ALEXANDRU IOSIF

BORN
14th of May, 1989; Ploiești, România.

EDUCATION
Master in Mathematics High School Education at Universidad Autónoma de Madrid.

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

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 the Saint Louis University – Madrid Campus
(since September 2021)

TEACHING AT UNIVERSITY
I have been teaching the following courses (at SLU – Madrid Campus):

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

EMPLOYMENT
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   Emacs, Latex, M2, Maple, Mathematica, Basic Python, Online teaching.
SKILLS