – 7, 2017

Interactions between algebra and the sciences
Leipzig, May 27, 2017

Summer School on Multigraded Algebra and Applications
Moieciu, Aug 17 – 24, 2016

Summer School on Algebra, Statistics and Combinatorics
Helsinki, June 27 – July 2, 2016

Multiple Zeta Values, Multiple Polylogarithms and Quantum Field Theory
Madrid, 7 – 11 Oct de 2013

Quantum theory's influences on topology, analysis and geometry

Copenhagen, May 20 – June 1, 2013

Lorentzian Homogeneous Spaces
7 – 8 Mar, 2013

Recent Progress in Real Complexity and Computation
16 – 20 July, 2012

ONLINE
EDUCATION

The Ancient Greeks
Coursera, Wesleyan University, 2016

Pintura Europea: Leonardo, Rembrandt, Goya
edX, UC3MX, 2015

El enlace químico y las interacciones moleculares
edX, UPValenciaX, 2015

LANGUAGES

Romanian (native), Spanish (fluent), English (C1),
French (basic), Portuguese (basic), German (basic)

TECHNICAL
SKILLS

Emacs, Latex, M2, Maple, Mathematica, Python, Online teaching